

**EMPLOYEE PERFORMANCE APPRAISAL SATISFACTION:  
THE CASE EVIDENCE FROM BRUNEI'S CIVIL SERVICE**

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## **ABSTRACT**

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Employee Performance Appraisal Satisfaction: The Case Evidence from Brunei's Civil Service

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Performance appraisal satisfaction is the extent to which the employee perceives performance ratings, which reflect those behaviours that contribute to the organisation. Even though performance appraisal satisfaction is the most frequently measured appraisal reaction, there are relatively few meta-analysis studies which link determinants of appraisal system to satisfaction with employee performance. The focus of this research is to examine the determinants affecting employee performance appraisal satisfaction in the Brunei public sector using data collected from among public sector employees, with particular emphasis on how performance is viewed and measured in the public sector. Data for this research were gathered across ten government ministries in Brunei. This research study adopts a 'mixed method approach', which utilises quantitative data supported by qualitative data. The qualitative interviews involved 14 participants, while the main quantitative data had 355 samples. Quantitative data was analysed using descriptive analysis and exploratory factor analysis run on SPSS, while confirmatory factor analysis, path analysis and structural equation modelling were also employed on applied analysis of moment structure (AMOS) to assess the model fit of the study and hypotheses testing. Results indicated that latent constructs (goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goals; fairness of the appraisal system; types of performance evaluation measures; format of rating scales; appraiser-appraisee relationship and credibility of appraiser; in-group collectivism; power-distance; and pay-for-performance constructs) were positively and significantly correlated to performance appraisal satisfaction. The results also showed that the goodness of fit indices offered an acceptable fit to Brunei's data.

The study findings advance current knowledge in the performance management domain by extending individual level theory of performance appraisal satisfaction and provide empirical evidence for performance appraisal and employee satisfaction at the individual level in the public sector. This study contributes theoretically by highlighting the unique effects of latent factors on employee performance appraisal satisfaction. The research also contributes in terms of methodology, in that this study contributes to the examination of the predictors of established models of performance management in a country which is culturally different from the environments in which these constructs were developed. This research has filled gaps by testing predictor variables in cross-cultural work settings, which may be useful in generalising these predictors. Furthermore, the examination of the conceptual framework using structural equation modelling is a methodological contribution in its own right. The presence of multivariate normality encourages the assessment of the measurement model by a confirmatory factor approach, using maximum likelihood estimation, which is an additional contribution to the method analysis.

## **DECLARATION**

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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### ***Paper Presented***

1. "Performance Appraisal and Employee Satisfaction in the Brunei's Civil Service: A Factor Analysis Approach", Paper presented at 2014 ISIS-PARIS International Multidisciplinary Academic Conference, Paris, France on May 11-13, 2014.
2. "Employee Performance Appraisal Satisfaction in the Brunei's Civil Service", Paper presented at SEED Ph.D. Conference, University of Manchester, United Kingdom on May 19, 2014.
3. "Performance Appraisal System Satisfaction in the Brunei's Civil Service: A Structural Equation Modelling Approach", Paper presented at 10<sup>th</sup> Academic Conference International Institute of Social and Economic Sciences, Vienna, Austria on June 3-6, 2014.

## LIST OF ABBREVIATIONS

AGFI	Adjusted Goodness of fit index
AMOS	Analysis of moment structure
ANOVA	Analysis of variance
APG	Alignment of personal objectives with organisational goals
ARC	Appraiser-appraisee relationship and credibility of appraiser
ASEAN	Association of South East Asian Nation
AVE	Average variance extracted
BARS	Behavioural anchored rating scales
BDI	Behavioural description inventory
BES	Behavioural expectation scales
BOS	Behavioural observations scales
CAS	Current appraisal system
CFA	Confirmatory factor analysis
CFI	Comparative fit index
CIPD	Chartered Institute of Personnel and Development
DEPD	Department of Economic Planning and Development, Brunei
<i>df</i>	Degrees of freedom
DMM	Distributional measurement model
$D^2$	Malahanobis's distance
EFA	Exploratory factor analysis
EP	Previous employee performance
FAS	Perceived fairness of appraisal system
GDP	Gross Domestic Product
GFI	Goodness-of-fit index
GNI	Gross National Income
GRS	Graphic rating scales
GSP	Goal setting and purposes of performance appraisal
HDI	Human Development Index
IGC	In-group collectivism
IMF	International Monetary Fund
INT	Interviewee
KMO	Kaiser-Meyer-Olkin
MANOVA	Mean analysis of variance
MI	Modification indices
MIB	<i>Melayu Islam Beraja</i> ('Malay Islamic Monarchy')
ML	Maximum likelihood
NFI	Normative fit index
OECD	Organization for Economic Cooperation and Development
PCA	Principal component analysis
PFP	Pay-for-performance
PSD	Public Service Department
PWD	Power-Distance
RMSEA	Root mean square error of approximation
RQ	Research Questions
RSF	Rating scales format
SD	Standard deviation
sig	Significance
SIC	Squared inter-construct correlations
SEM	Structural equation modelling
SPSS	Statistical Package for Social Science
TEM	Types of evaluation measures
TQM	Total quality management
UK	United Kingdom
UNDP	United Nations Development Programme
USA	United States of America
VIE	Valence, instrumentality and expectancy

VIF	Variation Inflation Factor
A	Cronbach's alpha
B	Standard regression coefficient
R	Pearson's coefficient
$r^2$	Squared multiple correlations
$\chi^2$	Chi square



# **EMPLOYEE PERFORMANCE APPRAISAL SATISFACTION: THE CASE EVIDENCE FROM BRUNEI'S CIVIL SERVICE**

## **CHAPTER ONE: INTRODUCTION**

### **1.1 INTRODUCTION**

The field of performance measurement has been the focus of much attention by academics and practitioners, in both public and private sector organisations, in recent years as a way to manage and control organisations. In the public sector, the measurement of performance is now an increasingly important part of the management of public services and intrinsic to performance management approaches. The measurement of units of production and activity has progressed from the measurement of outputs to the measurement of outcomes; this is now the focus of performance in public services (van Thiel and Leeuw, 2002; de Vries, 2010). At the heart of the performance management framework is the role of employee performance in achieving organisational goals. Individual employee performance is a core concept within work and organisational psychology and researchers have made progress in clarifying and extending the performance concept (Campbell, 1990; Koopmans *et al*, 2013). The focus of this research is to examine the determinants affecting employee performance satisfaction in the public sector of Brunei Darussalam (henceforth referred to as 'Brunei'), a tiny, oil-rich South East Asian country located on the north-western coast of the island of Borneo, with data collected from among Brunei's public sector employees, with particular emphasis on how performance is viewed and measured in Brunei's public sector.

There is a body of empirical research that suggests effective performance appraisals lead to a number of important work outcomes, such as improved employee productivity and quality, job satisfaction, commitment and trust (Daley, 1993; Ghorpade, *et al.*, 1995; Pettijohn, *et al.*, 1999; Mayer and Davis, 1999; Guthrie, 2001; Kuvaas, 2008; Omusebe *et al*, 2013). For example, Pettijohn, *et al.* (1999, p.39) examined the relationship between performance appraisals and salesperson performance and concluded that "properly conducted performance appraisals can have positive impacts on performance". Similarly, Daley (1993, p.169) carried out a study on North Carolina Municipal Government employees, investigating general performance appraisal practices and focussing on the use of explicit performance standards and found "a strong relationship between performance appraisal systems that have been adopted as means of

implementing pay-for-performance schemes and the productivity incentives that these systems provide". In the same vein, Omusebe *et al* (2013) found out that there was a positive and significant effect between performance appraisal and employee efficiency in Mumias Sugar Company in Kenya.

Performance appraisal satisfaction is the extent to which the employee perceives performance ratings reflect those behaviours that contribute to the organisation (Giles and Mossholder, 1990) and is considered the most consequential among all the variables that measure reactions to appraisal feedbacks (Giles and Mossholder, 1990; Keeping and Levy, 2000; Levy and Williams, 2004). Furthermore, several authors have addressed important conceptual issues about the meaning of performance appraisal satisfaction (Fletcher, 2001; Kuvaas, 2006; Decramer *et al*, 2013) while others have argued that, in order for performance appraisal to positively influence employee behaviour and future development, employees must experience positive appraisal reactions. If not, any appraisal will be doomed to failure (Cardy and Dobbins, 1994; Murphy and Cleveland, 1995). Even though performance appraisal satisfaction is the most frequently measured appraisal reaction (Giles and Mossholder, 1990; Keeping and Levy, 2000) and there is extensive research on factors that contribute to performance appraisal satisfaction or other reactions (Levy and Williams, 2004), there is still lack of empirical evidence on how and why satisfaction with performance appraisal matters. For example, in reviewing performance appraisal research, Levy and Williams (2004) called for more field research on the relationship between performance appraisal reactions and employee attitudes and behaviours.

Similarly, Den Hartog, *et al*. (2004, p.558) argued that the impact of individual and group performance on organisational performance is "mostly assumed rather than tested, and that to understand and change individual performance, one needs to understand the organisational context in which it occurs". Several researchers have also emphasised the importance of performance appraisal to effective human resource management and organisational productivity and effectiveness (Latham and Wexley, 1981; Bird, 1998; Analoui, 1999). The fact that humans have different individual life experiences, motivational levels, socio-demographic characteristics, knowledge, attitudes, values and behavioural patterns may contribute to organisational excellence and effectiveness. Thus, researchers and practitioners need to know as much as possible about the determinants for employee performance in order for management to

understand individual attitudes, beliefs and behaviours as contributing factors in achieving organisational goals.

In western developed countries, research has shown a shift from a micro-analytical approach (individual performance) to a macro-strategic approach (organisational performance) perspective (Cameron, 1978, 1981; Quinn and Rohrbaugh, 1981, 1983; Delaney and Huselid, 1996; Delery and Doty, 1996; March and Sutton, 1997; Selden and Sowa, 2004), but, the micro level approach in a country like Brunei is yet to be analysed. The macro-strategic approach suggests that performance management operates strategically at the organisational level, both team and individual, and that it is inter-linked to organisational strategy. Organisational and individual performance goals are set, employee performance is usually valued and there is often a mix of performance appraisal and incentive pay. For example, in their study of profit and non-profit firms, Delaney and Huselid (1996, p.949) found "positive association between human resource management practices such as training and staffing selectivity to perceptual firm performance measures".

Conversely, micro-analytical research to determine the relationship of employee behaviours and attitudes with performance has also created interest in the field of performance management literature, particularly in the western world. Studies have shown that there is a relationship between performance and personal factors, such as motivation (Naff and Crum, 1999; Brewer, *et al.*, 2000; DeVoe and Iyengar, 2002); commitment (Chen and Francesco, 2001; Meyer and Herscovitch, 2002; Vandenberghe, *et al.*, 2002; Elorza, *et al.*, 2011); competency (Rethans, *et al.*, 2002); and job satisfaction (Yousef, 1998; Judge, *et al.*, 2001; Bowling, 2007), as well as the introduction of performance-related pay (Prendergast, 1999; Lazear, 2000; Weibel, *et al.*, 2009). Similar inter-relationships are also found between performance and leadership factors (Block, 2003; Walumbwa and Hartnell, 2011; Belle, 2014) as well as team factors (Castka, *et al.*, 2003). With regards to system factors, studies have shown that there is a positive association of employee performance with organisational or workplace climate (Hunt and Ivergard, 2007) and organisational learning (Yeo, 2003; Aragon-Correa, *et al.*, 2007). Thus, there is a vertical and horizontal fit within the organisation as a system. This research study may be seen as an opportunity to validate and extend the findings of organisational and individual level performance conducted in western countries to a non-western context.

Earlier research on employee performance focused on methodological aspects of the concept of individual level performance. These research efforts made an important contribution to the field of performance management and measurement by developing techniques and procedure to generate accurate and practically useful performance-related data (Campbell, 1990; Kanfer, 1990; Campbell, *et al.*, 1993; Bates and Holton, 1995; Bernadin, *et al.*, 1995; Kane, 1996; Neely, *et al.*, 1997). This laid the groundwork that allowed researchers and practitioners to identify and examine several possible applications of performance-related information. Currently, some researchers in the west have moved a step forward by stressing the importance of employee performance as a strategic link-up to organisational performance and effectiveness (Martin and Smith, 2005; De Nisi and Pritchard, 2006). In Brunei, the impact of employee performance appraisal on organisational performance and effectiveness has yet to be explored. The reason for examining the Brunei public sector is because little is currently known about the micro-analytical approach to individual performance, let alone the macro-strategic approach to organisational performance, not only in Brunei's public sector, but Brunei as a whole.

About the size of Delaware in the U.S, Brunei is home to one of the world's longest continuously ruling dynasties. The concept of *Malay Islamic Monarchy* forms the basis of social and political life in the Sultanate of Brunei and the country has been deeply influenced by a dominant Malay culture, one shared by its neighbouring countries of Malaysia and Indonesia. In studies of eastern culture, research mainly focuses on Chinese and Japanese culture. However, there are other eastern cultures which are less known to the intercultural schools; one such is Malay culture. Some authors (Crouch, 1996; Mastor, *et al.*, 2000; Mohd Salleh, 2005) portrayed Malay culture as 'being polite, self-effacing and avoiding open conflict wherever possible'. For the author, it is interesting to discover how this notion of Malay culture, which is embedded in the very fabric of Brunei's collectivism and high power-distance society (Blunt, 1988), may impact on human resource practices such as performance management. With about 30% of the Bruneian population working in the public sector (DEPD Brunei), in which most are Malays, it serves as the biggest formal employer in Brunei. The civil service is the implementing apparatus of Brunei's policy, and the public sector acts, not only as the regulating authority or facilitator of growth, but also serves as the provider of public goods and services. It is here where the practice of good governance is both vital and critical. As nations become more competitive in the global economy, governments around the world have realised the need for more flexible, dynamic and responsive public sector organisations. More complex structures require improved management

systems, strategic human resource development, better economic and policy management and stronger financial control. In other words, they need good governance, and Brunei is no exception.

## **1.2 RATIONALE OF STUDY**

Why, then, is this study important? First, performance management is a new concept in Brunei and, as will be demonstrated later in the literature review, there is sparse evidence to indicate whether performance management is well managed in the public sector. However, in the context of the private sector, performance management systems have different performance appraisal systems. According to Yassin (2006), the present performance appraisal system in Brunei's public sector is form-oriented, seasonal and has established traits that are linked more to personal character than they are performance-related. The appraisal system is based on the annual performance appraisal form, which is subjective and based only on individual behaviours and traits. These core traits cover aspects such as knowledge of the job, punctuality, work management, decision-making, innovativeness, communication skills, reliability, leadership and commitment. Each trait is given a rating ranging from 0% to 100%, with the overall rating using a six-level ranking. The present performance appraisal system in the public sector seems to posit more weaknesses than strengths and often adopts a piecemeal approach, which is not integrated or linked with the organisational goals and missions of ministries and departments. In addition, although employees are given year-end bonuses as a reward for achieving specific grades in performance, there is no mechanism in terms of performance-related pay to reward those employees who have excelled in their work (Ibid). There is a perception among Brunei's civil servants that the appraisal system is biased, unfair and does not reflect the true measure of individual performance. Findings so far reveal that, despite some 99% of the civil servants (PSD Annual Report, 2005) having performance ratings of 'good' and above, it has not resulted in a significant improvement in the overall performance or productivity of the civil service (Yassin, 2006). Thus, the current performance appraisal system in Brunei is considered to be ineffective.

In addition, the need for a comprehensive appraisal system has been greatly emphasised over the years, especially by His Royal Highness, the Crown Prince of Brunei, who was the Senior Minister at the Prime Minister's Office at the annual Civil Service Day celebration in 2011. His Royal Highness underlined the need for the current performance

appraisal system to be reviewed to focus upon appraising productivity as well as to curb any negligence towards basic discipline. His Royal Highness later emphasised that the performance evaluation method needed to be more objective and effectively implemented in order to help gauge the actual capability of the individual, in relation to the achievement of the organisation; an approach which prioritises outcomes or work productivity, basic discipline and the individual's potential for better career progression. However, in regards to Brunei's public sector, there are more questions than answers. How satisfied are employees with the current performance appraisal system? Is the current subjective traits-based performance evaluation not a reliable indicator of an employee's actual performance? Are there any cultural implications for implementing subjective-based performance measures? Do work-related values in Brunei's public sector, operating at the macro or national level, generate a cultural atmosphere that is not receptive or conducive to performance management? These are some of the intriguing questions that need justification. If true, it may carry profound implications for indigenous and expatriate managers and consultants alike, and further implies that performance management interventions may need to be carefully adapted to suit the cultural environment. Continuing this line of analysis, this study hopes to revive a renewed interest in the theoretical aspect of performance appraisal in areas of performance evaluation measures that currently appear to be neglected in the public sector settings.

### **1.3 BACKGROUND AND SCOPE OF STUDY**

Researchers have emphasised that appraisal reactions play a crucial role in the development of favourable job and organisational attitudes and enhance motivation to increase performance (Lawler, 1994; Taylor, *et al.*, 1984). Of all the appraisal reactions, satisfaction of performance appraisal system has been the most frequently studied (Keeping and Levy, 2000). But why does satisfaction of performance appraisal matter? It is because of a critical link that exists between satisfaction with the appraisal process and appraisal effectiveness (Bernadin and Beatty, 1984; Dobbins, *et al.*, 1990). Since appraisals are designed to help organisations retain, motivate and develop their employees (Mount, 1983), there can be little hope that these outcomes will occur if individuals are dissatisfied with the process. If ratees are not satisfied or perceive a system as being unfair, they will be less likely to use performance evaluations as feedback to improve their performance (Ilgen, *et al.*, 1979).

In this research study, the main assumption is that satisfaction of performance appraisal is viewed as the outcome construct. Accordingly, the focus of the study is on satisfaction of the appraisal system as an outcome, specifically in the context of civil service employees in Brunei. The second assumption is that performance appraisal satisfaction is a function of an aggregate of different independent constructs that influence the dynamics of the outcome variable. The high relevance of individual level performance is also reflected in work and organisational psychological research. Continuing the line of performance analysis, Sonnentag (2002, p.4) found out that "about a half (54.8%) of 146 meta-analyses within the past 20 years addressed individual performance as a core construct. In the majority of the meta-analyses, individual performance was the dependent variable or outcome measure (72.5%). In about 6% of those meta-analyses that included individual performance measures, individual performance was the independent or predictor variable. Twenty-one percent of the meta-analyses addressed performance appraisal and performance measurement issues". The widespread use of individual performance measures in meta-analyses shows that individual performance is a key variable in work and organisational development. It is interesting to note that appraisal reaction is mainly treated as a dependent variable, which makes perfect sense from a practical standpoint in that individual performance is something organisations want to enhance and optimize.

Since performance appraisal is often considered as one of the most important human resource practices (Judge and Ferris, 1993; Boswell and Boudreau, 2002; Kehoe and Wright, 2013) and is one of the more heavily researched topics in work psychology (Fletcher, 2002), the construct validity of performance measures is critical. The convergent validity of performance measures is important to academics and practitioners, alike; for the former, it is important to hypothesise test validity and theory construction, whereas the latter are interested in accurately assessing employee performance to utilize scarce resources. Previous research has shown that the indicators of performance in the public service are multi-dimensional (see Carter, *et al.*, 1992; Kelly and Swindell, 2002; Boyne, 2003). This is because public organisations are required to address a range of objectives, some of which may be in conflict. Public sector indicators and targets cover the various spectrums of performance, which may include output volume, output quality, efficiency and outcomes or effectiveness (Boyne, 2002). Moreover, as a service provider, the public sector will be faced with difficulties of quantifying its main performance measures, such as customer satisfaction, service delivery and the quality of service as well as the importance of public service motivation for the performance of public organisations (Petrovsky and Ritz, 2014). Thus, finding the

right determinants of performance measurement is a perplexing problem that has challenged organisations in both the public and private sectors. Landy and Farr (1983) categorised performance data as either subjective (judgemental measures) or objective (non-judgemental measures). For over three decades, academics have debated the merits of subjective and objective measures of performance (Carter, *et al.*, 1992; Kelly and Swindell, 2002). However, some authors (Pandey and Moynihan, 2006; Meier and O'Toole, 2003) agree that both objective and subjective measures of performance have been used in studies of the determinants of performance in public sector organisations.

In the same vein, the concept of reward-based performance measures (Prendergast, 1999; Lazear, 2000; Weibel, *et al.*, 2009), as well as team-based measures (Campion, *et al.*, 1993; 1996), as indicators affecting the effectiveness of employee performance needs further exploration. A number of researchers, including Armstrong and Baron (1998), Murphy and Cleveland (1995) and Tziner, *et al.* (1998), have identified and investigated the relative importance of the factors and measures influencing performance, particularly at the organisational level in the private sector. However, little is known about the complexity of the public sector. This includes the use of team-based and reward-based measures which have been adopted by many organisations. There is still limited empirical evidence that team-based measures are a better representation of employee performance (LePine, *et al.*, 2000). In addition, various authors, such as Bannister and Balkin (1990), Heneman (1990) and Marsden and Richardson (1994), have debated whether rewards and pay-for-performance actually enhance organisational commitment and promote organisational effectiveness and job satisfaction.

It is said that the very construct of performance is multi-dimensional (Rao, 2004) and 'culture-bound' (Aycañ, 2005). As such, it is very likely that managers and employees view performance differently in different cultures, thus leading to both inter-cultural and intra-cultural differences in the interpretation of performance. Therefore, in an individualistic culture, one could expect the emphasis to be that of individual effort and outcomes calling for objective and quantifiable performance criteria (Harris and Moran, 1996). A highly individualistic culture promotes and rewards employees based on their individual accomplishments, with an additional focus on immediacy of action and reward. There is an emphasis on autonomy, freedom, independence and self-reliance (Triandis, *et al.*, 1990). By contrast, in collectivist cultures, cultural mechanisms tend to promote the importance of one's interdependence with others (Frucot and Shearon, 1991). In addition, collectivist cultures are more likely to reward group loyalty, conformity and



harmonious relationships (Tung, 1984; Sinha, 1990). The emphasis is on groups. Many organisations are designed around cohesive groups in which individual jobs are de-emphasised. Clearly, since performance is viewed differently in different cultures, taking into account employee behaviours and attitudes in the performance management cycle, there is a need to design, evaluate and manage performance according to the local context. Thus, this raised the issue of cultural fit. However, where does a developing Asian country like Brunei stand in this concept? Is there any Asia Pacific model for performance measurement system in the public sector? Can it be that a performance measurement system needs to be addressed ethnocentrically, or can it be approached in a polycentric way? The answers to these questions are certainly not straightforward and will be dealt with in later chapters.

#### **1.4 THE CONTEXT OF THE STUDY**

The focus of the research is on Brunei, a small Southeast Asian country situated on the island of Borneo. The major racial components consist of Malays (65.7%), Chinese (10.9%) and other races (23.4%). The majority of the population is of Islamic religion. In the recent Human Development Index (HDI) Report 2011, commissioned by the United Nations Development Programme (UNDP), Brunei was ranked 33 out of 187 countries in the 'very high' human development category. According to the World Bank, Brunei's economy is classified as a high income, non-OECD country with GNI per capita (based on purchasing power parity) of US\$49,730 (World Bank, 2009), which is slightly lower than neighbouring Singapore (US\$55,380), but higher than Malaysia (US\$14,110). Brunei's per capita income is one of the highest in Asia and it has already achieved almost all the targets of the Millennium Development Goals. With an HDI of 0.838, the IMF has designated Brunei as a developed country. Brunei, a British colony prior to 1984, is an independent sovereign Sultanate, which is governed on the basis of a written constitution. Brunei's government is structured along the lines of the UK's Westminster model and has a formal ministerial system with 12 ministries and about 120 departments. His Majesty, the Sultan of Brunei, is the head of state and also acts as the Prime Minister, Minister of Defence and Minister of Finance. The Prime Minister's Office is the central coordinating body for all government ministries and agencies in areas of national policy formulation and implementation. It also acts as the central agency in the management and administration of the government and the civil service. Its function includes the setting up of civil service policies, administrative procedures and guidelines, as well as the management of their implementation.

Concern over the strength of Brunei's civil service is outlined in Brunei's new long-term development framework, which encompasses a national vision, or 'Brunei Vision 2035'. This national vision aims to establish Brunei, by 2035, as a nation widely recognised for the accomplishment of its educated and highly skilled people, as measured by the highest international standards, with a quality of life among the world's top 10 nations and a dynamic and sustainable economy with an income per capita within that of the world's top 10 countries. To ensure the accomplishment of this high-profile goal, one of the core strategies that have been identified with respect to the achievement of public service excellence is the 'institutional development strategy'. This strategy aims to enhance good governance in public and private sectors, high quality public services, modern and pragmatic legal and regulatory frameworks and efficient government procedures that entail a minimum of bureaucratic red tape. At the heart of this institutional development is the government's need to evaluate the performance of all its civil servants. As the largest employer in Brunei, the Civil Service has been responsible for the country's political stability, peace and prosperity. In the context of Brunei, a civil servant is any employee working for the Brunei Government, except those in the Armed Forces or the Police Force.

Based on the author's observations from having worked for the Brunei Government for more than ten years, the current performance appraisal system in Brunei's public service is based on the annual appraisal form. Currently, there is only one standard performance appraisal system in Brunei's public service; this was developed by Brunei's Public Service Department back in 1988 and is still being used by all employees across all levels of government ministries and departments across the country. Currently, Grade I and II, Grade III and IV and Grade V, respectively, each have three different performance appraisal forms and the appraisal criteria consists of general and specific criteria and traits. But, how effective is the current performance appraisal system? Are employees satisfied with their appraisal system? What are the issues and challenges involved? These issues will be addressed in later chapters.

## **1.5 AIMS AND OBJECTIVES OF STUDY**

This doctoral research aims to examine the factors and determinants affecting satisfaction with the employee performance appraisal system, with particular emphasis on how performance is viewed and measured in Brunei's public sector. The research objectives are as follows:-

- i. To identify the rationale and theoretical perspectives of performance management and their applications and limitations, particularly within the public sector domain;
- ii. To empirically examine the attributes of the performance appraisal system used in evaluating individual employee performance in Brunei's public sector ;
- iii. To develop a conceptual framework of how employees across all levels in Brunei's public sector develop their attitudes and behaviours regarding performance evaluation methods in the public sector;
- iv. To test the conceptual framework in Brunei and determine the extent to which western-developed theories can be applied in a developing country;
- v. To identify key practical recommendations and approaches for a better performance measurement system in Brunei's public service.

The research study hopes to assist managers, change agents and human resource practitioners in the public sector in assessing, designing and evaluating new or existing programmes in relation to performance measurement systems, not only in Brunei's public services, but in other South-East Asian countries that share similar cultural settings.

## **1.6 RESEARCH METHODS AND METHODOLOGY**

As noted above, the main aim of this research is to examine the factors and determinants affecting satisfaction with the employee performance appraisal system, with particular emphasis on how performance is viewed and measured in Brunei's public sector. The study is developed from literature reviews and conceptual approaches. A conceptual framework of performance measurement systems in the public sector is also developed. From the conceptual approach, a series of research hypotheses are generated in relation to dependent and independent constructs. The study is conducted based on the author's experience and reflection of working with the Government of Brunei for more than 10 years and the fact that performance management and measurement systems are under the jurisdiction of the Brunei Public Service Department, where the author is currently employed. With regards to Brunei's public service performance data, the author has access through the Department's internal reports, databases and documents.

This research study adopts a 'mixed method approach' to explore the effectiveness of employee performance in the Bruneian context. In addition, it is an analytical research, as it goes beyond the phenomenon of the performance management domain by addressing causality or relationships among factors or determinants that are perceived to influence employee performance in a specific context. Furthermore, the research is also predictive, as it defines the dimensions and significance of relevant factors, and exploratory, in the sense that cultural dimensions are taken into account. This research study utilises quantitative data, supported by qualitative data. The sheer size of Brunei's civil service, with some 47,000 employees, justified the use of quantitative data, as shown by the scale of this PhD research. Quantitative data are also used, mainly because such data sets are often more objective and focused on the phenomenon of interest. Quantitative methods or similar strategies are used because, according to Bryman and Bell (2007, p.28), they are "a research strategy that emphasised quantifiable data collection and used a deductive approach which incorporated positivism to reflect a view of social reality as an external objective reality". By contrast, qualitative methods usually emphasise description rather than quantification in the collection and analysis of data and generally adopts an inductive approach to the correlation between theory and research.

This research study measures the relationship between independent and dependent variable factors. Initially, the research started from the review of extensive literature and then developed a conceptual approach for the empirical examination. Based on the author's literature search, this is the first such major study that will look at different variables that may influence employee performance satisfaction in Bruneian settings. Thus, a quantitative approach using survey questionnaire to capture the initial determinants of employee performance may seem to be the obvious approach. According to the conceptual approach, and with the support of theories, this research has developed hypotheses and examines the relationship between independent and dependent variables. Gilbert (2001, p.19) suggested that post-positivism uses deduction, starting with the adoption of hypotheses. According to Hussey and Hussey (1997, p.55), the normal process under a positivistic paradigm is to study theory and construct hypotheses, which are then tested by collecting appropriate data. The main reason for adopting a quantitative approach to data collection is that this research intends to measure the relationship between independent and dependent variables in the public sector. The ontological position suggests the realist position, whilst the epistemological position allows objective and independently observable facts. Burrell and Morgan (1979, p.5) suggested that "quantitative research seeks to explain and predict

what happens in the social world by searching for patterns and causal relationships between its constituent elements". This method is more suitable when the object of the research is to gather data related to the frequency of occurrence of phenomena. This is in line with Gilbert (2001, p.32), with the aim to develop valid and reliable ways of collecting 'facts' about society, which can then be statistically analysed in order to produce explanations about how the social world operates.

However, in order to validate the findings obtained from the survey questionnaires in the quantitative approach, as well as explaining what is behind those 'numbers', a qualitative approach, in the form of semi-structured interviews with senior and top management across the civil service, is also to be conducted. This is to ensure richer and reliable data obtained in the study. Thus, the overall approach used in this study is that of mixed methods. The triangulation approach is then adopted to analyse the overall findings. The study is divided into three parts: exploratory interview sessions, a pilot study and a main study, which are enacted through survey questionnaires distributed to various targeted employees in Brunei. The qualitative research is conducted through both semi-structured and open-ended interviews with the aim of acquiring information to provide a better insight and understanding of the research phenomenon, as well as acquiring additional measurement items concerning the research settings. The pilot study is carried out with employees working across all levels in Brunei's ministries. The main study is done by distributing pre-tested survey questionnaires to various employees across all levels (managerial, officer, supervisory and clerical) of government ministries and departments in Brunei. The questionnaire is distributed by mail to 500 people out of the possible 47,000 employees in Brunei's public sector. A set of questionnaires using a five-point Likert scale response format is adopted, comprising of the types of performance evaluation measures: objective, subjective (Delaney and Huselid, 1996); team-based measures (Campion, *et al.*, 1993; 1996) and dimensions of culture (Hofstede, 1984; Singelis, 1994). The questionnaire is designed in the Malay language, which is the official language used in daily communication within the Brunei Government. Survey items are related with the variables used to develop the hypotheses for the study. Items adapted in the questionnaire are applied to obtain information about the variables for analysis of the hypotheses.

For the quantitative data analysis, the treatment of missing data, descriptive statistics, outlier examination, linearity test, normality of data, homoscedasticity, exploratory factor analysis and reliability analysis tests are carried out by using Statistical Package for Social Sciences (SPSS) for Windows. Exploratory and confirmatory factor analyses, as

well as structural equation modelling techniques, are employed in the data analysis. Validity and reliability are assessed using factor analysis. Analysis of moment structure (AMOS) software is used to perform the confirmatory factor analysis, path analysis and the structural equation modelling, as well as testing the relationship of the hypotheses. The conceptual model is tested using regression analysis and structural equation modelling to identify whether the relationship or correlation (if any) between the independent and dependent variables is significant, and whether it supports the previous findings or not. The main goal of the analysis will be to assess the plausibility of the model as a whole and to subsequently decide whether the model is a good or poor fit.

### **1.7 RESEARCH CONTRIBUTIONS AND SIGNIFICANCE OF THE STUDY**

This study contributes in many ways. Firstly, the study is based on the development of a conceptual framework that examines individual level factors and determinants for employee performance satisfaction in the Brunei public sector. To the author's best knowledge, this study is the first of its kind in which such a conceptual framework has been developed and tested, empirically and theoretically, in Brunei.

Secondly, the conceptual framework developed in the study takes into account the cultural settings that seemed to be absent in previous studies. This research will relate to employee and organisational performance literature and applies Hofstede's cultural dimensions to the developing Asian country of Brunei. It is the first such study to empirically explore and use Hofstede's cultural dimensions with individual level factors in the Brunei public sector.

Thirdly, this research seeks to acquire empirical evidence from a relatively new and unexplored cultural context, taking into account that most of the previous studies were conducted in western developed countries, such as the USA, UK and other major European countries as well as Australia. Little is known about the eastern world, such as Asia and the Far East, in terms of organisational performance validity. This is, indeed, significant in permitting a test of the wider validity of findings derived from research conducted in the South East Asian (ASEAN) context.

Fourthly, most of the research that has been done focused on the holistic and management aspect of firm performance of the organisation in the private sector. However, little is known about establishing *the individual models of performance*,

particularly in the complex settings of the public sector. This study seeks to test the framework primarily developed for the private sector and, through empirical investigation, will seek to validate the findings for the public sector.

## **1.8 STRUCTURE OF THE THESIS**

The thesis is structured in nine chapters, reflecting the developing nature of the study.

### **Chapter 1: Introduction**

The first chapter provides the introduction, rationales, background and scope of the study, as well as the aims and objectives. It then addresses the proposed research methods and methodology, as well as the research contributions and significance of the study. It concludes with a review of the thesis structure.

### **Chapter 2: Literature Review**

This chapter aims to discuss performance management systems by taking a detailed insight from the extant literature on the issues that have a direct impact on individual levels of employee performance. The chapter commences with the theoretical background of performance management, detailing the nature and definition of performance, the underpinning theories of performance and performance appraisal satisfaction, as well as addressing the issue of performance management and measurement practices in the public sector. The author then looks into the performance appraisal process, including performance evaluation measures, subjective and objective measures of performance and team-based measures, as well as rewards and performance-related pay. The importance of performance ratings defined by a rating scales format in performance appraisal is also examined. This chapter presently reveals the cultural settings of performance management, followed by performance measurement systems trends in the Asia Pacific Region and the practice of adopting and implementing western-developed theories, taking into account the unique strengths and variations of societal culture. How the factors and types of performance evaluation measures blend in with public management and cultural settings is also examined.

### **Chapter 3: Setting and Context of the Study**

This chapter focuses on the background and overview of Brunei, including an overview and structure of the Government System and the Civil Service, as well as the national

policy aspect of public management initiatives in Brunei. The performance appraisal system currently practiced in Brunei public services, such as the use and purposes of performance appraisal systems, as well as the stages of an open appraisal system are then outlined.

#### **Chapter 4: Conceptual Framework**

The purpose of this chapter is to develop research hypotheses to examine determinants for employee performance satisfaction in the public sector. To address the hypotheses effectively, the researcher combined a set of key factors - goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goals; fairness of the appraisal system; types of performance evaluation measures; format of rating scales; appraiser-appraisee relationship and credibility of appraiser; in-group collectivism; power-distance; and pay-for-performance variables - and examined how these independent factors related to the dependent construct, which is satisfaction with the performance appraisal system. This is followed by the clarification of the research area and the development of a conceptual framework of performance measurement systems in Brunei's public sector. Gaps in the research are identified and discussed.

#### **Chapter 5: Research Methodology**

This chapter presents a detailed discussion of the empirical research methodology, including data collection and data analysis procedures. The data collection includes developing survey questionnaires, measurement scales, sampling procedures and pilot study, as well as developing interview questions. Validity and reliability tests are discussed to justify the data. Data analysis techniques for the main study are also discussed. Initial data examination and screening for the main study are also conducted in this methodology chapter. Finally, ethical issues are discussed to ensure that the data are not biased.

#### **Chapter 6: Qualitative Findings and Analysis**

This chapter presents the findings from exploratory qualitative study and gives an analysis of rich qualitative data from selected interviews related to the research themes. A key summary of the interview findings is then presented.



## **Chapter 7: Quantitative Findings and Analysis**

This chapter presents the findings from the pilot study and main study analysis. For the pilot study, this consists of the research protocol, pilot study results and analysis of data, as well as feedback from the piloted survey questionnaire. The main study findings and analysis are then presented using descriptive statistics, exploratory and confirmatory factor analysis and structural equation modelling, as well as model fit. The data are analysed using various elements in SPSS and AMOS version 20. The outcome of the hypotheses testing is then presented.

## **Chapter 8: Discussions**

The findings from the main quantitative study, as well as the qualitative study and results of hypotheses testing, are discussed in detail and compared with previous research.

## **Chapter 9: Conclusions and Recommendations**

The aim of this final chapter is to summarise the main findings and conclusions derived from the research. It also presents research contributions and implications and then reports the limitation of the research process. Finally, the chapter concludes with critical recommendations and directions for future research, as well as author's own personal reflections on this study.

For the purpose of data analysis in this research, some of the key terms are quite technical and the definitions of these terms are as shown in [Appendix 1](#).

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 INTRODUCTION**

The previous chapter provided a brief setting of the study. This chapter aims to discuss performance management systems by taking a detailed insight from the extant literature on the issues that have a direct impact on individual level of satisfaction with the performance appraisal system. The chapter commences with an overview of individual performance, followed by the theoretical background of performance management detailing the nature and definition of performance; underpinning theories of performance; and performance appraisal satisfaction, as well as addressing the issue of performance management and measurement practices in the public sector.

This research then investigates the performance appraisal process, such as performance evaluation measures, subjective and objective measures of performance and team-based measures, as well as reward-based performance. The importance of performance ratings defined by rating scales format in performance appraisal will be examined. This chapter later reveals the cultural settings of performance management along with performance measurement systems trends in the Asia Pacific Region and the practice of adopting and implementing western-developed theories, taking into account the unique strengths and variations of societal culture. How the factors and types of performance evaluation measures blend in with public management and cultural settings are then examined.

### **2.2 INDIVIDUAL PERFORMANCE: AN OVERVIEW**

Most human resource management scholars (Latham and Wexley, 1994; Randell, 1994; Bernardin, *et al.*, 1995) and other organisational researchers (Waldman, 1994; Longenecker and Fink, 1999; Koopmans *et. al*, 2013) have advocated that employee performance is a key mechanism in achieving organisational effectiveness. However, much of the research that has developed on performance within the public sector context has tended to concentrate on developing *organisational models of performance*. This has been done either empirically and inductively (Carter, *et al.*, 1992) or more normatively (Moore, 1995). Some work has also placed an emphasis on the complex levers controlling performance within individual organisations (Behn, 2001; Norman, 2003). However, little work has focused on measuring *individual level of performance* in the complexity of the public sector. The changing trends and nature of work, the work environment and sectors, the different types of performance evaluation measures, the evolving format of rating scales and the various uses of performance information are some of the main challenges in performance management that need to be addressed.

The high relevance of individual performance is also reflected in work and organisational psychological research. In studies of organisations, performance sometimes appears as an independent variable, but it is more likely to appear on the left side of the equation as a dependent variable (March and Sutton, 1997). This emphasis is most explicit in the field of organisational strategy, which is often defined as having organisational performance as its primary focus, but the idea that performance is to be predicted, understood and shaped is commonplace throughout the field. To get a clearer picture of the importance of individual performance in recent empirical research and to justify findings from March and Sutton (Ibid), the author conducted an online literature search of the past 20 years (1994 - 2014) in six of the major work and psychological journals: *Academy of Management Journal*; *Administrative Science Quarterly*; *Human Performance*; *Journal of Applied Psychology*; *Journal of Management*; and *Personnel Psychology*. These six journals mainly cover a broad range of individual, group level and organisational level phenomena. Based on this literature search, the author found a total number of 62 meta-analyses within the past 20 years. Among these meta-analyses, more than half (58.1%) addressed individual performance as a core construct. In the majority of these meta-analyses, individual performance was the dependent variable or outcome measure (72.3%). In some 27.7% of those meta-analyses that included individual performance measures, individual performance was the independent or predictor variable. In addition, about 4.8% of the meta-analyses included individual performance as both a dependent and independent variable. From the findings of the literature search, the widespread use of individual performance measures in single studies and meta-analyses shows that individual performance measures are a key variable in work and organisational psychology. Interestingly, individual performance is mainly treated as a dependent variable, which makes the perfect sense since individual performance is something an organisation would want to enhance and optimize. However, what is exactly meant by the word 'performance'?

## **2.3 THEORIES OF PERFORMANCE MANAGEMENT**

### **2.3.1 Definition of Performance**

Despite the great relevance of individual performance and the widespread use of job performance as an outcome measure in empirical research, relatively little effort has been spent in clarifying the performance concept (Campbell, 1990). Bates and Holton (1995) suggested that performance is a multi-dimensional construct, the measurement of which varies depending on a variety of factors. Kane (1996, p.124) argued that "*performance is something that the person leaves behind and that exists apart from the*

*person*". Bernadin, *et al.* (1995, p. 463) were concerned that performance should be defined as the outcomes of work (dependent variable), because *"they provide the strongest linkage to the strategic goals of the organisation, customer satisfaction and economic contributions"*. However, is performance a behaviour which is an independent variable, or an outcome which is a dependent variable? Campbell (1990, p. 343) believed that performance was behaviour and should be distinguished from the outcomes, *"because they can be contaminated by systems factors"*. However in general, several authors have agreed that, when conceptualizing performance, one has to differentiate between an action or behavioural aspect and an outcome aspect of performance (Kanfer, 1990; Campbell, 1990; Campbell, *et al.*, 1993).

A more comprehensive view of performance is achieved if it is defined as embracing both behaviours and outcomes. This was well put by Brumback (1988, p.387) who pointed out that:-

*"Performance means both behaviours and results. Behaviours emanate from the performer and transform performance from abstraction to action. Not just the instruments for results, behaviours and also outcomes in their own right – the product of mental and physical effort applied to tasks – and can be judged apart from results"*

This is in line with the author's previous online literature search wherein 4.8% of the meta-analyses included individual performance as both a dependent and independent variable. Thus, the various definitions of performance above suggest that, when managing the performance of teams and individuals, both inputs (behaviour) and outputs (results) need to be taken into consideration. Other definitions of performance by various authors as a function of selected variables are shown in Table 2.1.

Author's Name (s)	Year	Definition of Performance
Vroom	1964	$f$ (ability x motivation)
Blumberg and Pringle	1982	$f$ (individual attributes x work effort x organisational support)
Campbell	1990	$f$ (declarative knowledge x procedural knowledge x motivation)
Cardy and Dobbins	1994	$f$ (system factors and person factors)
Boxall and Purcell	2003	$f$ (ability + motivation + opportunity to participate)

*Table 2.1: Various Definitions of Performance as a Function of Different Variables (source: author's work)*

Performance is always associated with performance management and performance measurement. The process of performance management and measurement involves stages that need to be recognised and supported. Armstrong (2006, p.1) defined performance management as *"a systematic process for improving organisational performance by developing the performance of individuals and teams"*. This is a conceptual, organisation and operational definition that has been found useful in researching performance measurement. In similar vein, De Nisi and Pritchard (2006) argued that performance management is a broad set of activities aimed at improving employee performance. The essence of performance management is the development of individuals with competence and commitment, working towards the achievement of shared meaningful objectives within an organisation that supports and encourages that achievement (Lockett, 1992). According to Armstrong (2006, p.1), the purpose of performance management is *"to get better results from a whole organisation, or teams and individuals within it, by understanding and managing performance within an agreed framework of planned goals, standards and competence requirements"*. Performance management is essentially concerned with enhancing the value adding process, i.e. by increasing the productivity and quality of the relationship between organisational inputs/resources, outputs delivered and outcomes achieved as the performance relationship, as follows:

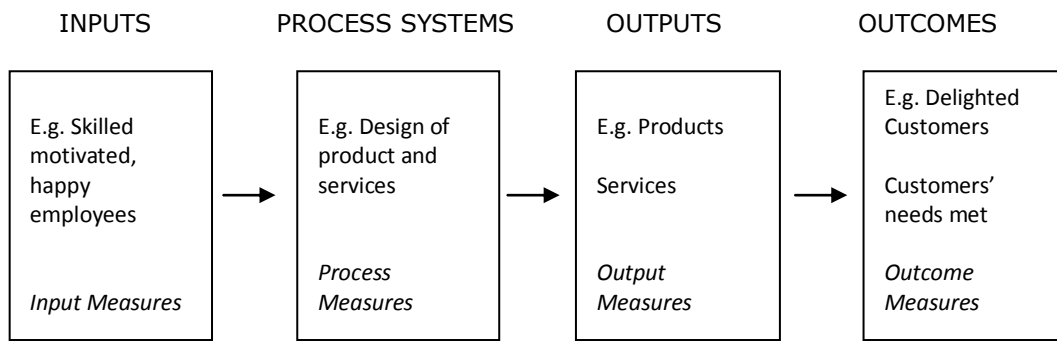


Figure 2.1: Performance Relationship (adapted from Brown, 1996)

However, there is no single universally accepted model of performance management in use; rather, the management literature advances a number of separate contributions and that these can be expressed as a 'performance measurement cycle' consisting of five elements (Storey, et al., 1998), namely: (1) setting performance objectives; (2) measuring outcomes; (3) feedback of results; (4) rewards linked to outcomes; and (5) amendments to objectives and activities. This is shown in Figure 2.2 below.

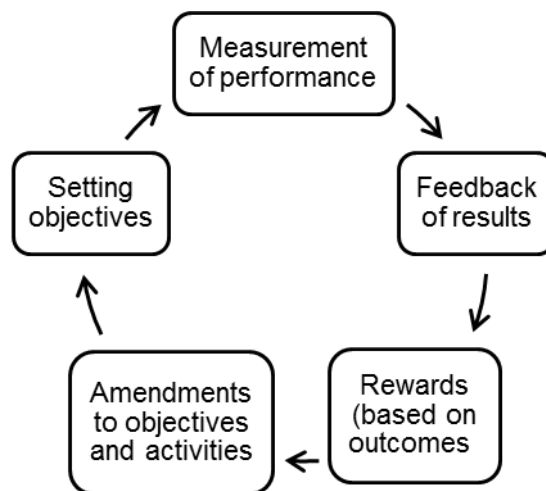


Figure 2.2: The Performance Management Cycle (adapted from Storey, et al., 1998)

The level at which a performance management system operates will vary according to how the organisation chooses to apply the model, or the level at which the commentator analyses the process. This means that there is nothing in the model to indicate that the elements apply to the management of individual employees, or the groups and teams or the organisation as a whole; in principle, the framework can be applied to any and all of

these (Ibid). However, for the purpose of this research, the main focus of performance management will be that of the individual employee and the model will be applied at the individual level.

On the other hand, performance measurement refers to "*the process of quantifying the efficiency and effectiveness of past actions through acquisition, collation, sorting, analysis, interpretation and dissemination of appropriate data*" (Neely, 1997, p.7). This is in line with Ilgen and Schneider's definition of performance measurement as "*the quantification of what was done*" (1991, p. 73). Nathan (2009) argued that performance measurement should not be confused with performance management, because measuring performance is a necessary, but not sufficient, condition for performance management. This means that performance measurement represents the process of adopting measures and performance dimensions, such as outcomes, productivity, output, efficiency and so on, are the elements characterising this process (Sole, 2009), whilst performance management refers to the actual use of performance measures.

### **2.3.2 Underpinning Theories of Performance Management**

In the traditional academic discipline of social sciences, there are five basic disciplines, namely anthropology, economics, political science, social psychology and sociology (Steuer, 2003). In the context of performance management, the principal theoretical foundation is social psychology. As the name suggests, social psychology is interested in the psychology of interpersonal relations in a variety of social settings, including communities, work organisations and other groups. With regards to performance management, there are several dynamic theories that support the concept of performance from the social psychology theory point of view. These include the goal-setting theory (Latham and Locke, 1979); expectancy theory (Vroom, 1964); equity theory (Adam, 1963); self-efficacy theory (Bandura, 1982); two-factor motivation theory (Herzberg, *et al.*, 1959); procedural justice theory (Thibaut and Walker, 1975) and reinforcement theory (Hull, 1951). The summary of the core elements for each theory is as in Table 2.2. Among these theories, some of those primarily related to work motivation are described as follows:-

### 2.3.2.1 Equity Theory (Adam, 1963)

Equity theory is based on the premise that a worker perceives the relationship between *outcomes*, what the employee gets from a job and organisation, and *inputs*, what the employee contributes to a job and organisation. Outcomes include pay, fringe benefits, job satisfaction, status, opportunities for advancement, job security and prestige. Inputs refer to the contributions made, such as the amount of time worked, the amount of effort expended, the number of units produced, education, work experience and anything else that employees perceive that they contribute to the organisation. Equity theory is concerned with outcomes and inputs as they are perceived by those involved, and are not necessarily based on any objective standards.

Theory	References and Year	Core elements
Goal Setting	Latham and Locke (1979)	Involves establishing specific, measurable, attainable, realistic and time-targeted objectives
Expectancy	Vroom (1964)	Emphasizes the needs for organizations to relate rewards directly to performance and to ensure that the rewards provided are those rewards deserved and wanted by the recipients
Self-Efficacy	Bandura (1982)	Self-motivation will be directly linked to the self-belief of individuals that they will be able to accomplish certain tasks and achieve certain goals
Two-factor theory of Motivation	Herzberg (1959)	Intrinsic and extrinsic motivation that drives and gives positive satisfaction in the work place
Equity theory	Adam (1963)	People strive to maintain ratios of their own outcomes (rewards) to their own inputs (contributions) that are equal to the outcome/input ratios of others with whom they compare themselves
Procedural Justice Theory	Thibaut and Walker (1975)	A process theory about work motivation that focuses on workers' perception that fairness of the procedures used to make decisions about the distribution of outcomes
Reinforcement	Hull (1951)	Successes in achieving goals and rewards act as positive incentives and reinforce the successful behaviour

Table 2.2: Dynamics of performance theories (source: author's work)



Equity theory states that people compare their outcomes and inputs to those of others and judge the equitableness of these relationships in the form of a ratio. Specifically, they compare the ratios of their own outcomes/inputs to the ratios of others' outcomes/inputs. The "others" who serve as the basis of comparison may be other employees in a work group, other employees in the organisation or individuals working in the same field.

### **2.3.2.2 Expectancy theory (Vroom, 1964)**

Expectancy theory, proposed by Vroom in 1964, is also known as the valence, instrumentality and expectancy (VIE) theory. Vroom realised that an employee's performance is based on individual level factors, such as personality, skills, knowledge, experiences and abilities. The theory suggests that, although individuals may have different sets of goals, they can be motivated if they believe that there is a positive correlation between effort and performance, and that favourable performance will result in a desirable reward. The reward will eventually satisfy the need and the desire to satisfy the need is strong enough to make the effort worthwhile. The theory is based upon three aspects, valence, instrumentality and expectancy. 'Valence' refers to the emotional orientations people hold with respect to outcomes (rewards). It also means the depth of the needs of an employee for extrinsic reward (such as money, promotion, time-off, benefits, etc) or intrinsic (such as work satisfaction) reward. Management must discover what employees' values are.

On the other hand, 'expectancy' suggests that employees have different expectations and levels of confidence about what they are capable of doing and management must discover what resources, training or supervision employees need. Whereas, 'instrumentality' means the perception of employees as to whether they will actually get what they desire, even if it has been promised by a manager. Management must ensure that promises of rewards are fulfilled and that employees are aware of that. Vroom suggested that an employee's beliefs about expectancy, instrumentality, and valence interact psychologically to create a motivational force such that the employee acts in ways that bring

pleasure and avoid pain. Expectancy theory is generally supported by empirical evidence (Tien, 2000; Vansteenkiste, *et al.*, 2005) and is one of the most commonly used theories of motivation in the workplace (Mitchell and Biglan, 1971; Heneman and Schwab, 1972; Campbell and Pritchard, 1976).

### **2.3.2.3 Procedural Justice Theory (Thibaut and Walker, 1975)**

Procedural justice theory is concerned with the perceived fairness of the procedures used to make decisions about the distribution of outcomes (George and Jones, 1999). Procedural decisions pertain to how performance levels are evaluated, how grievances or disputes are handled, and how outcomes are distributed across workers. In procedural justice theory, as in equity theory, workers' perceptions are key; workers' reactions to procedures depend on how they perceive the procedures rather than on what the procedures actually are (Ibid).

Procedural justice theory holds that workers are going to be more motivated to perform at a high level when they perceive the procedures used to make decisions about the distribution of outcomes are fair. Workers will be more motivated, for instance, if they think that their performance will be accurately assessed. Conversely, if workers think that their performance will not be accurately assessed, because the supervisor is not aware of their contributions to the organisation or because the supervisor lets personal feelings affect performance appraisals, they will not be as strongly motivated to perform at a high level. Procedural justice theory seeks to explain what causes workers to perceive procedures as fair or unfair and the consequences of these perceptions.

### **2.3.2.4 Goal-setting theory (Latham and Locke, 1979)**

Goal-setting theory, as developed by Latham and Locke (1979), highlights four mechanisms that connect goals to performance outcomes, as follows: i) direct attention to priorities; ii) stimulate effort; iii) challenge people to bring their knowledge and skills to bear to increase their chances of success; and, iv) the more challenging the goal, the more people will draw

on their full repertoire of skills. This theory underpins the emphasis in performance management on setting and agreeing objectives against which performance can be measured and managed. Goal theory supports the agreement of objectives, feedback and the review aspects of performance management. Goal-setting theory asserts that people with specific and challenging goals perform better than those with vague goals, such as 'do your best', specific easy goals or no goals at all. Thus, goal-setting theory assumes that there is a direct relation between the definition of specific and measurable goals and performance: if managers know what they are aiming for, they are motivated to exert more effort, which increases performance (Locke and Latham, 2002). Challenging goals are usually implemented in terms of specific levels of output to be attained (Locke and Latham, 1990).

It may be argued that goal-setting theory is associated with individual task performance rather than organisational performance (Verbeeten, 2008). However, the effects of goal-setting have been shown to be applicable to individuals as well as to organisational units (Rodgers and Hunter, 1991; Maiga and Jacobs, 2005) and entire organisations (Locke and Latham, 2002). Review articles (Rodgers and Hunter, 1991; Locke and Latham, 2002) suggest a positive relationship between clear and measurable goals and performance. Mitchell and Daniels (2003) reported that more than a thousand studies had been conducted on the effects of goal-setting. It is not surprising, therefore, that Rynes (2007) reported that the positive effects of goal-setting was among the top five established findings in human resource management literature. More than 90% of the empirical studies have shown the positive effects of goal-setting on an employee's or a team's performance (Locke and Latham, 1990). A number of researchers have also experimented with the effects of goal-setting on performance outcomes. One meta-analysis discovered goal-setting increased performance with an average effect size of 0.75 standard deviations (Guzzo, *et al.*, 1985). The reason why goal-setting has a positive effect on performance is that a specific high goal affects choice, effort and persistence. In other words, a specific goal or target increases a person's focus on what is to be accomplished as opposed to putting it off until a later date. Commitment to a specific high goal also leads to persistence until the goal is achieved (Latham, *et al.*, 2008).

The four main theories of equity, expectancy, procedural justice and goal-setting underpin the concept of the performance management system. These four theories are very much related to the *motivational* aspects of individual employees, which in turn relate to perceived increase in employee performance appraisal satisfaction and, ultimately, its effectiveness. Mitchell (1997, p.60) described motivation as psychological processes involving "arousal, direction, intensity, and persistence of voluntary actions that are goal directed". Arousal is essentially the motivational process of being interested in a given goal, for example, in the context of this study, an employee being interested in earning good ratings in appraisal, while direction is the process of actually selecting a goal and choosing to pursue it (in this case, the employee setting a goal to earn an 'excellent' grade in his/her appraisal in a given year). Intensity relates to the amount of effort that one expends in pursuit of the goal (i.e. how much the employee chooses to work) and persistence refers to one's continued pursuit of the goal, even in the face of challenges (for example, continuing to strive for 'excellent' grade even after being sick and missing work). Motivation, therefore, relates to what a person chooses to pursue (arousal and direction) and how he/she pursues it (intensity and persistence). Figure 2.3 summarises the possible questions addressed by an individual employee for each of the four approaches. Each approach has different implications for what managers should do to achieve a high level of motivation in their subordinates. Maintaining workforce motivation is central to an organisation's success, as it determines whether individuals will contribute the inputs the organisation needs to be effective.

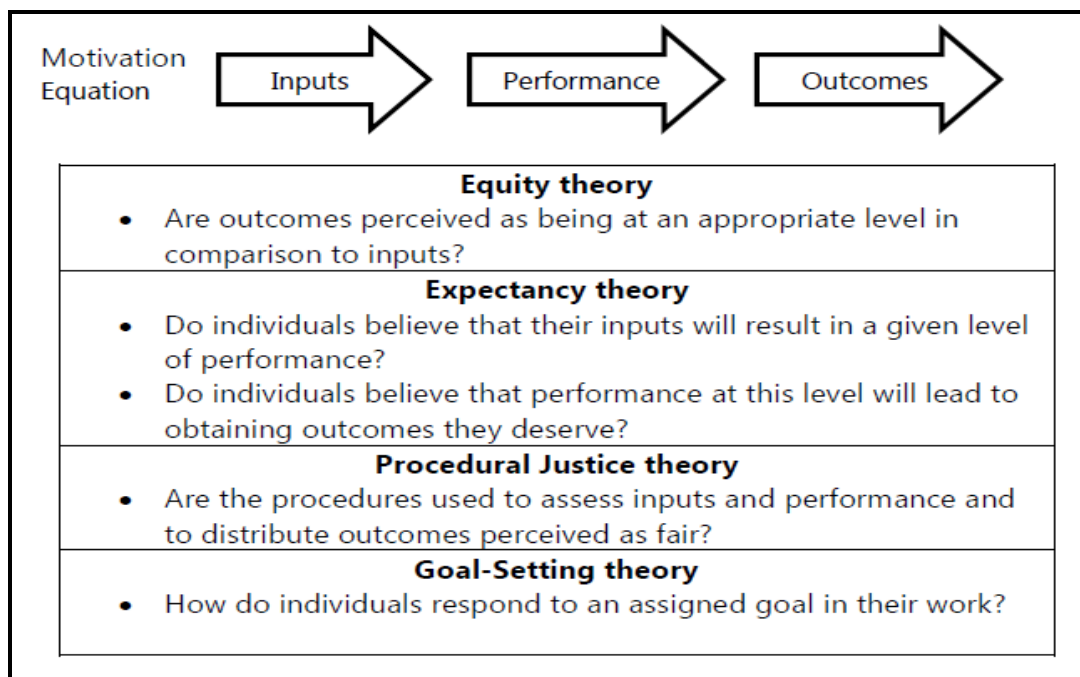


Figure 2.3: Questions Addressed by Four Theories of Research (developed by researcher)

The four questions addressed in Figure 2.3 indicate that these issues are related to the motivational aspect of performance. The key challenge facing managers in terms of motivation is how to encourage workers to contribute inputs to their jobs and to the organisation. Managers want workers to be motivated to contribute inputs, because inputs influence job performance and, ultimately, organisational performance. As shown previously in Figure 2.1, the end product is an outcome, which is either extrinsic outcome, such as pay and security, or intrinsic outcome, such as a feeling of accomplishment from doing a good job. The four theories described in this chapter are *complementary* perspectives and do not compete with each other, as each addresses different questions about motivation in organisations.

### **2.3.3 Performance Appraisal Satisfaction**

Researchers have emphasised that appraisal reactions play a crucial role in the development of favourable job and organisational attitudes and enhance motivation to increase performance (Taylor, *et al.*, 1984; Lawler, 1994). Of all the appraisal reactions, the satisfaction of performance appraisal system has been the most frequently studied (Keeping and Levy, 2000; Decramer *et al.*, 2013). Even though performance appraisal has many beneficial uses to the organisation, there seems to be a negative attitude and considerable dissatisfaction with the appraisal systems from both employees and managers (Latham and Wexley, 1981; Fletcher, 1993; Khoury and Analoui, 2004). Some of the most common problems cited for failure of an appraisal system include lack of employee participation and involvement in the process, especially in establishing their job targets, which may turn out to be unclear and non-existent. It could also be as a result of having weak communications and a lack of coaching relationships between superiors and subordinates (Lucas, 1994, Valerie, 1996). Thus, many performance appraisal systems fail as a result of the lack of managing the system effectively or the lack of top management support (Khoury and Analoui, 2004).

In the context of both private and public organisations in the United States, surveys through the years have indicated a relative lack of satisfaction with the effectiveness of the performance appraisal system. Bricker (1992) indicated that only 20% of American companies were very satisfied with their performance review process. A Wyatt Company survey of 900 companies found that only 10% of companies indicated satisfaction with their employee evaluation programs (Small Business Report, 1993). Additionally, a nationwide human resource survey carried out by the Society of Human Resource

Management in 1997 found that only 5% of the respondents were very satisfied with their organisation's performance evaluation system and that 42% were dissatisfied to some extent (Barrier, 1998).

So, why does satisfaction with the performance appraisal matter? It is because of a critical link that exists between satisfaction with the appraisal process and appraisal effectiveness (Bernadin and Beatty, 1984; Dobbins, *et al.*, 1990). Since appraisals are designed to help organisations retain, motivate and develop their employees (Mount, 1983), there can be little hope that these outcomes will occur if individuals are dissatisfied with the process. If appraisees are not satisfied or perceive a system as being unfair, they will be less likely to use performance evaluations as feedback to improve their performance (Ilgen, *et al.*, 1979). With regards to satisfaction with performance ratings, higher ratings usually elicit positive reactions to the appraisal (Kacmar, *et al.*, 1996) and are related to satisfaction with the appraisal process (Jordan and Jordan, 1993). The level of performance ratings is an important characteristic of the feedback message (Kluger and DeNisi, 1996) and, since it is often the basis for many important administrative decisions (Murphy and Cleveland, 1995), appraisee are more likely to be satisfied with higher ratings than lower ones.

In a performance appraisal process, employee attitude to the system is strongly linked to satisfaction with the system. According to Boswell and Boudreau (2000), perceptions of fairness of the system are an important aspect that contributes to its effectiveness. Understanding employee attitudes about the performance appraisal system in organisations is important, as they can determine its effectiveness (McDowell and Fletcher, 2004). If the performance appraisal is seen and believed to be biased, irrelevant and political, that may be a source of dissatisfaction with the system. Thus, employee reaction to the appraisal system is a critical aspect of the acceptance and effectiveness of the system. Huge dissatisfaction and perceptions of unfairness and inequality in the ratings may lead to the failure of the system (Cardy and Dobbins, 1994).

Moreover, dissatisfaction with appraisal procedures could potentially lead to employee turnover, decreased motivation and feelings of inequity. Certainly, it would be difficult to link performance with rewards if the appraisee experienced inadequate satisfaction with the appraisal process. Indeed, Lawler (1967) went on to suggest that employee opinions

of an appraisal system may ultimately be as important as its psychometric validity and reliability. Research has also demonstrated that satisfaction with the appraisal process has an impact on factors such as productivity, motivation and organisational commitment (Cawley, *et al.*, 1998). An appraisal process may be designed to motivate employees and inspire their continuous efforts toward goals, but, unless its participants are satisfied with and support it, the system will ultimately be unsuccessful (Mohrman and Lawler, 1981).

There is much to learn about multi-rater appraisal, particularly in the context of assumptions regarding employee satisfaction with the multi-rater concept. Moreover, little is known as to the effect of individual characteristics on the acceptance of various types of performance appraisal processes. The psychological nature of multi-rater interactions (Cawley, 1998) suggests that examining these differences can be useful. A meta-analysis study results indicated a strong relationship between performance appraisal participation and subordinates' affective reactions (Cawley, *et al.*, 1998), confirming that greater inclusion leads to increased satisfaction with the performance appraisal processes.

## **2.4 PERFORMANCE MEASUREMENT AND MANAGEMENT PRACTICES IN THE PUBLIC SECTOR**

As the focus of this research is on the public sector domain, this section relates to the performance measurement and management practices in the public sector. Over the past few years, performance measurement systems in public sector organisations have gained a lot of interest among researchers. These studies include the design (Wisniewski and Olafsson, 2004), implementation (Collier, 2006) and use (Ho and Chan, 2002). At the same time, performance measurement studies cover diverse public organisations, such as federal governments (Petrovsky and Ritz, 2014), health care organisations (Modell, 2001; Fan *et al.*, 2014), municipal governments (Ho and Chan, 2002), universities (Analoui, 2002; Modell, 2003; Decramer *et al.*, 2013) and the police (Collier, 2006). Many of these studies show that balanced performance measurement is also applicable in public organisations (Ho and Chan, 2002; Wisniewski and Olafsson, 2004). Performance appraisal systems are essential in the public sector context as they can be used to measure the extent to which human resources or employees are delivering the required or expected service. Performance management systems are, therefore, not only at the tail end of promoting good governance, but also are at the direct interface with

those who receive the service (Agere and Jorm, 2000). It is, therefore, incumbent upon the respective country to formulate the appropriate performance management system, which includes needs analysis, implementation and evaluation and, more importantly, to design the relevant performance appraisal instruments. In this regard, the instruments should be transparent and objective, indicating the degree of accountability (Ibid).

However there are two central issues in the longstanding debate on the best way to measure performance in the public sector (Kelly and Swindell, 2002). First, performance is a multi-dimensional construct that covers dimensions such as quality, effectiveness, responsiveness, equity and efficiency (Carter, *et al.*, 1992; Boyne, 2002). These dimensions are increasingly accepted in the public management literature. Second, perspectives on what constitutes high levels of organisational performance are likely to vary according to the stakeholders group (Walker and Boyne, 2006). These key stakeholder groups include both external and internal stakeholders. According to Dixit (2002), the main distinguishing feature of the public sector is the presence of multiple principles and stakeholders which influences the optimal performance measurement and incentive structure. Moreover, as a service provider, the public sector will be faced with difficulties of quantifying its main performance measures, such as customer satisfaction and the quality of service, as well as human resources being calculative receptors that have discretion over their effort and, hence, need consistent monitoring and directing towards the organisation's goals (Neely, *et al.*, 2007).

Another key challenge from the point of view of measurement, is the definition of what the public organisation actually produces; in other words, the question of output *versus* outcome, or efficiency *versus* effectiveness. By adopting the balanced scorecard approach, Chan (2004) discovered that measuring the outcomes is more difficult than measuring the output. Consequently, the studies by Chan (2004) and Pollanen (2005) revealed that municipal governments in Canada used more output (efficiency) than outcome (effectiveness) measures. Moreover, Guthrie and English (1997, p.155) argued that "*the mechanism for the distribution of goods and services in the public sector does not follow the market model appearing in the private sector*". In addition, the existing conflicting stakeholder needs and the problem of measuring outcomes added to the fundamental problems in public sector performance measurement. Along the same lines, the question of the nature of goals in public organisations has long been debated (Rainey, 2003). A central theme of this debate is about the clarity of goals in public organisations, and the consequences that arise from opaque goals. Chun and Rainey (2005) built on important work that had explored the determinants and performance impacts of goal ambiguity by using the case of thirty-two US federal agencies and found



support for the value of clear goals and objectives for public organisations. In particular, Chun and Rainey (cited in Boyne, *et al.*, 2005) argued that clear goals can reduce procedural regulations, support more decentralisation and increase levels of reward expectancy and job satisfaction. Pandey and Moynihan (2006, p.146) examined bureaucratic red tape and organisational performance and concluded that "*red tape does have negative impact on organisational performance*". However, their results showed that, if levels of development culture and political support are high, then an increase in red tape is associated with improved performance, suggesting that organisations adapt in different ways to similar constraints.

So, what is performance management for, especially in relation to the management of individual performance in the public sector? In broad terms, the overall purpose is to contribute to the achievement of organisational performance. However, performance management systems usually have many elements to them, so what is the benefit for the individual employee? According to Campbell, *et al.* (1993), employee performance in general refers to behaviours that are relevant to organisational goals and that are under the control of individual employees. As organisations are groups of humans working together to achieve specific goals and objectives, their performance is the total summation of the individual employees in that organisation. To have a clear picture of performance management and measurement in the 'real' world, the author conducted a literature search on surveys about performance management and found a 2004 London-based CIPD (Chartered Institute of Personnel and Development, UK) research survey (cited in Armstrong and Baron, 2005) to be a useful outcome. Although this survey was not solely focused on the public sector alone, but rather a combination of the public and private sectors, it revealed important aspects and determinants of performance management. The CIPD survey covered 506 respondents (about 31% from public sector; 40% from private sector service; 24% from private sector manufacturing). The key data emerging from the survey were as follows: 87% operated a formal performance management process; 62% used objective-setting; 31% used competence assessment; 59% gave an overall rating for performance; 79% linked individual and organisational objectives; 31% had performance-related pay; 75% agreed that performance management motivates individuals; 95% believed performance management would only succeed if it integrated the goals of individuals with those of organisation; 96% believed performance management should be about motivating individuals; 94% believed performance management is an essential tool in management of organisational culture; and 84% believed that quantifiable measures of performance are essential to successful performance management. Regarding the criteria used to measure individual performance, respondents rated 'achievement of objectives' (94%), 'competence'

(93%), 'productivity' (83%) and 'aligning personal objectives with organisational goals' (77%) as either 'very important' or 'important' measurement criteria. So, what do the findings of this survey suggest? The findings suggest the importance of having objective and quantifiable measures of employee performance and the need for the performance measurement to be tied in with rewards and competency measures. At the same time, it is important for performance management to be used as a tool in managing and integrating organisational culture within the organisations.

Although performance can be conceptualised and measured at broader levels (i.e. group, organisation and industry), this research study will focus, however, on individual level performance, particularly on satisfaction with the appraisal system. In line with Campbell, *et al.* (1993), individual job performance refers to behaviours enacted by an employee that are aimed at meeting organisational goals. The concept of individual job performance is also distinct from group and organisational performance, although studies have shown that particular types of individual performance can contribute to the performance outcomes of units of analysis beyond the individual, including work groups (Podsakoff, *et al.*, 1997) and organisations (Ostroff, 1992). Brewer (2005) went on to suggest that individual performance was a strong and significant predictor of federal agency performance in the United States. Similarly, Petrovsky and Ritz (2014) conducted a study on public service motivation for the performance of public organizations in Swiss federal government and found out that public service motivation is positively correlated with performance in both the individual-level analysis and the aggregated data analysis. However, assuming that the organisation has been able to identify which dimensions of performance it will choose to include in a performance management system, it faces another set of issues concerning what types of dimensions and how those dimensions will be measured. Fowler (1990) has suggested that performance dimensions are sometimes chosen, not because they are most valued by the organisation, but because they are the most easily measured. This is also reflected in the previous CIPD result survey that suggested that it was important to have an objective and quantifiable measure of individual performance. However, in order to examine the holistic picture of performance management, it is important to understand some of the underpinning theories of performance management.

## **2.5 PERFORMANCE APPRAISAL PROCESS**

### **2.5.1 Nature of Performance Appraisal**

Performance appraisal has traditionally been viewed by industrial and organisational psychologists as a measurement problem (Murphy and Cleveland, 1995). Indeed, a quick review of its historical roots shows that early research on performance appraisal focused on such issues as scale development, scale formats, reducing test and appraiser bias, and the like (Landy and Farr, 1980; 1983). It is interesting to note that performance appraisal is often considered one of the most important human resource practices (Judge and Ferris, 1993; Boswell and Boudreau, 2002; Kehoe and Wright, 2013) and is one of the more heavily researched topics in work psychology (Fletcher, 2002). Performance appraisal has increasingly become part of a more strategic approach to integrating human resource activities and business policies and is now a generic term covering a variety of activities through which organisations seek to assess employees and develop their competence, enhance performance and distribute rewards (Fletcher and Perry, 2001).

While more organisations are recognising the value of performance appraisal to organisations and employees, there is much confusion about what appraisals are and how they should be conducted and managed (Khoury and Analoui, 2004). Performance appraisals are said to lose much of their value if they are not done effectively (Bird, 1998; Analoui, 2002). Performance appraisal refers to the process by which an observer, often a supervisor or a peer, rates the job performance of an employee (Murphy and Cleveland, 1995). Kondrasuk (2012) suggested that the ideal performance appraisal is a format (process), not a form (specific instrument). It is a process that involves setting expectations (of the supervisor and subordinate), having the subordinate perform to achieve the expectations of appraising and feeding back the results, and applying the results of the assessment in ways that benefit the organisation, the supervisor, and the subordinate involved. In most organisations, these appraisals are conducted periodically, usually annually, and are normally recorded on some standard rating scale. The products of this appraisal process, which are sets of ratings, can play an important role in enhancing organisational effectiveness and have been used in a variety of contexts (Landy and Farr, 1980). However, to gain an understanding of where performance appraisal is today, it is helpful to briefly look at how performance appraisal has evolved. Its origins can be traced back as far as the First World War, but to appreciate contemporary perspectives it is not necessary to go back beyond the 1950s and 1960s. In the 1950s, personality-based appraisal systems were quite common. These were

associated with a belief in the importance of feedback as an aid to learning and as a motivating mechanism. McGregor (1957) then expressed criticism of personality-based ratings and identified them as a principal reason for the tendency of managers to avoid doing appraisals. This line of thought was taken up by other writers in the field and, with the additional influence of the concept of Management By Objectives (MBO), appraisal practice in the 1960s shifted to a greater emphasis on goal-setting and the assessment of performance-related abilities (and, much more recently, competencies) rather than personality. The late 1980s and the whole of the 1990s saw organisations undergo a process of rapid and successive change. The nature of these changes – downsizing and de-layering – had implications for the way that performance appraisal was applied (Fletcher, 1997). In the 1990s, many companies introduced performance management systems in an attempt to improve performance and manage human resources in a more integrated and consistent manner (Williams, 1998).

### **2.5.2 Performance Evaluations Measures**

Governments around the globe seek to judge the performance of their public services. This has given rise to the introduction of a range of complex and sophisticated regimes to provide information to politicians, managers and the public on organisational success or failures. Examples of these include an index of measures of performance of Chinese cities (China Daily, 2004); the Comprehensive Performance Assessment in English local government (Audit Commission, 2002); the Government Performance Result Acts 1992 in the US; the Service Improvement Initiative in Canada; the Putting People First schemes in Australia; Management by Results in Sweden; and the Regulation of Performance Management and Policy Evaluation in the Netherlands (Pollitt and Bouckaert, 2004). Despite such progress, a persistent problem for public management researchers and practitioners has been the conceptualisation and measurement of performance, more so in the context of individual level performances.

There are many ways to evaluate performance. In general, performance data can be categorised into two groups: subjective or judgemental measures and objective or non-judgemental measures (Landy and Farr, 1983). Although subjective or judgemental measures are more widely used (Murphy and Cleveland, 1995), objective performance indices (e.g. production output and time to complete a task) have been useful measures of performance for routine, manual jobs since the 1940s (Rothe, 1951) and have received renewed attention over the last 30 years (Lawler, 1986, 1995). Both objective and subjective measures of performance have also been used in studies of the

determinants of performance in public sector organisations (Brewer, 2004; Pandey and Moynihan, 2006).

### **2.5.2.1. Objective and Subjective Measures**

Objective measures are typically regarded as "*the optimum indicators of public sector performance because they are believed to reflect the 'real' world accurately and minimize discretion*" (Meier and Brudney, 2002, p.19). An objective measure should therefore be impartial, independent and detached from the unit of analysis. According to OECD (1993), objective-based appraisal has been used in many central government and public sector organisations across Australia, Canada, the United States, the United Kingdom, Ireland and New Zealand. An objective-based appraisal means that it is easy to link organisational or employee performance with performance-related pay. Objectivity is a concept based on the assumption that the structure of reality provides a basis for making correct judgments, independent of the background characteristics of individual perceivers (Bellotti, 1992). Given that individual job performance is a multifaceted and complex construct that may not be accurately captured with subjective assessments or aggregation of performance, it is important to rely on multiple objective indicators of performance for the following two reasons.

First, compensation research highlights the effectiveness of objective performance measures in guiding employee behaviour, as role expectations are clearly defined (Lawler, 1986; Lawler, *et al.*, 1995). Hence, when individual objective measures of job performance exist, employees are more likely to understand pay and performance linkages (Mathieu and Zajac, 1990). Organisations can then use their compensation systems to drive individual behaviour in achieving overall organisational objectives. This would then facilitate the assessment of the commitment-performance relationship, as those who exhibit high levels of commitment to the organisation can easily identify and pursue organisationally-designated performance goals. Secondly, objective job performance measures limit both intentional and unintentional supervisory biases that occur in the performance evaluation processes. For example, both single and multiple subjective performance measures may be tainted with leniency error, halo error, similarity error and low differentiation (Lawler, 1986). Thus, by reducing the effects of the biases, organisations can increase the credibility of pay-for-performance linkages. Some authors (Dollinger and Golden, 1992; Powell, 1992) also found measures of

perceived organisational performance correlated positively to objective measures of organisational performance.

In as much as objectivity is held to be a characteristic of scientific status, subjectivity poses a threat to any scientific pursuit (Hebb, 1974) as its existence presents a fundamental problem for psychological science. Wertheimer (1959, p.56) argued that it is because "*subjectivity experience is fallible, imperfect, subject to illusion and unique that it is seen to threaten validity, objectivity and scientific status*". Breuer *et al* (2013) investigated possible distortions in subjective performance appraisals and found evidence for the hypothesis that subjective performance is biased when there is a closer proximity between supervisor and subordinates. However, when objective performance data are not available, subjective (judgemental) performance measures may be a reasonable alternative (Dollinger and Golden 1992; Delaney and Huselid 1996). Although there is always some doubt cast upon self-reported and perceptual measures of performance, there is evidence of a high correlation between perceptual and objective measures at the organisational level.

#### **2.5.2.2 Team-based Measures**

Empirical research on variables influencing team performance is vast (Tannenbaum, *et al.*, 1996; Anderson and West, 1998). Similarly, team-based measures as the level of analysis of performance evaluation have also been the focus of many studies (LePine, *et al.*, 2000). Based on surveys concerning the prevalence of teams in organisations, it appears that approximately 50% to 90% of the organisations in the United States rely on teams in some form to accomplish their goals (Lawler, *et al.*, 1995). In fact, some have estimated that every major U.S. company is using or considering the use of teams somewhere in their organisation and, in the next few years, up to half the U.S. work force will be working in some sort of team (Stewart, *et al.*, 1999).

In the 1960s and 1970s, several proposals for effective management structures (Likert, 1967) were based on the idea that management should structure organisations so that its basic units consisted of consensual, autonomous working groups. This was based on the idea that, if the group were cohesive, then positive working norms and working practices would evolve more or less automatically. In similar vein, West (1994) emphasised the importance of incorporating systematic mechanisms to evaluate the

team's work. These could be used for evaluating the contributions of individual team members, for monitoring the team's performance as a whole and for making sure that there is frequent communication and review of progress within the team. In other words, by adopting regular mechanisms for team review and appraisal, it is possible to give feedback both to individuals and to the team as a whole. It also helps to establish the sense of mutual interaction and common action, which is necessary if social identification with the team is to be maintained.

Deming (1986) and other authors (Joiner, 1994) have argued that individual appraisal is dysfunctional, because it interferes with teamwork, fosters mediocrity, focuses on short-term outcomes, and overemphasises individual differences in performance. Deming, in particular, criticised appraisal as overly subjective and incorrectly focused in such a way that it focused much on the product rather than the process. However, in the author's view, the importance of the critiques raised by Deming and other proponents of TQM depends substantially on the nature of the job, the organisation and the product. In some settings, such as the traditional factory or assembly line, there is probably little individual variability in performance, at least compared to the performance variability caused by the production system. Similarly, in the context of a public sector organisation, if the employees are working in the same unit or division doing the same routine process or output-oriented products, the performance of the unit or division as a team may be a better indication of employee performance than individual level performance.

However, appraisals of team rather than the individual team members are likely to raise questions of equity and fairness (Greenberg, 1986; Folger, *et al.*, 1992). No matter how strong the team orientation, some team members are likely to believe that they performed better than others, and appraisal systems that ignore potential differences in team member performance may be viewed as unfair by a substantial number of employees. A second challenge associated with team versus individual performance measurement is the role of such measures in the organisation's career system. If team-based evaluations are to be carried out, it is unlikely that the appraisal will be useful for career-oriented application, such as promotion, as organisations are unlikely to promote or transfer the entire team.

### 2.5.3 Rewards and Pay-for-Performance

A system of performance management will not succeed in bringing about high performance against objectives unless employees consciously act in ways seen as being most likely to achieve the objectives. Expectancy theory specifies the need to tie performance outcomes to rewards which are valued by employees. As pointed out earlier, expectancy theory identifies three instruments that employers should use in combination to increase an employee's motivation: (i) increasing the subjective expectations that greater effort will lead to higher levels of performance (expectancy-E), (ii) strengthening the perceived link between performance and rewards (instrumentality-I), and (iii) ensuring that employees value the rewards given for high performance (valence-V). As mentioned previously, these three factors are known as the VIE-factors. Therefore, expectancy theory has been the principal framework used to explain the motivational force in the specific case of performance-related pay. This is in accordance with Mabey and Salaman (1995, p. 190) who stated that "*expectancy theory hypothesises that it is the anticipated satisfaction of valued goals which causes individuals to address their behaviour in a way which is most likely to lead to their attaining them*".

The job characteristics that are considered to be of vital importance for achieving satisfaction among workers include extrinsic rewards and intrinsic rewards (Herzberg, *et al.*, 1959). Beer, *et al.* (1984) identified reward as either extrinsic reward (in the form of promotion, salary, fringe benefits, bonuses or stock options) or intrinsic reward (such as feelings of competence, achievement, responsibility, significance, influence, personal growth and meaningful contribution). A review of literature has linked extrinsic rewards, such as pay and promotional opportunities, to changes in job satisfaction (Iverson and Maguire, 2000). These rewards are said to entice potential employees into an organisation, and increase their retention rates. Individual performance-related pay has been defined as "*a method of payment where an individual employee receives increases in pay based wholly or partly on the regular and systematic assessment of job performance*" (ACAS, 1990, p.2). Various research findings on reward systems have also explored their implications on organisational performance (Prendergast, 1999; Lazear, 2000; Weibel, *et al.*, 2009) on the premise that rewards influence the behaviour of individuals, which in turn leads to organisational performance.

In the context of public sector organisations, performance pay schemes are part of a wider set of reforms to the structures and managerial processes of public sector



organisations that were implemented in many OECD countries during the 1980s. As mentioned previously, these reforms were known as 'new managerialism', which involved an emphasis on decentralised managerial and financial control and fostering what is described as a performance culture that places greater emphasis on accountability and value for money (OECD, 1993). The benefits of linking performance measurement to rewards include providing a powerful means of linking and communicating the organisation's strategy to all levels of employees, and motivating employees by clarifying goals and targets (Neely, *et al.*, 1995; Kaplan and Norton, 1996; Moon and Fitzgerald, 1996). The literature on performance appraisals has further examined the impact that appraisals, as a form of performance management, can have on performance. For instance, Cardy (1998) argued that appraisals are linked with future performance while Hanson and Borman (2006) demonstrated the connection of appraisals with motivation and performance improvement, showing that certain behaviours translate the core performance into organisational effectiveness. However, there remains a question to be answered. According to Brown and Moberg (1980), when rewards are distributed according to subjective evaluations of performances, several problems are encountered. Employees often complain that the reward system is not fair. Some become overly dependent on those who subjectively evaluate their performance. Some employees, as Staw (1977, p.63) put it, "*invest a great deal of energy trying to influence and ingratiate themselves to the evaluator*".

However, pay-for-performance might have some complications in the public sector. Rewards and incentive systems which are effective and efficient in one organisational context might be ineffective or even counterproductive when implemented in a different organisational context (Chenhall, 2003). Indeed, experiences with pay-for-performance schemes in the public sector are mixed. An OECD (2005, p.37) analysis stated that "*there is no conclusive empirical evidence that such an approach has effectively helped to improve motivation and performance within the public service*" (Cardona 2006). Similarly, Perry, *et al.* (2006) argued that reviews that included the public sector suggested that performance-related pay systems had generally been unsuccessful (Ingraham, 1993; Kellough and Lu, 1993) and that performance-based reward schemes plans seemed not to focus on improving customer outcomes in certain African government as in the case of Botswana (Kealesitse *et al.*, 2013). The opponents of pay-for-performance schemes argue that theories based on self-interest cannot provide sufficient grounds to analyse the motivation of employees, especially that of employees in the public sector (Moynihan and Pandey, 2007). Indeed, some research indicates that an overemphasis on extrinsic rewards (e.g. pay and praise) can be counterproductive, actually making workers less productive, particularly if their original motivations were

primarily intrinsic (Kohn, 1993). Although many object to merit pay in the public sector, primarily because it is difficult to implement effectively (e.g. because it is hard to measure performance accurately), others argue that merit pay works worse in the public sector because pay motivates public employees less (Kellough and Lu, 1993).

#### **2.5.4 Accuracy of Performance Ratings and the Relationship of Appraiser and Appraisee**

Performance ratings are typically used to differentiate employee performance to make decisions about the allocation of training and development activities, compensation, promotions and other organisational rewards, such as merit pay. Given its link to the allocation of scarce resources, the performance appraisal process and the accuracy of the resultant ratings has received extensive attention in management theory, research and practice (Pichler, *et al.*, 2008). Performance ratings continue to be the most often used criterion measure for personnel research applications (Murphy and Cleveland, 1991). Research on ratings also remains popular (Borman, 1991) and streams of research have included rating format studies (Bernadin, 1977), appraiser training initiatives (Smith, 1976) and cognitively oriented studies of the performance rating process (Murphy, *et al.*, 1982; Murphy and Cleveland, 1991; Cardy and Dobbins, 1994).

While, based on the psychometric model of performance appraisal, researchers have traditionally assumed that rating accuracy is a function of rating instrument format and appraiser cognitive processing abilities, attention has shifted in recent years to the affective and interpersonal variables that systematically explain variance in performance ratings. While mechanisms designed to increase rating accuracy based on the psychometric model have shown some improvement in rating accuracy, interpersonal factors have been found to be particularly important in predicting performance ratings (Pichler, *et al.*, 2008). But, how do appraiser-appraisee relationships affect the performance appraisal and performance ratings? In addition, do the personality factors of either appraiser or appraisee play a role in rating accuracy?

According to the model developed by De Nisi (2000), the purpose of performance appraisal is to accurately diagnose individual and group performance so as to be able to reward good performance and remedy poor performance so that organisational performance will be enhanced. If the characteristics of interpersonal relationships

between appraiser and appraisee systematically distort performance ratings, this would suggest that performance problems will be under-identified and, perhaps, exacerbated; conversely, good performance may go unrewarded. The traditional psychometric model of performance appraisal assumes that the ratings are free from the halo, horns and leniency effects (Saal, *et al.*, 1980), and that training appraisers to avoid these biases, or developing rating instruments which prevent these biases, will increase rating accuracy. This is because researchers have assumed that rating biases operate at a sub-conscious level (Arvey and Murphy, 1998). Murphy and Cleveland (1995) pointed out that researchers have argued that appraiser motivation, affected in part by interpersonal relations, consciously affects performance ratings. However, existing research is still somewhat ambivalent as to whether or not interpersonal affect or relationship quality act as biases in the appraisal process *per se* (Varma, *et al.*, 2005). Thus, practitioners must be aware of how appraiser-appraisee relationships affect performance ratings when designing performance appraisal systems and evaluating their effectiveness.

Performance appraisal is indeed a complex process and there is scope for variation, particularly when the supervisor is required to make subjective judgments of employees' performance (as compared with an objective performance appraisal where the measurement focuses on the quantifiable aspects of job performance). Subjective judgements have the potential to dilute the quality of the performance appraisal process as they may be influenced by bias or distortion as a result of emotion (Longenecker, *et al.*, 1987; Murphy and Cleveland, 1995). Understanding the impact of performance appraisal quality is particularly important, as Treadway, *et al.* (2007) suggested that performance appraisals are becoming increasingly subjective.

### **2.5.5 Rating Scale Formats**

A wide range of rating scale formats has been used in performance appraisal, and there is substantial literature dealing with the psychometric characteristics of rating scales (Latham, *et al.*, 1979; Bernardin and Beatty, 1984; Latham and Wexley, 1994). Rating scale formats include graphic ratings scale – GRS (Paterson, 1922); behaviourally anchored rating scales – BARS (Smith and Kendall, 1963); behavioural observation scales – BOS (Dunnette, *et al.*, 1968); behavioural expectation scales – BES (Zedeck and Baker, 1972); behavioural description inventory – BDI (Schwind, 1977) and distributional measurement model - DMM (Kane and Lawler, 1979). However, for the purpose of this study, the author will only focus on the three most common rating scales, GRS, BARS and BOS.

Since 1922, when Paterson introduced the graphic ratings scales (GRS), an extensive amount of research has been conducted on scale format, with the goal of improving the measurement quality and the 'numbers' that such a scale yields (cited in Landy and Farr, 1983). As many psychologists indicate (Landy and Farr, 1983), early graphic rating scales consisted of trait labels and unbroken lines with varying types and numbers of adjectives below. Appraisers were asked to rate each employee on each trait or statement by circling a number or box that represented how much of that characteristic was present. Research on the graphic scale attempted to determine the meanings of the response categories or anchors, the types of anchors (trait, behaviour, adjective, number, etc.) and the number of anchors that resulted in discernible ratings and which appraisers found acceptable (Murphy and Cleveland, 1995). One systematic attempt to enhance the graphic ratings scale was the result of work conducted by Smith and Kendall (1963) that led to the development of 'behaviourally anchored rating scales' (BARS). Smith and Kendall attempted to replace numerical or adjective anchors with behavioural examples of actual work behaviour. Using scaling procedures borrowed from psychophysics and attitude measurements, BARS were designed to have improved psychometric properties (Landy and Farr, 1983). On the other hand, behavioural observation scales (BOS) were developed as an attempt to improve BARS (Latham and Wexley, 1977). In BOS, appraisers evaluate the frequency of specific employee behaviours or critical incidents that have been observed. These three rating scale formats differ in terms of the extent to which they use specific behavioural information in evaluating performance (BOS and BARS contain more behavioural information than GRS) and in the way behavioural information is used (BOS ask appraisers to describe specific behaviours that have occurred, whereas BARS use behaviours as examples to illustrate rating dimensions and scales).

## **2.6 CULTURAL SETTINGS OF PERFORMANCE MANAGEMENT**

The impact of cultural settings on performance management practices has been debated for many years. One well-known and very extensive cross cultural study was carried out by Geert Hofstede in 1980, examining international differences in work-related values. According to Hofstede, there are four discrete dimensions of culture: 'power-distance' (the extent to which people accept the unequal distribution of power); 'uncertainty avoidance' (the extent to which people dislike ambiguity and uncertainty); 'individualism' (the extent to which people are oriented towards the well-being of themselves/families as opposed to an orientation towards a wider social grouping); and 'masculinity' (the

extent to which material forms of success are priced over values such as caring and nurturing).

Previous research has shown that organisational and individual level performance are multi-faceted (Carter, *et al.*, 1992; Boyne, 2003), multi-dimensional (Rao, 2004) or even 'culture-bound' (Aycan, 2005). Research examining the relationship between actual performance and subjective ratings of performance has been dominated by experimental studies that have generally found a significant relationship between actual performance and performance ratings (Bigoness, 1976; Borman, 1978; De Nisi and Stevens, 1981). However, Johnson, *et al.* (1995) argued that the national culture and institutional environment can influence or determine differences in values systems across societies. Similarly, people in organisations are found to differ in their attitudes and behaviour in the workplace (Lawler, *et al.*, 1995). As such, it is very likely that managers and employees view performance differently in different cultures, thus leading to both inter-cultural and intra-cultural differences and interpretations of performance. For instance, institutional and cultural factors were found to influence the adoption of human resource management practices (Bagchi, *et al.*, 2004); the preference of Chinese workers for performance-related reward systems (Bozionelos and Wang, 2007); the implementation of 360° feedback systems across Argentina, Australia, China, Spain and the UK (Brutus, *et al.*, 2006), as well as the perception of causes of successful employee performance across Canada, China, Finland and the UK (Chiang and Birtch, 2007). These differences can be attributed to both culture fit thesis as well as employees' reaction to their experience with the performance management system.

In the following review of the literature, the author looked into the adoption of performance management practices in selected Asian countries, so as to better understand the role of contextual factors, such as culture, that may impact on the performance management initiatives.

### **2.6.1 Performance Management in Asian settings**

The author reviewed relevant literature in areas of performance management in India, China, South Korea, Malaysia, Singapore and Vietnam. The reason for choosing these countries was because of their diverse cultures, which may have cultural implications for performance management.

### **2.6.1.1 Performance Management in India**

A review of the existing literature (Sharma, *et al.*, 2008) reveals that performance management systems practices in India range from 'no appraisal' to 'sophisticated multi-purpose, multi component web-based performance management systems'. According to Sharma, *et al.* (2008), some of the key factors influencing performance appraisal management in India are: (i) changes in the economic environment resulting from the integration of Indian economy into the global economy; (ii) cultural diversity; and (iii) the on-going technological revolution. Furthermore, Indian organisations are facing several challenges as they attempt to establish formal performance management systems. These includes among others, transparency in the appraisal process and establishing clear linkages between performance evaluation and rewards, as well as a multitude of outdated labour laws.

The impact of cultural factors on both macro (distal factors) and micro (proximal factors) of performance management systems is also increasingly evident in the Indian workplace (Budhwar, 2000). However, Indians are found to be very proud of their 'secular', multi-religious, multi-cultural and multi-lingual country (Budhwar, 2001). The multiplicity of languages adds to the complexity of the nation and its workplace. India is often categorised as a traditional and collectivist society (Hofstede, 1984) and it is not surprising that Trompenaars (1993) classified India as a 'family culture' marked by a person-oriented and hierarchical culture which tends to be power oriented. As such, performance management in India, particularly in local and national public and private sector firms, is deeply affected by the high context, power oriented, hierarchy-driven mindset of Indian managers (Sharma, *et al.*, 2008). Sparrow and Budhwar (1997) pointed out that the Indian style of leadership and management is paternalistic in nature, and often causes employees to look for detailed and continuous guidance in order to achieve defined goals. Thus, adherence to norms and managerial directives is emphasised and supervisor-subordinate relationships play a huge role in determining the ratings of individual employees (Ibid). In this regard, Varma, *et al.* (2005) reported that subjectivity in ratings had a significant impact on the ratings awarded to employees, such that raters tended to inflate ratings of poor performers whom they liked. In addition, performance management systems in India's public sector units are typically used for promotion purposes, and reward or outcomes are often not clearly linked to performance and productivity (Budhwar and Boyne, 2004). As such, the acceptance of the performance management system is extremely low, further confounded by the fact that. in the public sector units. It is typically operated under a 'closed-system'.

Mendonca and Kanungo (1994) suggested that, in order to facilitate high employee performance in developing countries like India, it was absolutely necessary to set specific and difficult, but attainable, goals for individuals that were appropriate to attaining the objectives of work unit. Pareek (1987) contended a shifting of focus from motivating individuals to motivating work roles to impact performance. Pareek subsequently recommended designing work roles by integrating role expectations of both the individual and the manager. According to Pareek, this integration, when achieved through a supportive organisational climate, resulted in role-efficacy. Absence of this integration, on the other hand, created severe role-stress and, in turn, adversely affected performance.

### **2.6.1.2 Performance Management in China**

Since the mid-1990s, performance management has become a top priority in the management of government and civil service organisations as part of China's broader initiative of reforming its civil service function (Cooke, 2003). In particular, the 'Provisional Regulations for State Civil Servants' was implemented in 1993, placing great emphasis on the recruitment, performance appraisal and assessment, promotion, reward and disciplinary procedures in order to improve the transparency and efficiency of the personnel administration. Generally, performance appraisal for ordinary workers in China was mainly about linking their productivity and level of responsibility with their wage and bonuses in order to motivate them to work towards the organisational goals. However, performance appraisals for professional and managerial staff, particularly those in government and civil service organisations, were often linked to annual bonuses and promotion (Ibid). The state also has a much more hands-on role in designing the performance indicators for government officials and civil servants. In 1998, China's Ministry of Personnel introduced a new performance appraisal scheme for evaluating civil servants (Chou, 2005). The scheme focussed on four main performance indicators as criteria for assessing civil servants' performance: 'de' (good moral morality), 'neng' (adequate competence), 'qing' (positive working attitude) and 'jie' (strong performance record). Good moral practice refers to virtue or moral integrity; adequate competence relates to one's educational background, physical condition and ability to lead and manage; positive working attitude covers diligence, attendance and sense of responsibility; and strong performance record refers mainly to work effectiveness, including quality and quantity. However, many organisations added another indicator, 'lian' (honesty / non-corrupted), as corrupted behaviour became relatively widespread amongst government officials and civil servants.

In principle, performance appraisal for all employees focuses on two aspects: behaviour measurement and outcome measurement. This includes the employee's moral and ideological behaviour, competence, skill level and ability to apply skills and knowledge to work, work attitude, work performance and achievement, personal attributes, physical health and so forth (Chou, 2005). However, procedure wise, the annual performance appraisal is more complicated. It normally involves the initial self-appraisal, followed by a peer appraisal discussion meeting, held collectively in the respective government department as an act of democracy. Finally, the department leader will sign the form and submit it to the personnel department for record keeping (Cooke, 2005). The influence of Chinese culture as a distal factor can also be seen in performance appraisal in China (Cooke, 2008). One of the most important influences is Confucianism. Confucianism instils a belief in hierarchy and order in society as well as harmonious interpersonal relations. It has been widely noted that Chinese culture respects seniority and hierarchy, values social harmony and adopts an egalitarian approach to distribution (Hofstede, 1997; Yu, 1998). Since performance appraisal in China is closely related to financial reward and promotions rather than training and development needs, these Chinese norms play a particular influential role throughout the appraisal stages. The Chinese cultural norm of modesty and self-discipline (Bailey, *et al.*, 1997) is also reflected in the appraisal system because self-evaluation and criticism often forms part of the appraisal process and content, particularly in government and civil service organisations. In addition, Chinese employers tend to attach considerable weight to their employees' work attitudes and the effort they have made in their work, often disregarding the outcome. This norm is typically applied in the selection for promotion and bonus allocation. In addition, Chinese culture also values collectivism and emphasises the importance of maintaining 'face' and harmonious relationships at the workplace (Hofstede, 1997).

One of the main problems facing the performance appraisal systems in China is that performance appraisal is seen simply as a formality and is sometimes not taken seriously. One common feature is that the appraisal outcome is rarely fed back to the appraisee in qualitative comments and is seldom used for training and development purposes (Easterby-Smith, *et al.*, 1995). This is partly because line managers are reluctant to provide negative feedback to subordinates in order to avoid causing resentment and resistance among the staff concerned, which may further impede motivation and performance. Avoiding criticism of bad behaviour reflects the Chinese culture of neutrality, which leads to the tolerance of poor performers, thus demotivating good performers (Cooke, 2008). There is also a broad band approach to performance



rating, similar to a forced distribution approach, with government guidelines of not more than 10% each at both at the top (rated as excellence) and bottom-end (rated as unacceptable) of the system.

### **2.6.1.3 Performance Management in South Korea**

Korean society is influenced by its Confucianist traditions and backgrounds. This has an impact on the national and corporate culture, management and business through values and norms such as hierarchical paternalism, kinship and collectivism (Rowley, 2002). Korean human resource management and, ultimately, its performance management system used to be characterised as paternalistic and collectivistic with a seniority-based on lifetime employment and tenure-based pay (Rowley and Bae, 2001), as well as attaching the importance of 'face saving'. Over the years, Korean companies began to shift their management orientation towards being more individualistic, contract-based and more meritocratic, emphasizing performance and competencies. A new pay-for-performance system known as '*yunbongje*' (or 'Annual Gross Pay System') was adopted as a way to change organisational culture, as well as managing human resources in the new era (Yang and Rowley, 2008). Key features of '*yunbongje*' include the notion that differences in individual contributions to organisational success are reflected in pay, that many complex components (such as base pay, various allowances and fixed bonuses) are merged and that performance as outcomes, rather than seniority or job tenure as inputs, is more emphasised in determining pay. Another critical aspect of '*yunbongje*' is that it strengthens both the flexibility of pay, by increasing the proportion of performance-linked variable pay, and competition among employees, by differentiating their pay; it also reduces labour cost pressure from increasing seniority. Consequently, the performance appraisal system has become an important underpinning element for the newly oriented human resource management systems. With the advent of '*yunbongje*', a forced distribution system has also been used by companies in Korea. The use of forced distribution schemes, which assume employee performances within a rater's span of control follow a certain kind of probability distribution, has tackled the problem of appraiser leniency (Ibid).

### **2.6.1.4 Performance Management in Malaysia**

Performance appraisal in Malaysia is based on the New Performance Appraisal System implemented in 1992. It is a tedious process that comprises of four steps, namely alignment to departmental planning and policy; preparation of performance appraisal

report; coordination of performance appraisal and salary movement and finally, determination of the type of salary movement (Ahmad and Ali, 2004). There is an element of competition and meritocracy practiced in the appraisal system, such that the top performers will be entitled to up to three-incremental pay rises. However, after years of implementation, the appraisal system has met with a great deal of criticism, particularly on the issue of fairness in the evaluation decision. Public sector unions and associations viewed that the appraisers did not seem to be knowledgeable and have enough skills (Abdul Hamid, 1996; Mohd Zin, 1998). The issue of subjectivity also arises when it comes to implementation and appraisers, as human beings, tend to be biased, not fair and not objective (Abdul Manap, 1996). The other issue is that the outcome-oriented performance appraisal is new to Malaysian employees. The implementation of the appraisal system has witnessed the beginning of a formal system involving both the appraiser and appraisee in new practices, such as continuous assessment of the employee's actual work, requiring high-personal commitment to set objectives. The Malaysian settings of performance appraisal practice confirm, at least in part, what Hofstede cautioned about the suitability of outcome-based appraisal in some contexts, especially in high power-distance cultures. Since it involves open discussions pertaining to a person's performance, such an exercise is likely to clash with the Malaysian way of harmonious norm and may be felt by the subordinate as an unacceptable loss of face (Hofstede, 1997).

#### **2.6.1.5 Performance Management in Singapore**

According to Hamden-Turner (2003), Singapore is one of the most successful Asian economies and perhaps the closest to western values. Influenced by UK-educated Lee Kuan Yew and the People's Action Party, Singapore went from Third World to First World status in less than 30 years in a process that Hampden-Turner (2003, p.171) described as 'facilitated development' rather than command economy. Choo (2007) argued Singapore's governance and development shares many Asian cultural characteristics, including a collective entrepreneurial spirit and "*a comforting focus on people, a high duty consciousness, professional obedience amongst employees*" as well as basic trust (cited in Chatterjee and Nankervis, p. 244). The country also emphasised education as its cultural and social base and advocated basic Confucian values (Lee and Haque, 2006).

In Singapore, performance measurement in government ministries and departments is linked with a new budgeting system known as 'Budgeting for Results' (Jones, 2001). 'Budgeting for Result' links budget allocation to performance, as measured by different types of indicators which provide the necessary rewards to spur greater performance. The indicator and targets cover the entire spectrum of performance, namely: (a) output volume; (b) output quality; (c) efficiency; and (d) outcomes or effectiveness. On the basis of these indicators, departments must set performance goals and targets for the forthcoming financial year, as the means of improving their performance (Jones, 2008). This means that employee performance is closely linked to the performance of the organisation as a whole. Additionally, goal-setting theory suggests that appraisal criteria and performance goals should be clear and understandable so as to motivate the appraisee, otherwise the appraiser will not know what to work towards (Locke and Latham, 2002). However, Huo and Von Glinow (1995) argued that the Chinese can tolerate subjectivity in performance appraisal more, which suggests that they may be more accepting of appraisal criteria that lack clarity. Given that Singapore is predominantly of Chinese race, government employees in Singapore may be more tolerant of appraisal criteria that are subjective and less clear (Kelly, *et al.*, 2007).

#### **2.6.1.6 Performance Management in Vietnam**

In Vietnam, performance appraisal carried out in the public sector, particularly in state-owned enterprises, is based on national guidelines that encompass a simple and easy to use performance appraisal. However, it does little to motivate employees as it only provides a little cash and honour certificates as rewards for excellent performance. In addition, performance assessment depends very much on the agreeableness of the subordinate-manager relationship (Kamoche, 2001); such subjectivity is apparently aimed at maintaining harmony in the organisation rather than stimulating internal competition for progress. More often, peer evaluation is used to rate employee performance in order to determine the level of bonuses the employee should receive at year-end. The intention of this system is to create peer pressure, which would encourage cooperative efforts among colleague workers, but it is unlikely to be realised in reality as peer evaluation does poorly in distinguishing between high and low performers. According to Quang and Thang (2005), this is due to the Vietnamese cultural values of saving face, which makes people reluctant to rate others unfavourably in front of others, as well as the fact that every Vietnamese considers a bonus as a chance to increase his or her income.

### **2.6.2 Reflections of the Performance Management Practices in the Asian Settings**

Differences in culture, technology or simply tradition make it difficult to directly apply techniques that have worked in one setting to a different setting (Hofstede, 1997). So, what can be learned from the performance management systems' experiences in the Asian setting, as summarised in Table 2.3? The performance management systems in India, China and Malaysia share certain characteristics, as all are in a collectivist culture. Similarly, performance management in Singapore and, to a lesser extent, Korea emphasised a more individualised culture that may be closer to western values. However, the differences in the levels of economic development (distal factor) result in few similarities between their performance management systems. While the Chinese performance management system is much less formal, the Korean performance management system has begun to recognise the importance of merit-based rather than seniority-based performance, but at the expense of culture. Similarly, country-specific performance appraisal systems have revealed the unique influence of the socio-cultural context, ranging from Confucian principles in China, Korea, Singapore and Vietnam to Islamic work principles and ethics and *Malay* culture in Malaysia, that affect each other's performance appraisal systems. Thus, in the Asia Pacific settings, there seems to be a hybrid system that is based on a mixture of both traditional Asian characteristics and a western rationalised system. Another key challenge of performance management practices in the Asia Pacific Region is the effect of the transition from collectivism to individualism in human resource management related practices in countries such as India, China, South Korea, Singapore and Vietnam. This transition equates the need for managers to develop a new culture where performance-related incentives, such as promotion, pay and other organisational benefits, would be based on individual contributions rather than group characteristics. In addition, research on human resource practices, such as performance management in Asia, often raised questions about the transference of western management models and the associated assumption about human behaviour in Asian business environments (Chew and Sharma, 2005; Chatterjee and Nankervis, 2007). Such authors suggest that an understanding of context and culture is vital to understanding behaviours. This includes not only history, politics and government, economic development and features of the workplace, such as age and skill levels, but also individual and collective mindsets and philosophies that can influence attitudes and guide behaviours (Hofstede, 2007). How to achieve an effective and successful change to individual-based human resource management practices, such as performance appraisal, within the broad East Asian culture of groupism is a critical challenge for all managers in this part of the region.

Country	Types of Performance Management	Core elements
India	Ranges from no appraisal to sophisticated multi-purpose, multi-component web-based performance management	<ul style="list-style-type: none"> <li>- Deeply affected by high context, power-oriented, hierarchy-driven;</li> <li>- Adherence to norms and emphasize supervisor-subordinate relationship;</li> <li>- Does not like subjective ratings;</li> <li>- Linked to promotion and reward</li> </ul>
China	Focuses on four main aspects of morality; competence/ability; diligence/work attitude and achievement	<ul style="list-style-type: none"> <li>- Linked to annual bonuses and reward, not so much on training and development;</li> <li>- Focuses on two aspects of behaviour and outcome measurement;</li> <li>- Values collectivism and emphasise the importance of maintaining 'face' and harmonious relationship</li> </ul>
South Korea	Yunbongje (Annual Gross Pay System)	<ul style="list-style-type: none"> <li>- Shifted to being more individualistic, contract-based and meritocratic;</li> <li>- Emphasise performance-linked variable pay;</li> <li>- Forced Distribution System is also used</li> </ul>
Malaysia	Tedious four steps process; outcome-based appraisal	<ul style="list-style-type: none"> <li>- Criticises for issue of fairness of evaluation;</li> <li>- Use subjective measures which tend to be bias, not fair and not objective;</li> <li>- Outcome-based appraisal not suitable in high power distance culture as it may clash with harmonious culture</li> </ul>
Singapore	Linked with a new budgeting system known as 'Budgeting for Results'	<ul style="list-style-type: none"> <li>- Comprise of four performance indicators (output volume, output quality, efficiency and effectiveness)</li> <li>- Closest to western values</li> </ul>
Vietnam	Simple and easy to use appraisal; uses peer evaluation	<ul style="list-style-type: none"> <li>- Performance assessment aimed at maintaining harmony;</li> <li>- Cultural values of saving face means people reluctant to rate unfavourably</li> </ul>

*Table 2.3: Summarised Issues of Performance Appraisal System in the selected Asia Pacific Region (source: author's work)*

## 2.7 CHAPTER SUMMARY

The field of performance measurement will continue to be the focus of attention from academics and practitioners in both private and public sector organisations as a way to manage and control organisations. Individual employee performance is a core concept within work and organisational psychology, and researchers have made progress in clarifying and extending the performance concept. The literature in the performance management domain reveals that individual employee performance and measures of performance is more complex than before and needs timely and more appropriate attention. Individual performance is also a multi-dimensional construct in achieving organisational effectiveness and, at the same time, culture-bound. The review of literature also reveals several directions for further research in the field of individual

performance in the public sector. However, as this chapter on Literature Review (Chapter 2) has a direct linkage with the Conceptual Framework (Chapter 4), the full discussion addressing the gap in the research will be fully presented at the beginning of Chapter 4. The following chapter is related to the study settings.

## CHAPTER THREE: SETTING AND CONTEXT OF THE STUDY

### 3.1 INTRODUCTION

This chapter focuses on the background and overview of Brunei, followed by an overview and structure of the Brunei Government System, the Civil Service and the national policy aspect of public management initiatives in Brunei. The performance appraisal system currently practiced in Brunei's public services, such as the use and purposes of a performance appraisal system, as well as the stages in an open appraisal system are then highlighted.

### 3.2 BRUNEI DARUSSALAM: GENERAL BACKGROUND

#### 3.2.1 Overview of Brunei Darussalam

Brunei occupies an area of 5,765 sq. km on the north-western coast of the island of Borneo, bordering the Malaysian state of Sarawak and the South China Sea. Brunei gained its independence from the British on 1 January, 1984 and has a population of about 414,000 people, with a population growth rate of 2.0% in 2010 (Brunei Darussalam Key Indicators, 2011). The country is divided into four administrative districts, namely Brunei-Muara, Belait, Tutong and Temburong. The capital city, Bandar Seri Begawan, which lies in the densely-populated Brunei-Muara District, is the centre of government administration and institutions. The second largest population centre is the Belait District, west of the capital, where the vast majority of oil and gas activity takes place.





Figure 3.1: Brunei Darussalam and neighbouring countries (source: [www.vidiani.com](http://www.vidiani.com) and [www.oocities.org](http://www.oocities.org))

Ethnically, Malays form approximately two thirds of the local population, followed by the Chinese (11%) and other nationalities (22%) largely made up of Indians and Filipinos working in the private sector (The Report: Brunei Darussalam, 2009). According to 2010's Population Statistics, Brunei has a young population, of which 57% are in the 20-54 working age-group with 34% below the age of 19 and only 9% of 55 years of age and above. The main language is Malay (Bahasa Melayu), although English is widely spoken and is the principal language of business. Around 6% of the country's overall population is comprised of indigenous people – represented by the Ibans, Murut and Dusun – who maintain their own distinct identities and languages. The majority of the population is of Islamic religion.

Bruneians enjoy a particularly comfortable standard of living. The country is well known for its abundant oil and gas reserves, which fund the nation's economic development. The country is the third largest oil producer in South-East Asia. The country's well-developed hydrocarbons reserves form the backbone of the economy, accounting for 70% of GDP and 78% of exports (DEPD Brunei Statistics, 2012). Careful management of these resources enables Bruneians to enjoy a standard of living that is among the highest in the world in terms of per capita GDP. As a result, according to the 2009-2010 World Economic Forum's Global Competitiveness Index, Brunei is ranked first in macroeconomic stability. With a Human Development Index (HDI) of 0.838, the IMF designated Brunei as a developed country. Abundant income from the oil and gas



industries has enabled the government to fund a comprehensive welfare system that provides free housing, education and medical care, while demanding no income tax.

*Table 3.1: Brunei Darussalam Key Indicators 2011 [Source : Department of Statistics, Department of Economic Planning and Development, Brunei]*

i. Population Profile from 2008-2010

Year	2008	2009	2010
<b>Total Population (thousand)</b>	398.0	406.2	414.4
Male	211.0	215.0	219.1
Female	187.0	191.2	195.3
Annual rate of increase	2.1	2.1	2.0
<b>Population by residential status (thousand)</b>			
Brunei Citizen	257.0	262.9	268.6
Permanent Residence	32.2	32.8	33.3
Temporary Residence	108.8	110.5	112.5
<b>Population by racial group (thousand)</b>			
Malay	265.1	269.4	273.6
Chinese	43.7	44.6	45.4
Others	89.2	92.2	95.4
<b>Population Median Age (years)</b>	26.4	26.6	26.8
0-4	35.2	34.7	35.4
5-19	105.3	106.4	106.5
20-54	227.1	232.5	237.0
55-64	17.2	18.8	20.3
65 and over	13.2	13.8	14.4

ii. Labour Profile

Working Age Population between Age 15-54	2008	2009	2010
<b>Labour force (thousand)</b>	188.8	194.8	198.8
Male	114.4	117.0	121.2
Female	74.4	77.8	77.6
Employed (thousand)	181.8	188.0	193.5
Male	111.2	114.0	118.8
Female	70.6	74.0	74.7
Unemployed (thousand)	7.0	6.8	5.3
Male	3.2	3.0	2.4
Female	3.8	3.8	2.9
Unemployment Rate	3.7	3.5	2.7

### iii. Quick Facts about Brunei

Facts about Brunei	References
<ul style="list-style-type: none"> <li>• Highest human development index in the Islamic world</li> </ul>	Human Development Report 2009
<ul style="list-style-type: none"> <li>• Highest macroeconomic stability in the world</li> </ul>	Global Competitiveness Report 2009-2010
<ul style="list-style-type: none"> <li>• 2nd highest per capita income in ASEAN</li> </ul>	Global Competitiveness Report 2009-2010
<ul style="list-style-type: none"> <li>• 2nd highest quality of life in ASEAN</li> </ul>	Human Development Report 2009
<ul style="list-style-type: none"> <li>• 3rd most favourable tax regime in Asia</li> </ul>	Global Competitiveness Report 2009-2010
<ul style="list-style-type: none"> <li>• 4th largest oil producer in ASEAN</li> </ul>	World Trade Organization, 2008
<ul style="list-style-type: none"> <li>• 9th largest LNG exporter in the world</li> </ul>	World Trade Organization, 2008
<ul style="list-style-type: none"> <li>• One of the lowest inflation rates in the world – 2.7%</li> </ul>	Global Competitiveness Report 2009-2010
<ul style="list-style-type: none"> <li>• One of the highest literacy rates in the world – 94.9%</li> </ul>	Human Development Report 2009
<ul style="list-style-type: none"> <li>• One of the best healthcare systems in Asia</li> </ul>	World Health Organization

However, there is a rising awareness in the country about depleting natural resources and the subsequent need to diversify the economy away from its over-reliance on oil and gas. Plans for the future include upgrading the labour force, reducing unemployment, strengthening the banking and tourist sectors and further widening the economic base beyond oil and gas.

### 3.2.2 National Philosophy

Brunei is a monarchy, with His Majesty the Sultan and Di-Pertuan of Brunei Darussalam, taking the role of head of state, head of government, head of state finances and head of the armed forces. The royal family also plays an important role in running the Sultanate, in both economic and political spheres. The country's Islamic roots shape the social fabric of modern Brunei life. Underpinning the stability of Brunei has been the philosophy known as 'Melayu Islam Beraja' (MIB), or Malay Muslim Monarchy, which was proclaimed as the Sultanate's guiding principle on the occasion of full independence from the United Kingdom in 1984. Brunei's independence proclamation on 1 January, 1984, as

proclaimed by His Majesty the Sultan, strengthened the importance of MIB for Brunei as follows:-

*"...Brunei Darussalam, by Allah's Will, shall forever remain an independent, sovereign and democratic Malay Muslim Monarchy in accordance with the Islamic teachings of Ahli Sunnah Wal-Jamaah and based on the principles of justice, truth and freedom and God's Guidance shall continuously strive to achieve peace and security, well-being and happiness for the people of Brunei Darussalam..."*

Thus, the concept of Malay Muslim Monarchy forms the foundation of the social and political structure and is practiced by His Majesty the Sultan and the Bruneian people. Malay culture in Brunei seamlessly integrates Islamic customs and traditions into daily life. MIB promotes Malay culture, language and customs, although the rights of other ethnic groups within the Sultanate are also enshrined. The monarchy, which enacted these policies, can be seen as the linchpin of the Sultanate's continued social harmony and consensus. For many centuries, Brunei has been run according to a system in which there has always been some level of reciprocity between the Sultan and his subjects. This can be clearly seen in the extensive benefits that ordinary Bruneians receive from the monarch, from subsidies covering many everyday items to low-cost health care and free education. Bruneians are highly fortunate in that Brunei has been able to maintain a sense of continuity with its past while at the same time embracing the present, ensuring a high standard of living for all its citizens and a sense of stability that is sometimes the envy of its neighbouring countries.

### **3.3 STRUCTURE OF THE GOVERNMENT SYSTEM**

Brunei's government system is structured along the lines of the UK's Westminster model and has a formal ministerial system with 12 ministries and about 120 departments. The ministries are: (i) Prime Ministers' Office; (ii) Ministry of Defence; (iii) Ministry of Finance; (iv) Ministry of Foreign Affairs and Trade; (v) Ministry of Education; (vi) Ministry of Health; (vii) Ministry of Communication; (viii) Ministry of Development; (ix) Ministry of Industry and Primary Resources; (x) Ministry of Home Affairs; (xi) Ministry of Religious Affairs; and (xii) Ministry of Culture, Youth and Sports. Each ministry is headed by a Minister who is usually assisted by a Deputy Minister. The minister and deputy ministers are, in turn, assisted by Permanent Secretaries who act as the Chief Executive Officer in each ministry.

Brunei is governed on the basis of a written constitution which came into effect in 1959. Under the Constitution, His Majesty the Sultan has executive authority and is assisted and advised by five constitutional bodies, namely the Religious Council, the Council of Cabinet Ministers, the Privy Council, the Council of Succession and the Legislative Council. His Majesty the Sultan of Brunei is the head of state and also acts as the Prime Minister, Minister of Defence and Minister of Finance (Constitution of Brunei Darussalam, 1984). The first of these groups, the Religious Council, derives its power from the fact that the Sultan is also the head of the faith in Brunei and the constitutional stipulation that Islam is the state religion. The Council of Ministers, or the cabinet, currently consists of 12 ministers, including the Prime Minister (headed by His Majesty the Sultan) and Senior Minister at the Prime Minister's Office (headed by His Royal Highness the Crown Prince). Meanwhile, the Privy Council advises on any amendments or other changes to the Constitution, while also advising the Sultan's use of mercy and awards. The Council of Succession, on the other hand, ensures that the rules of succession, as laid down in the Constitution, are followed through. Finally, the Legislative Council, which was re-established in 2004 after being dissolved in 1984, was established to examine any proposed legislation coming from the government. As of April 2012, it now has 33 members, all of whom are appointed by the Sultan.

The country has given high priority and importance to the excellence and effectiveness of the government, particularly the public services, and this is shown in the annual budget of B\$4.83 billion (US\$3.80 billion) allocated to ministries and departments in the fiscal year of 2014-2015 (Brunei Times, 2014). The breakdown of budget allocations according to the various ministries (2014-2015 estimates) is shown in [Appendix 2](#). In addition, the development budget, used for developing the country's infrastructure and development projects, has been set at a total of B\$1.15 billion (US\$0.90 billion). Empowering education and training, galvanising investment activity, enhancing national productivity and securing the well-being of the citizens and residents constitute the main focus areas in government expenditure for the Financial Year 2014/2015. In regards to these four focus areas, the active cooperation and diligent efforts of human resources in both the public service and the private sector support national aspirations of development and economic diversification. In the meantime, the government also needs to continue to practice high prudence in its spending, focussing its spending plans on advancing national priorities, namely generating economic growth and creating even more job opportunities for the native population (Ministry of Finance Brunei, 2014).

Of all the 12 ministries in the Brunei Government, the Prime Minister's Office is the highest ministerial level in the government hierarchy. The Prime Minister's Office is the central coordinating body for all government ministries and agencies in the formulation and implementation of national policies. The Prime Minister's Office is currently following a 10-year strategic plan aimed at enhancing the effectiveness of the government's decision-making processes, with a target date of 2014 (Prime Minister's Office Strategic Plan, 2009). The strategic plan follows seven themes: enhancing the quality of policy-making; setting the policy direction and framework for national economic development; modernising the civil service; enhancing the administration of justice and upholding the rule of law; promoting the image of effective and caring government; strengthening national crime-fighting capabilities; and strengthening the capabilities in place to manage national crises and non-traditional security concerns.

This strategy lies behind much of the current political thrust of the Bruneian government, given the fact that the Prime Minister's Office is both the lead agency of the Bruneian Government and the secretariat for the Sultan, the Cabinet and the permanent secretaries of the ministries. Its influence can be seen in almost everything, from national security (Police Force and Internal Security), governance (Public Services Department and Commissions, Management Services and Civil Service Institute), law enforcement (Attorney General Chambers and Justice, Narcotics and Anti-Corruption Bureaus) and economic development (Economic Development and Planning) to public broadcasting (Radio Television Brunei and Information Department), energy matters (Energy Department and Electrical Services) and even religious affairs matters (Chief Mufti), as well as the Audit Department and Council of State Department.

As the largest employer in Brunei, the civil service has been responsible for the political stability, peace and prosperity of the country. In the context of Brunei, a civil servant is any employee working for the Brunei Government, except those in the Armed Forces or the Police Force. Brunei's civil service employs about 46,769 civil servants (as of August 2010) and accounts for about 24.1% of Brunei's total working population, providing goods and services to the public. In the last decade or so, the civil service's role has changed slowly, moving away from the traditional role of providing goods and services to that of a facilitator for growth and development. This role has evolved quickly, because, in many countries, it has been proven that many of the services can be also delivered more efficiently by the private sector, as well as the changing role of public services through new public management initiatives.

Brunei's civil servants are structurally divided into five main divisions (Figure 3.2). Each division is further sub-divided into various salary scales, with Grade I being the highest in the hierarchy and Grade V the lowest. Grade I occupies the top tier in the ministries and departments and represents the top management workforce, such as Permanent Secretaries, Deputy Permanent Secretaries, Director-General, Directors or Deputy/Assistant Directors. Grade II consists of the middle level management workforce, such as officer-level or line manager and represents graduate level entry point into the civil service. Grade III represents the supervisory and lower management group, consisting of chief clerks, technical staff or supervisors. At the bottom level of the hierarchy are Grade IV and Grade V, which consist of the non-managerial or operational workforce, including posts such as clerks, office assistant, drivers, gardeners, cleaners and other menial jobs.

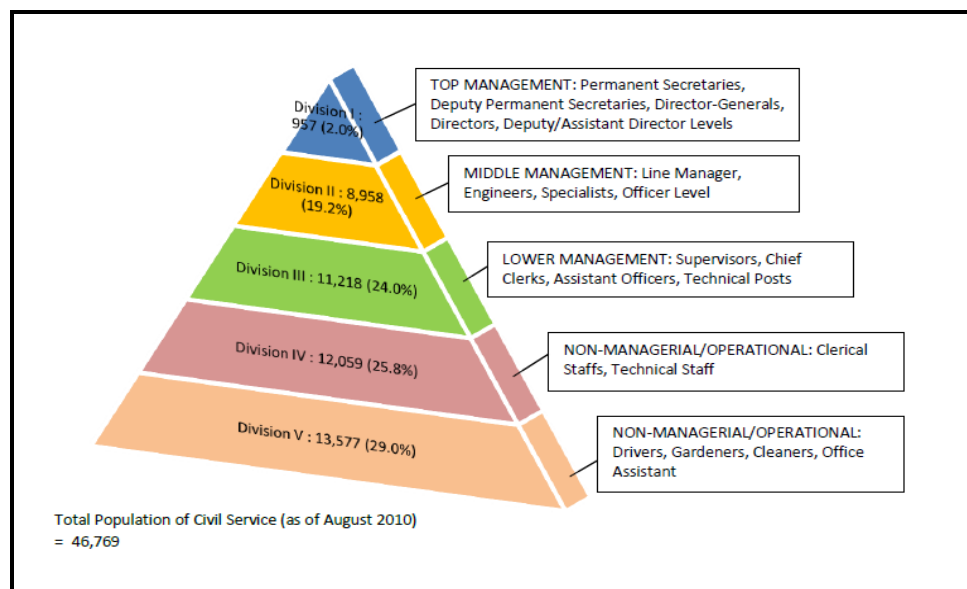


Figure 3.2: Distribution of Civil Servants in Brunei's Civil Service (source: Public Service Department, Brunei - August 2010)

### 3.3.1 Brunei's National Vision

Concern over the strength of Brunei's civil service is outlined in the new long-term development framework of Brunei that encompasses a national vision or what is known as 'Wawasan Brunei' (Brunei Vision) 2035. This national vision aims to establish Brunei, by 2035, as a nation widely recognised for the accomplishment of its educated and highly skilled people, as measured by the highest international standards, with a quality of life among the top 10 nations in the world and with a dynamic and sustainable economy having income - per capita within the world's top 10 countries.

To ensure the accomplishment of this high-profile goal, one of the core strategies (see [Appendix 3](#)) that have been identified with respect to the achievement of public service excellence is the 'institutional development strategy'. This strategy aims to enhance good governance in public and private sectors, high quality public services, modern and pragmatic legal and regulatory frameworks and efficient government procedures that entail a minimum of bureaucratic red tape. With people's rising expectations, education and knowledge and the emergence of a diverse variety of interest groups requires the civil service and government to be even more competent and efficient. Thus, the need for the government to provide a more transparent and accountable service is very much urged. All these factors forced the civil service to evaluate performance, increase service standards and ease work processes, systems and procedures to meet the ever-dynamic needs of clients and the public as a whole. To succeed, Brunei's civil service has to be ready to face the challenges and accept changes according to the times, be they small or great. The Government of His Majesty the Sultan of Brunei has always put great effort into fulfilling the public needs, in line with the country's policies and development objectives. Several efforts have been made and are being continuously carried out in order to upgrade the competency and effectiveness of public administration. At the heart of this institutional development is the government's need to evaluate the performance of all its civil servants.

The need for a comprehensive performance appraisal system was underlined by the Royal Highness the Crown Prince of Brunei, who is also Senior Minister at the Prime Minister's Office, at Civil Service Day in October 2011 (Prime Minister's Office, 2011) as follows:-

*"..In this regard, the Civil Service should be able to undertake two important measures that serve as a catalyst to its progression, namely the improvement of the performance appraisal system and the implementation of initiatives for reform that are effective.*

*The current performance appraisal system must be reviewed to provide focus upon appraising productivity as well as to curb any negligence towards basic discipline. A performance evaluation method which is more objective and its effective implementation will be able to help gauge the actual capability of the individual, in comparison to the achievement of the organisation, an approach*

*which prioritises outcomes or work productivity, basic discipline, and the individual's potential for better career progression..."*

Thus, at the highest level, there is already a need for Brunei's civil service to strengthen and look into its present performance appraisal system, which is seen to be less objective and provide less focus on appraising work productivity.

### **3.4 OVERVIEW OF CURRENT PERFORMANCE APPRAISAL SYSTEM IN THE PUBLIC SECTOR OF BRUNEI**

The performance appraisal system in Brunei is under the jurisdiction of Brunei's Public Service Department (PSD), a department under the Prime Minister's Office. PSD has been mandated to be fully responsible for formulating and monitoring the performance appraisal system in the civil service. It is also PSD's responsibility to ensure that the practice of human resources management in all ministries and departments is in accordance with existing policies. The PSD's scope of work is very wide and covers areas such as management and development, staffing and training administration, personnel services, research and planning, as well as counselling services. A small unit known as the 'Development and Quality Management Unit', under the Management and Development Division, with a capacity of less than ten people (Public Service Department Report, 2011), has been mandated for the collecting and gathering up of all performance information within all the ministries and departments in the public service. However, due to its highly routine and process-oriented approach, the unit has not been able to assess the impact and effectiveness of the current performance appraisal system being used in the public service. Furthermore, there is limited study on performance management initiatives within the context of Brunei's civil service (Public Service Department, 2011).

However, in order to understand the current performance appraisal system in Brunei, it is helpful to briefly look at how performance appraisal in Brunei originated. Prior to 1988, performance appraisal in the civil service was conducted as a 'closed system' in which a confidential report would be made on the performance of employees. This was in accordance with the country's General Orders 1961. Back then, it was required for confidential reports to be submitted using a prescribed form for an employee's annual increment. The civil service first introduced the current performance appraisal system in 1988. It is an 'open-system' and was introduced in stages. The first stage was



introduced among employees in Grades I, II and III (senior officers) in March 1988, while the second stage, for employees in Grades IV and V, was introduced in September 1988.

#### **3.4.1 Purposes of a Performance Appraisal System**

Before addressing the challenges with the current performance appraisal system, it is advisable to understand the main purposes and objectives of implementing the performance appraisal system in Brunei's civil service (Public Service Department Report, 2010), which are as follows:-

- i. To enhance performance and quality of services as well as productivity in the civil service;
- ii. To support the current employee management system in order to provide information which is useful to improve performance and employee effectiveness in carrying out their duties and responsibilities, support management to plan and monitor the career and potential development of the employees, as well as support management to develop their organisation.

The implementation of performance appraisal in Brunei is intended to have the following purposes:-

- i. To help the manager decides what bonuses shall be given on grounds of merit;
- ii. To determine the future use of an employee, whether they remain in his/her present job or be transferred or promoted to a higher grade;
- iii. To indicate training needs, i.e. areas of performance where improvements would occur if appropriate training could be given;
- iv. To motivate the employee to do better in his/her current job by providing the necessary knowledge and recognition as well as the opportunity to discuss his/her work with the manager;
- v. To measure actual performance against required performance;
- vi. To develop a Performance Improvement Plan.

#### **3.4.2 Stages in an open staff appraisal**

As mentioned earlier, the current appraisal system is an 'open-system' and introduced in stages according to divisions and tenure. Annual assessments are made of each job holder's performance. When the report is completed, each job holder is allowed to see

what has been written and participates in a job appraisal interview. There are six stages of an open staff appraisal (Public Service Department, 1990), which are further explained in Table 3.2 as follows:-

Stages	Description
1. Planning	The job holder and the assessor should discuss work planning for the year in advance. Both should agree on the purpose of the job, main duties and any other objectives.
2. Assessment and Review	Regular discussion throughout the year between the job holder and the assessor on achievement, problems and solutions are needed.
3. Performance Appraisal Report	A formal performance appraisal report for the job holder should be written by the Assessor once a year (usually done in September). The performance report is based on the following traits: knowledge of job; effective work output; work quality; reliability; initiative; integrity; supervision/management; intellectuality; organization of work; problem-solving; decision making; innovativeness; interpersonal skills; as well as communication.
4. Promotion Report	A formal report on promotion potential should be completed at the same time as the performance report. The line managers provide their view on the job holder's ability to do the work of the next grades, and beyond.
5. Appraisal Interview	Each year immediately following the completion of the report the Job holder will be given the opportunity to see his/her report and be invited to an interview with the relevant line manager, normally the assessor or the reporting officer. The interview should frankly review the performance in the previous year and agree the requirements for the next year which can then be written in a forward job plan.
6. Continued use of reporting information	Line managers and job holders should keep and use the current year's job plan – which may need occasional revision. Annual reports will be handled with discretion and not extensively copied, but may be provided to those dealing with postings, training or promotion.

Table 3.2: Stages in an open appraisal system (source: Public Service Department, Brunei)

### 3.4.3 Format of Appraisal Forms

Currently, there are three different performance appraisal forms each for Grade I and II, Grade III and IV, and Grade V, and the appraisal criteria consists of general and specific criteria and traits. Table 3.3 illustrates each general criteria and traits measured in performance appraisal according to Grades. As seen from Table 3.3, the general criteria

or traits are mostly based on the employee’s personality or attitude, which is very subjective and does not greatly reflect on the outcome or work productivity. Each criterion or trait is given a rating ranging from 0% to 100%. Within each criterium or trait there is no specific scale used (as opposed to BARS or BOS rating scales) and the superior or appraiser is free to rate the appraisee subject according to his/her discretion.

<b>General criteria or trait measured in performance appraisal</b>	<b>Grades I and II</b>	<b>Grades III and IV</b>	<b>Grades V</b>
Job knowledge	√	√	√
Attendance	√	√	√
Work Management	√		
Decision Making	√		
Innovativeness	√		
Communication	√		
Reliability	√		
Leadership	√		
Commitment	√	√	
Ability to finish work on time		√	√
Work quality		√	
Handling office equipment		√	√
Ability to understand		√	
Behaviour		√	√
Ability to receive instruction from superior			√
Interpersonal relations			√
Honesty and Trustworthiness			√

*Table 3.3: General criteria and traits measured in performance appraisal by Grades (source: Public Service Department, 2012)*

The individual marks for each criterium are then added together to give the overall total and then converted to a percentage (between 0% to 100%), which subsequently gives the overall grade rating using a six-point rating, as indicated in the following table:-

Grade Ratings	Percentages
A – Excellent	91% and above
B – Very Good	80% - 90%
C – Good	66% - 79%
D – Satisfactory	50% - 65%
E – Needs Improvement	30% - 49%
F – Unsatisfactory	29% and below

*Table 3.4: Grade Ratings and Percentage Equivalence in Performance Ratings  
(source: Public Service Department, Brunei)*

### **3.4.4 The Use of Performance Appraisal Information**

The civil service performance appraisal system is currently tied to annual bonuses awarded at the end of the year. Apart from the annual bonuses, it also has bearing on other aspects of employee affairs, such as promotions, post confirmations and in-service training awards, as well as Service Medals and State Decorations Awards recommendations. This initiative forms part of the rewards/incentives/motivation aspects within the civil service, where the capabilities of civil servants are continuously and regularly evaluated every year to monitor individual performance, progress and capabilities and to provide incentives to improve and develop further in performing their tasks. With respect to the annual bonuses, an employee will receive 100% of his/her bonus for rating 'A' to 'D', 50% for rating 'E' and none for rating 'F' (Prime Minister's Office Circulars, 1990). This means that an employee with an 'excellent' (A) rating will receive the same amount of reward or financial initiatives as an employee with a mere 'satisfactory' (D) rating. Therefore, there is no additional initiative for an employee who has shown excellent performance in their work.

## **3.5 CHAPTER SUMMARY**

This chapter attempted to review the context and settings of the study. The main body of this chapter focused on the background of Brunei, where this research was conducted, the structure of Brunei's public service and the current state of play of the performance appraisal system adopted in the public sector. From the author initial findings, it appears that the present performance appraisal system seems to posit more weaknesses than strengths. The fact that the appraisal is done as a piecemeal approach, which is not integrated and linked with the organisational goals and missions of ministries and departments, emphasised the need for this study. The need for a comprehensive performance appraisal system has been underlined at the highest level of the

government. The fact that the appraisal system in the Bruneian setting is based on the annual performance appraisal form, which is subjective and traits-based and which appears to emphasise less on outcome or work productivity, suggests the need for such a study to be conducted.

There is no doubt that having a civil service that is competitive and responsive will enable Brunei's population to live in contentment and comfort. As the public sector is the largest employer in Brunei and responsible for the country's political stability, peace and prosperity, it is imperative that the public sector mechanism, systems and governance need to be better managed and modernised so as to make the civil service more resilient, dynamic and relevant. Whether people like it or not, the civil service has to face the challenges and changes of globalization. The only way is to move forward and keep pace with other countries, and the review of the performance appraisal system is one way of achieving this objective. The next chapter gives a conceptual framework of how this gap can be further reduced.

## **CHAPTER FOUR: CONCEPTUAL FRAMEWORK**

### **4.1 INTRODUCTION**

This research study examines the determinants of individual level employee performance satisfaction in public sector organisations. In the literature review chapter, the researcher proposed that employee performance can be developed and enhanced through the right types of performance evaluation measures, with the right evaluation format supported by motivational factors in a conducive working culture. The conceptual approach for this study is based on a broad conceptual framework and the study examines the satisfaction of individual performance ratings in Brunei's public sector organisation. There is a need for a conceptual model or framework of employee performance that is unique to Bruneian settings and which can be used as a support and source for management in developing policies, before designing or implementing a new appraisal system within the civil service. In the performance management domain, various determinants of employee performance have already been explored, taking into account various factors that influence employee performance, as seen in Chapter 2: Literature Review.

The purpose of this chapter is to address the gap in the literature and thus develop research hypotheses to examine determinants for employee performance in the public sector. To address the hypotheses effectively, the author reviews the independent and dependent variables. The dependent construct is performance appraisal satisfaction whilst the independent constructs are: goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goals; perceived fairness of the appraisal system; types of evaluation measures; rating scales format; and appraiser-appraisee relationship and credibility of appraiser. Cultural dimensions of power-distance and in-group collectivism, as well as the effect of pay-for-performance on satisfaction of employee performance appraisal, are also explored. This leads to the clarification of the research area and the development of a conceptual framework of performance measurement systems in Brunei's public sector. In summary, this chapter addresses the adaptation of the conceptual framework, the proposed research question and the development of the hypotheses.

## 4.2 GAP IN THE LITERATURE

The previous extant review of literature (Chapter 2) revealed that much of the research that has been developed on performance within a public sector context has tended to concentrate on developing *organisational models of performance* (Downs and Larkey, 1986; Carter, *et al.*, 1992; Denhardt, 1993; Moore, 1995; Holzer and Callahan, 1998). However, little work has focused on developing *individual models of performance*, particularly in the complexity of the public sector. Although most human resource management scholars (Bretz, *et al.*, 1992; Latham and Wexley, 1993; Latham, *et al.*, 1993; Randell, 1994; Bernardin, *et al.*, 1995) and other organisational researchers (Waldman, 1994; Cardy, 1998; Wilkinson, *et al.*, 1998; Longenecker and Fink, 1999; Koopmans *et. al*, 2013) have advocated that employee performance is a key mechanism in achieving organisational effectiveness, there are hardly any meta-analysis studies that link determinants of the appraisal system to satisfaction with employee performance. Thus, the longstanding problem in measuring individual employee performance continues. The changing trends and nature of work, the work environment and sectors, the different types of performance evaluation measures, the format of rating scales and the use of performance information are just some of the key main challenges in performance management that need to be addressed. Some authors, such as Kanfer (1990) and Campbell, *et al.* (1993), have suggested that one has to differentiate performance between behavioural aspect and outcome aspect, while others (Bernadin, *et al.* 1995) have defined performance as the outcomes of work or as even embracing both behaviours and outcomes (Brumback, 1988). Whether individual performance is viewed as a dependent or independent variable, this issue needs extensive study because individual performance is important for organisational goal attainment and productivity.

Finding the right determinants of performance measurement is a perplexing problem that has challenged organisations. Landy and Farr (1983) categorised performance data as either subjective (judgemental measures) or objective (non-judgemental measures). For over three decades, academics like Carter, *et al.* (1992) and Kelly and Swindell (2002) have debated the merits of subjective and objective measures of performance, and have yet to come to a concrete conclusion as to which indicator is the effective measure. In the public management domain, the literature review has revealed that authors such as Meier and O'Toole (2003), Brewer (2004), Gould-Williams (2004), Pandey and Moynihan (2006) and Andrews, *et al.* (2006) agreed that both objective and subjective measures of performance have been used in studies of the determinants of performance in public sector organisations. However, these findings are based on the western world, such as the United States, United Kingdom and Europe. For the author, it

is interesting to identify how those measures of performance, be they subjective or objective, may generate a cultural atmosphere not receptive or conducive to performance management in the public sector. As discussed previously, these are some of the concerns shared among Asian researchers in India (Budhwar, 2000; Sharma, *et al.*, 2008), China (Bailey, *et al.*, 1997; Cooke, 2003), South Korea (Rowley and Bae, 2001), Malaysia (Abdul Hamid, 1992; Abdul Manap, 1996), Singapore (Choo, 2003; Jones, 2008) and Vietnam (Kamoche, 2001). Taking into account Hofstede's national culture in the Asian settings, these authors have advocated the value of maintaining 'face' and harmonious relationships at the workplace. As seen from Chinese, Malay and Vietnamese culture, such performance assessment depends very much on the agreeableness of the subordinate-manager relationship and that subjectivity is aimed at avoiding conflict in the organisation rather than stimulating internal competition for progress.

The literature further revealed that a number of researchers, such as Murphy and Cleveland (1992; 1995), Armstrong and Baron (1998), and Tziner, *et al.* (1998), have identified and investigated the relative importance of factors and measures influencing performance, particularly at the organisational level, in the private sector. This includes the use of personal, team-based and reward-based measures that have been adopted by many organisations. However, there is still limited empirical evidence that team-based measures are a better representation of measuring employee performance than individual-based measures (Levine and Moreland, 1990; LePine, *et al.*, 2000; Paris, *et al.*, 2000), although, in actual fact, most organisations in the public sector are working as a process-oriented unit or division that shares similar tasks. In addition, various authors (Ingraham, 1993; Kellough and Lu, 1993, Vandenabeele and Hondegheem, 2005; Moynihan and Pandey, 2007) have also debated whether rewards and pay-for-performance actually enhances organisational commitment and promotes organisational effectiveness, particularly in the public sector. This study asks whether the introduction of team-based measures and performance-related pay has a direct relation to the effectiveness of employee performance, particularly in the complexity of the public sector.

Drawing on the gap in the literature, the conceptual framework for this study is proposed. The proposed model is used to present and explain the selected independent and dependent constructs that may influence a performance appraisal system and, ultimately, the effectiveness of employee performance among public sector employees in



Brunei. The main research questions are formulated, as well as eight main hypotheses. These hypotheses are related to goal-setting alignment of personal objectives; types of performance evaluation methods; formats of rating scales; appraiser-appraisee relationship; performance-related pay; and selected dimensions of culture. From the review of the literature, and based on the author's findings, the majority of the studies have placed little emphasis on these determinants, particularly in the public sector context. Thus, the focus of this research study is to establish a conceptual framework that incorporates these variable factors.

In addition, the conceptual framework incorporates the cultural settings that appeared to be absent in previous studies. The review of the literature on cultural settings has revealed that, in individualistic cultures, a variety of formal and informal mechanisms highlight the importance of developing one's own distinct preferences and potential (Hofstede, 1997). A highly individualistic culture promotes and rewards employees based on their individual accomplishments, with an additional focus on immediacy of action and reward. There is an emphasis on autonomy, freedom, independence and self-reliance (Triandis, *et al.*, 1990). By contrast, in the collectivist cultures of far-east countries, including Brunei, cultural mechanisms tend to promote the importance of one's interdependence with others (Frucot and Shearon, 1991). The emphasis is on groups. Many organisations are designed around cohesive groups in which individual jobs are de-emphasised. But, do dimensions of culture (Kirkman, *et al.*, 2006) significantly relate to employee performance?

Currently, some researchers in the west (Martin and Smith, 2005; De Nisi and Pritchard, 2006) have moved a step forward by stressing the importance of employee performance as a strategic link-up to organisational performance and effectiveness. Less research work has been found so far in developing countries like Brunei. This requires more attention by researchers and practitioners to establish employee performance factors and predictors in different work setting environments and cultures. In Brunei, the micro-analytical approach to employee performance appraisal is minimal and has yet to be explored. Continuing this line of analysis, this study hope to establish individual models of employee performance as well as examine the impact of employee performance on organisational goal attainment and organisational performance using survey data collected from public sector organisations in Brunei.

The majority of published research work has been conducted in advanced developed countries such as the USA, UK, Australia and European countries where organisational culture, environment and employee behavioural approaches are different to those in a country such as Brunei. To the knowledge of this author, hardly any studies have been conducted in Brunei focussing on the determinants of employee performance in either the public or private sector. This study may be seen as an opportunity to validate and extend the findings of organisational and individual level performance conducted in western countries to a non-western context. The justification of this research is that there has recently been a call to review the performance appraisal system in Brunei as part of the modernisation agenda. Thus, there is need for such a study.

### **4.3 ADAPTATION OF CONCEPTUAL FRAMEWORK**

The extant literature in Chapter 2 reveals that individual employee performance and measures of performance are more complex than ever and need timely and more appropriate attention. Performance appraisal satisfaction is employee satisfaction with the performance appraisal system and is considered the most consequential among all the variables that measure reactions to appraisal feedbacks (Giles and Mossholder, 1990; Keeping and Levy, 2000; Levy and Williams, 2004). Furthermore, some authors have addressed important conceptual issues about the meaning of performance appraisal satisfaction (Fletcher, 2001; Kuvaas, 2006) while others have argued that, in order for performance appraisal to positively influence employee behaviour and future development, employees must experience positive appraisal reactions. If not, any appraisal will be doomed to failure (Cardy and Dobbins, 1994; Murphy and Cleveland, 1995). Even though performance appraisal satisfaction is the most frequently measured appraisal reaction (Giles and Massholder, 1990; Keeping and Levy, 2000) and there is extensive research on factors that contribute to performance appraisal satisfaction or other reactions (Levy and Williams, 2004), there is still lack of empirical evidence on how and why satisfaction with performance appraisal matters.

Following on from this, the study investigates how the satisfaction of individual performance appraisal relates to variable factors such as goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goals; perceived fairness of the appraisal system; types of evaluation measures; rating scales format, and appraiser-appraisee relationship and the credibility of appraiser. Cultural dimensions of power-distance and in-group collectivism, as well as the effect of pay-for-

performance, are also explored. How these variables affect the individual performance appraisal system among public sector employees in Brunei, as perceived by employees, is thus investigated. The relationships, as in the hypothesised model of study, are conceptually defined in Figure 4.1.

Apart from the selected determinants involved in the hypothesised model of study, some external factors related to the demography of the employee will also be included as a control variable. These include basic personal information such as gender, age, tenure, job grades, ministries and scope of work. By applying this conceptual approach, the researcher is interested in examining their relationship and correlation (if any), as well as assessing the model fit.

#### **4.4 PROPOSED RESEARCH QUESTIONS AND DEVELOPMENT OF HYPOTHESES**

The research objectives of this research study are threefold, as follows:

- i. To examine the attributes of the performance appraisal system used in evaluating individual employee performance in Brunei's public sector;
- ii. To develop a conceptual framework of how employees across all levels in Brunei's public sector develop their attitudes and behaviours regarding the performance evaluation method in the public sector;
- iii. To test the conceptual framework in Brunei and determine the extent to which western-developed theories can be applied in a developing country.

To answer the research objectives above, this research will address the following research questions (RQ):

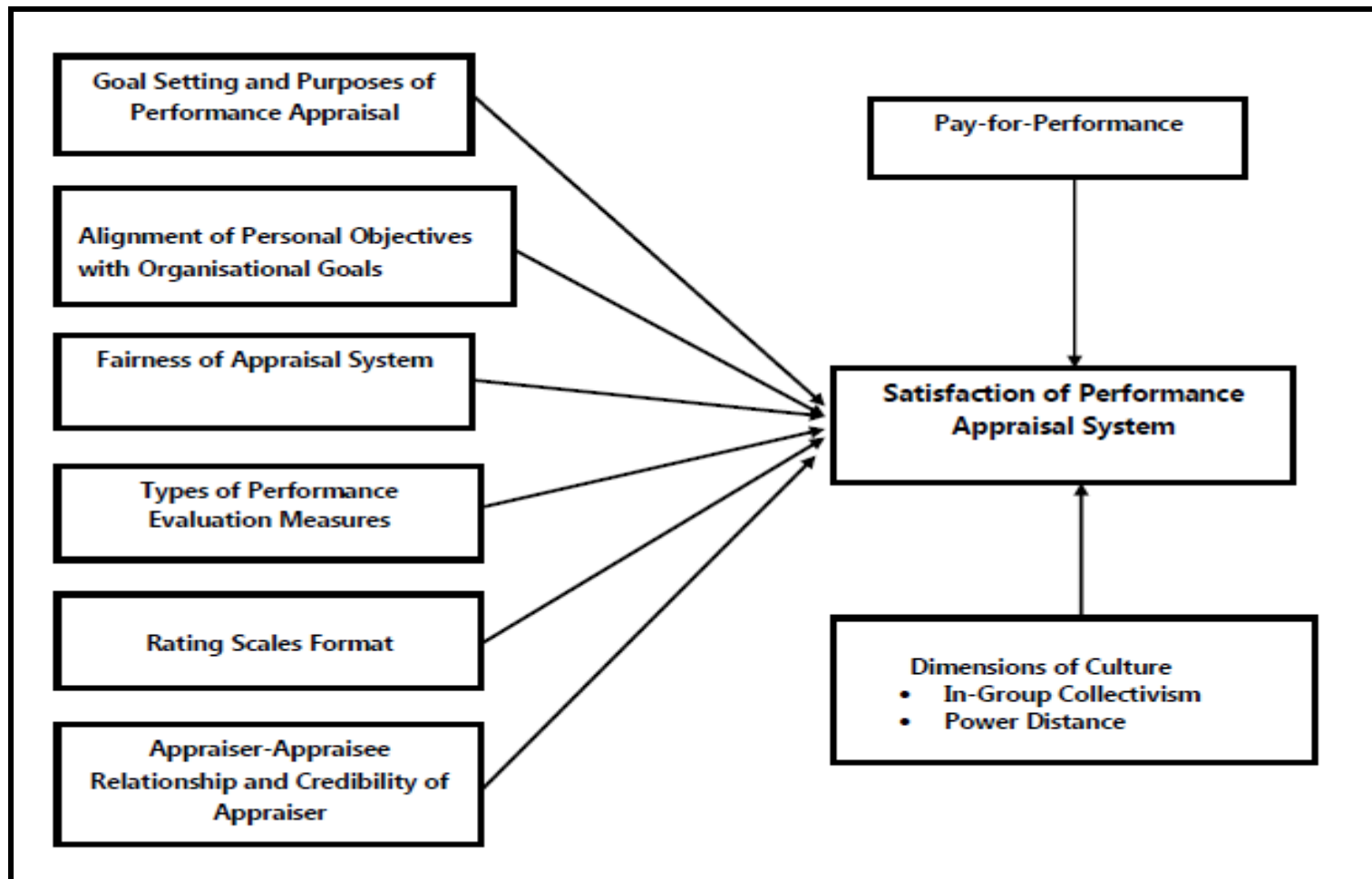
- RQ.1 What are the antecedent variables that may affect the individual satisfaction of an accurate performance appraisal system?
- RQ.2 How does an individual performance appraisal system relate to individual appraisal satisfaction?
- RQ.3 Do in-group collectivism and power-distance dimensions of culture moderate the accuracy of individual performance ratings?
- RQ.4 How effective is the current performance appraisal system in Brunei's public service with regards to measuring employee performance and achieving organisational goals?

The research hypotheses are formulated in the basis of these research questions and are the next focus of this chapter.

#### **4.4.1 Goal-Setting and the Purposes of Performance Appraisal**

The positive effects of goal-setting is among the top five established findings in the scholarly literature of human resource management (Rynes, 2007). Goal-setting theory suggests that appraisal criteria, performance goals and the purposes of performance appraisal should be clear and understandable, so as to motivate the appraisee, otherwise the appraisee would not know what to work towards (Locke and Latham, 2002). Locke and Latham (1990) highlighted that more than 90 % of empirical studies have shown positive effects of goal-setting on an employee's or team's performance. The reason why goal-setting typically has a positive effect on performance is that a specific high goal affects choice, effort and persistence. In other words, a specific goal or target increases a person's focus on what is to be accomplished as opposed to putting it off to a later date. Subsequent studies on goal-setting led to the development of the high performance cycle (Locke and Latham, 1990; Latham, *et al.*, 2002). Meta-analyses in the field of goal-setting have shown that goal commitment has a strong positive effect on performance, and that goal difficulty moderates this relationship (Klein, *et al.*, 1999). In addition to examining how a person's performance can be increased by goals, the high performance cycle also includes the consequences of action. High performance leads to external and internal rewards, which in turn promotes job satisfaction.

Figure 4.1: Hypothesised model of study [source: author's work]



A study by Selden and Brewer (2000), using data from the United States Office of Personnel Management survey of federal civil servants (n=2,774), found that high specific demand goals has a significant positive relationship with a civil servant's performance, and, ultimately, appraisal satisfaction. Employees' belief that they could accomplish something worthwhile correlated positively with performance. Employees with tasks where the appropriate course of action was unknown, and hence yet to be identified, had lower performance than their peers with tasks where ways to perform them were relatively clear. Thus, in the context of this study, it is hypothesised that:-

*Hypothesis 1 : Goal-Setting and the Purposes of Performance Appraisal are significantly and positively related to satisfaction with the performance appraisal system*

#### **4.4.2 Alignment of Personal Objectives with Organisational Goals**

Alignment of personal objectives with organisational goals is an indicator of the degree of operational goal-directed behaviour demonstrated by members of the organisation. In order to contribute most robustly to performance, the organisation, group and individual process levels must be in alignment with each other and with the organisation's tactics and strategic goals (Rummler and Brache, 1990; Juran, 1992). Aligning individual and organisational objectives is one of the most fundamental purposes of performance management, as was particularly well expressed by Fletcher (1993, p.67) when he said that "*the real concept of performance management is associated with an approach to creating a shared vision of the purpose and aims of the organisation, helping each employee understand and recognise their part in contributing to them, and in doing so, manage and enhance the performance of both individuals and the organisation*". Research investigating the importance of alignment has found the concept to be important. Bart (1988) and Bart, *et al.* (2001) traced the linkage between organisational mission and financial performance and identified that the degree to which an organisation aligns its internal structure, policies and procedures with its mission relates positively with employee behaviour, which, in turn, has the most direct relationship with organisational performance.

However, there is limited evidence as to the relationship between alignment of personal objectives with organisational goals, and employee satisfaction and commitment (Dickson, *et al.*, 2006). In their study, Dickson, *et al.* examined whether factors derived from the organisational alignment scale related to employee satisfaction and

commitment measures. It may be that the relationship is not direct, that it may be through an intervening variable, which, in the context of this study, is the perceived accuracy of individual performance appraisal. Thus it is hypothesised that:-

*Hypothesis 2 : The alignment of personal objectives with organisational goals is significantly and positively related to satisfaction with the performance appraisal system*

#### **4.4.3 Fairness of the Appraisal System**

Many studies have identified fairness of performance appraisals as an important criterion in judging performance appraisal effectiveness (Landy, *et al.*, 1978; Jacobs, *et al.*, 1980; Fulk, *et al.*, 1985; Greenberg, 1986; Evans and McShane, 1988; Dobbins, *et al.*, 1990; Taylor, *et al.*, 1995). The fairness of the appraisal system and its outcomes is examined because an appraisal system has to be seen as fair and just by appraisees in order to be effective (Greenberg, 1986). Cardy and Dobbins (1994, p.54) argued that with "*feelings of unfairness in process and inequity in evaluations, any appraisal system will be doomed to failure*". Research in this area was also encouraged by the findings of Lawler (1967) that employee beliefs about the fairness of a performance appraisal system were an important influence on the ultimate success of any performance appraisal system, because perceived fairness was linked to confidence in and, hence, acceptance of the performance appraisal system (Kavanagh, *et al.*, 2007). In the same vein, in a study of perceived fairness and accuracy of performance evaluation, Landy, *et al.* (1978) contended that the value of the appraisal system not only depends on the physical characteristics of the evaluation instrument, but may also be affected by the perceived fairness of the evaluation process. A survey of Fortune 100 companies showed the importance of perceived fairness of performance appraisal systems among practitioners (Thomas and Bretz, 1994).

Many studies have related performance appraisal fairness to performance management systems. For example, Cardy and Platz-Vieno (1990) reported that appraisal fairness was found to have strong positive correlations with the level of two-way communication. Similarly, a number of studies have demonstrated a link between attitudes towards the supervisor and perceptions of performance appraisal fairness. The findings of Landy, *et al.* (1978) and Greenberg (1986) identified the ability of a supervisor or appraiser to make an accurate evaluation of a subordinate's performance as an important influence on fairness perceptions. Additionally, Fulk, *et al.* (1985) identified a belief that open

communication with the supervisor or appraiser would not result in negative repercussions as important in promoting perceptions of performance appraisal fairness. In the same vein, Robertson and Stewart (2006) found that supervisors providing both credible and accurate feedback were perceived as more procedurally and informationally fair. They also found an improved positive relationship between fairness and motivation, indirectly linking fairness and performance. With regard to direct relations between perceived fairness constructs and satisfaction of performance appraisal, the researcher proposes:

*Hypothesis 3 : Perceived fairness of the appraisal system is significantly and positively related to satisfaction with performance appraisal*

#### **4.4.4 Types of Performance Evaluation Measures**

Finding the right determinants of performance measurement is a perplexing problem that has challenged organisations. Although subjective or judgemental measures are more widely used (Murphy and Cleveland, 1995), objective performance indices (e.g. production output and time to complete a task) have been useful measures of performance for routine, manual jobs and have received renewed attention (Lawler, 1986, Belliotti, 1992; Spreitzer, 1995; Lawler, *et al.*, 1995; Andrews, *et al.*, 2006). Both objective and subjective measures of performance have also been used in studies of the determinants of performance in public sector organisations (Meier and O'Toole, 2003; Brewer, 2004; Gould-Williams, 2004; Pandey and Moynihan, 2006; Andrews, *et al.*, 2006).

Research examining the relationship between actual performance and subjective ratings of performance has been dominated by experimental studies that have generally found a significant relationship between actual performance and performance ratings (Hamner, *et al.*, 1974; Scott and Hamner, 1975; Bigoness, 1976; Grey and Kipnis, 1976; Leventhal, *et al.*, 1977; Borman, 1978; De Nisi and Stevens, 1981). The performance appraisal systems in many public and private sector organisations allow supervisors some level of discretion of the types of performance evaluation measures used in evaluating the performance of their subordinates. Discretion enables supervisors to provide a more accurate and complete picture of a subordinates' performance than would be the case if the evaluations were based solely on objective performance indicators (Murphy and Cleveland, 1995; Gibbs, *et al.*, 2004). However, subjective



performance appraisal also opens the way to intentional and unintentional evaluation biases (Harris, 1994; Jawahar, 2005). Thus the hypothesis is as follows:

*Hypothesis 4 : The type of performance evaluation measures used in employee performance appraisal are significantly and positively related to satisfaction with the performance appraisal system*

#### **4.4.4.1 Objective and Subjective Measures**

Objective measures have been viewed as the gold standard in public management research. An objective measure should, therefore, be impartial, independent and detached from the unit of analysis (Andrews, *et al.*, 2006). Given that individual job performance is a multi-faceted and complex construct that may not be accurately captured with subjective assessments or aggregation of performance, it is important to rely on multiple objective indicators of performance. Some authors (Venkatraman and Ramanujam, 1987; Dollinger and Golden, 1992; Powell, 1992; McCracken, *et al.*, 2001) have also found measures of perceived organisational performance correlated positively to objective measures of organisational performance.

When objective performance data are not available, subjective (judgmental) performance measures may be a reasonable alternative (Dess and Robinson, 1984; Venkatraman and Ramanujam, 1987; Dollinger and Golden, 1992; Delaney and Huselid, 1996; McCracken, *et al.*, 2001; Allen and Helms, 2002; Schmid, 2002). However, Prendergast and Topel (1993) cautioned that allowing subjective judgement in performance evaluation can reduce employee motivation. This is due to the latitude for evaluators to ignore performance measures that are included in the performance plan and to use measures that differ from those originally planned. Moreover, when evaluations are subjective, employees may divert job effort toward influencing their supervisors' evaluations (Prendergast, 1993; Prendergast and Topel, 1996). A few studies have empirically examined the use and effects of subjectivity in performance measurement. In particular, Ittner, *et al.* (2003) analysed how subjective performance measures were used in a leading international financial services provider. They found that leaving room for subjectivity allowed supervisors to ignore many performance measures, and short-term financial measures often become the *de facto* determinants of bonus awards.

The question is, then, should performance measures be objective or subjective? If subjective, should they be also based on the perceptions of stakeholders who are internal or external to the organisation? What is the relationship between objective and subjective measures and between internal and external perceptions of performance? Academics have also debated the merits of objective and subjective measures of performance (Ostrom, 1973; Park, 1984; Carter, *et al.*, 1992; Kelly and Swindell, 2002). Studies have further shown that measures of perceived organisational performance correlate positively with moderate to strong associations with objective measures of organisational performance (Robinson and Pearce 1983; 1988; Dess and Robinson, 1984; Pearce, *et al.*, 1987; Dollinger and Golden, 1992; Powell, 1992; Bommer, *et al.*, 1995; Delaney and Huselid, 1996). This is consistent with Walker and Boyne (2004, p.16) who cited a range of evidence that demonstrates that *"there are positive and statistically significant correlations between objective and subjective measures of overall performance, some in the region of  $r = 0.8$ "*. The authors added that performance is a multidimensional construct and that the strongest correlations are found between measures that tap similar dimensions (Wall, *et al.*, 2004). Such findings, however, are only achieved when measures of the same dimensions of performance are used (Voss and Voss, 2000; Guest, *et al.*, 2003). Theorists who have examined objective and subjective performance measures have generally agreed that they should not be used interchangeably (Murphy and Cleveland, 1991). These recommendations were empirically supported by Heneman (1986), who reported a corrected mean correlation of only 0.27 in a meta-analysis of the relationship between subjective supervisory ratings and objective result-oriented measures.

A few primary researchers and meta-analysts have explicitly looked for differences in relationship strength between multiple independent constructs with subjective and objective measures of performance. However, contrary to expectations, no significant relationship difference has been found. For example, Nathan and Alexander (1988, p.531) found *"a difference between objective and subjective measures in only one of the seven relationships examined, and concluded that the objective/subjective distinction may be more illusory than real"*. Their conclusion is corroborated by several meta-analyses. In examining the relationship between age and performance, McEvoy and Cascio (1990) found no difference in the strength of relationships involving productivity (objective measures) and supervisor ratings (subjective measures). In their examination of integrity tests and overall job performance, Ones, *et al.* (1993) found no difference between the relationships involving production records and ratings. Tett, *et al.* (1991) failed to find objective and subjective performance measurement differences in a meta-analysis examining personality as a predictor of job performance. Similarly, in their

commitment study, Mathieu and Zajac (1990) found no objective or subjective relationship strength differences. Even a study that did not explicitly examine the difference in the relationship (Williams and Livingstone, 1994), when manually recalculated, yielded no significant difference. While studies of the measurement of performance in the private sector have explored this issue, little work has been done on public organisations. Thus, the findings have shown that objective and subjective measures of performance are not interchangeable. The next hypotheses are as follows:-

*Hypothesis 4a : Objective performance appraisal is a better representation of employee performance than subjective performance appraisal*

*Hypothesis 4b : Subjective or traits-based performance evaluation is not a reliable indicator of an employee's actual performance*

#### **4.4.4.2 Team-based Measures**

Team-based measures as the level of analysis of performance evaluation have been addressed in the literature (Levine and Moreland, 1990; LePine, *et al.*, 2000; Paris, *et al.*, 2000). There has also been a substantial upsurge in interest in teams (Hackman, 1990; Osburn, *et al.*, 1990; Bettenhausen, 1991; Tjosvold, 1992) and team performance (Fleishman and Zaccaro, 1992). Many researchers have demonstrated that the relationship between team performance and its influencing factors is a complex one, and have called for more empirical research to draw more reliable conclusions regarding its nature and strength. Campion, *et al.* (1993; 1996) studied correlations between several processes and team outcomes, including member satisfaction, productivity, and judgments of effectiveness. The independent (process) variables in their research included potency (the group's belief that it can be effective - similar to the notion of team spirit), social support (members helping one another and providing for positive social interactions), workload sharing (each member doing his or her fair share), communications (members willingly sharing information) and cooperation (members cooperating to get the work done). The results of their first study (n=80 groups) of a financial organisation showed that productivity was related to all the process factors. Relationships between the process factors and judgments of effectiveness and member satisfaction were less consistent. In their second study (n=60 groups), they showed significant relationships between most of the process factors and judgments of effectiveness and member satisfaction (productivity was not measured in this study). Results for both studies also showed small to moderate relationships between process variables and inputs related to job design (self-management, participation, task variety,

task significance), interdependence (task, goals, and feedback), composition (heterogeneity, flexibility, group size) and context factors (training, manager support, and communication/cooperation between teams).

In another empirical study, Barrick, *et al.* (1998) tested the effects of cohesiveness, conflict, openness of communication, team member flexibility (the extent to which the team members know each other's job) and workload sharing on outputs, including team viability and performance, in a study of 51 manufacturing teams. They found that team performance and viability were superior for teams scoring high in cohesiveness, openness of communication and member flexibility and low in conflict. From this study, the approaches to studying relations between team members' characteristics and team performance implicitly assume that the sum of the contributions of individual members determines the effectiveness of the team as whole. In other words, the behaviour or performance of individuals aggregates directly to determine the level of effectiveness of the team, which in turn influences the performance of employees. Thus the next hypothesis is:

*Hypothesis 4c : Team-based measures are a better representation of employee performance appraisal than individual-based measures.*

#### **4.4.5 Format of Rating Scales**

Rating scale formats range from graphic ratings scale – GRS (Paterson, 1922); behaviourally anchored rating scales – BARS (Smith and Kendall, 1963) and behavioural observation scales – BOS (Dunnette, *et al.*, 1968). Studies of the psychometric properties of BARS ratings have shown that BARS possess medium to high reliability (; Smith and Kendall, 1963; Fogli, *et al.*, 1971; Burnaska and Hollmann, 1974; Landy, *et al.*, 1976), adequate convergent validity (Zedeck and Baker, 1972; Dickenson and Tice, 1973; Ivancevich, 1977;) and that BARS do correlate highly with appropriate objective performance measures (Cascio and Valenzi, 1978). BARS ratings seem to possess adequate convergent validity, but questionable discriminant validity (Zedeck and Baker, 1972; Campbell, *et al.*, 1973; Dickinson and Tice, 1973; Williams and Seiler, 1973). While BARS ratings are not necessarily freer from bias and psychometric error than those obtained from scales developed using different, yet equally rigorous, methods (Bernardin, *et al.*, 1976; Friedman and Cornelius, 1976; Bernardin, 1977;, field tests have demonstrated that BARS are superior to typical graphic rating scales in terms of

reliability, validity and freedom from halo and leniency error (Campbell, *et al.*, 1973; Burnaska and Hollmann, 1974; Keaveny and McGann, 1975; Borman and Dunnette, 1975; Vance, *et al.*, 1978).

In summary, while BARS falls short of being the ideal performance appraisal technique, it does appear to have some value for use in the field (Dunnette, 1966; Campbell, *et al.*, 1970; Schwab, *et al.*, 1975). However, overall, researchers have agreed that differences in rating scale formats seem to have little impact on the reliability or validity of performance ratings (Schwab, *et al.*, 1975; DeCotiis, 1977; Landy and Farr, 1980; Gosselin and Murphy, 1994; Murphy and Cleveland, 1995). However, it is possible that differences in rating scale formats could influence other important dependent variables. In particular, different methods of obtaining and recording information about job performance may be more or less conducive to the developmental uses of performance appraisal (Tziner, *et al.*, 2000). Thus:

*Hypothesis 5 : The format of rating scales used is significantly related to satisfaction with the performance appraisal system*

#### **4.4.6 Appraiser-Appraisee Relationship and Credibility of Appraiser**

Prior research suggests that the relationship between appraiser and their appraisee, as well as the credibility of the appraisers, is critical to an effective appraisal (Duckett, 1991; Mo, *et al.*, 1998; Chow, *et al.*, 2002). It is important that employees trust their supervisors and appraisers and have a good relationship with the latter appraisers so that they will view the appraisal process as constructive and regard critical feedback positively (Stiggins and Bridgeford, 1985; Duke and Stiggins, 1986). In order for the evaluation outcomes to be perceived as reliable and useful for providing feedback to improve employee performance, the appraiser must be viewed in such a way that he or she is competent, capable of evaluating their subordinates and unbiased.

The relationship of appraiser and appraisee relates to the leader-member exchange theory. Unlike more traditional leadership theories, leader-member exchange theory contends that the characteristics of the appraiser-appraisee, or dyadic, relationship, as compared to characteristics of the leader, are predictive of outcomes at multiple levels of analysis (i.e. employee, dyadic, group and organisatioanl levels of analysis; Gerstner and Day, 1997). According to leader-member exchange theory, leaders

(appraiser/supervisor) do not treat all members (subordinates) equally, but form different exchange relationships (i.e. of relatively high and low quality) with members (Dansereau, *et al.*, 1975) High-quality leader-member relationships are, for example, characterised by increased levels of mutual support and trust whereas low-quality relationships are characterised by lower levels of these characteristics (Liden and Maslyn, 1998; Gerstner and Day, 1997; Maslyn and Uhl-Bien, 2001).

Dipboye (1985) argued that an appraiser's interpersonal affect may influence performance evaluations independent of objective information and apart from the cognitive processes associated with performance evaluations. Appraisers may simply give higher ratings to their subordinates they like and lower ratings to those they dislike. This may occur in order to preserve a prior relationship with the appraisee (Kingstrom and Mainstone, 1985). Previous research has also revealed that appraisees are more satisfied with and accepting of feedback when they perceive the source of that feedback to be knowledgeable (Klien, *et al.*, 1971). Landy, *et al.* (1978) and Fulk, *et al.* (1985) reported that subordinates who perceived their supervisors to be knowledgeable about their jobs and performance felt their performance was evaluated accurately more than subordinates who perceived their supervisor as less knowledgeable. As the relationship between appraiser and appraisee, as well as credibility of the appraiser, reflects the accuracy of the individual appraisal system, it is hypothesised that:-

*Hypothesis 6 : Appraiser-appraisee relationship and credibility of appraiser are significantly and positively related to satisfaction with the performance appraisal system*

#### **4.4.7 Dimensions of Culture**

Although performance appraisal is considered integral to an organisation's performance management system, it is also viewed as one of the most difficult management practices to implement, particularly in the cross-border context (Huo and Von Glinow, 1995; Fletcher and Perry, 2001). Intercultural research has established that congruence between management practices and national culture is fundamental to success (Newman and Nollen, 1996). The unique norms, values and beliefs inherent in different cultures affect the way employees are motivated and controlled as well as their equity, expectancy and justice perceptions. Consequently, an appraisal architecture developed and regarded as effective in one country may not be suitable in another cultural setting.

Building on a number of well-established and empirically validated foundations, House, *et al.* (2004) identified and measured a range of cultural dimensions that influence management practices. These were partly based on Hofstede's popular typology of culture (Hofstede, 1984; 1997) while others were constructed and measured based on a combination of prior studies (Kluckhohn and Strodtbeck, 1961; McClelland, 1985; Hampden-Turner and Trompenaars, 1993). In particular, since performance appraisal is an important means to direct, control, evaluate and reward employee behaviour, certain cultural dimensions measured by House, *et al.* (2004), such as *assertiveness*, *in-group collectivism*, *power-distance*, and *uncertainty avoidance*, reflect an appraisal's underlying values and have been used by prior research to capture substantial variations in appraisal across different cultures (Elenkov, 1998; Milliman, *et al.*, 1998; Ramamoorthy and Carroll, 1998; Snape, *et al.*, 1998). However, for the purpose of this study, the author will focus on two dimensions of culture, 'in-group collectivism' and 'power-distance'.

There is no doubt that the effects of local cultural settings are usually anchored in the organisation through traditions. A particular cultural feature may affect different performance-related organisational processes in different ways. Development of shared meanings may, for instance, have a positive effect on organisational control, but at the same time create conformism and reduce the organisation's capacity to learn and change. Bass and Avolio (1993) highlighted the importance of adaptive and flexible organisational culture. These authors used the distinction between transformational and transactional organisational culture types to identify those organisations supportive of innovation, transformation and change (transformational culture) and those that maintained the status quo, based on pre-established rules and structures, and inspired limited levels of commitment and motivation (transactional culture). Transformational cultures encourage and support innovation and open discussion of issues and ideas, so that challenges become opportunities rather than threats (Bass, 1998). In this way, they promote flexibility and adaptability. Because these cultures also maintain the focus on an ultimate vision, there is enough stability and strength to support and enhance employees' personal motivations (Afsaneh, 1993). Thus, employees of transformational cultures go beyond their self-interests and strive towards achieving organisational goals. Research evidence suggests significant positive correlations between transformational culture and desirable organisational and individual outcomes (Parry and Proctor, 2000). Differences in culture, technology or tradition make it difficult to directly apply techniques that have worked in one setting to another (Hofstede, 1993). Thus, it is hypothesised that:-

*Hypothesis 7: The extent of selected dimensions of culture will moderate the performance appraisal system*

#### **4.4.7.1 In-Group Collectivism**

In-group collectivism reflects the degree to which individuals express pride, loyalty, and cohesiveness in their families and organisations (Triandis, 1995; House, *et al.*, 2004). Low in-group collectivism implies that an individual's employment relationship is mainly transactional and utilitarian (Bochner and Hesketh, 1994). Societies that score low on in-group collectivism differentiate employees based on individual performance (Hofstede, 2001). They value competition and prefer performance systems that maximize personal and economic gain (Chiang, 2005). Hence, employees are more inclined to accepting differences in appraisal results between individuals. Linking appraisal (performance outcomes) to rewards (pay) fosters a greater sense of equity and fairness and enhances the motivational and reward-performance instrumentality of performance evaluations (Adams, 1963; Porter and Lawler, 1968). Appraisal that emphasises evaluation, such as rewards and pay and promotion, should therefore be more prevalent in these cultures. By contrast, high in-group collectivists have been found to attach greater importance to group harmony and face (Triandis, 1989). Continuous and long-term human ties with group members are preferred over the importance of 'self' or 'individual' (Markus and Kitayama, 1998). Appraisal which differentiates employees based on their performance is viewed as detrimental to relationships and the morale of the group. Non-performance factors (e.g. seniority, loyalty), which are thought to preserve harmony and order within the group, supersede individual merit (Chiang and Birtch, 2006). Additionally, using appraisal primarily to determine pay and promotion would not be desirable.

Differences in in-group collectivism also influence appraisal practices. Formal appraisal was found to be more prevalent in the USA (low in-group collectivism), where rationality and impersonality are emphasised (Ramamoorthy and Carroll, 1998). Frequent, open and direct appraisal feedback promoted fairness, improved performance, provided intrinsic motivation and acted as a positive reinforcer (Sully de Luque and Sommer, 2000; Kacmar, *et al.*, 2003). In comparison, a negative relationship was found between appraisal formality and high in-group collectivism (Ramamoorthy and Carroll, 1998). Informal feedback facilitates a more indirect, passive and subtle approach to commenting on employee performance, avoids potential confrontation and is more compatible with indirect and implicit collectivist patterns of communication (Latham and



Napier, 1989; Easterby-Smith, *et al.*, 1995; Triandis, 1995). In a study by McEvoy and Cascio (1990), the authors found that Americans were more willing to accept and support performance appraisal compared to Taiwanese, who considered it unnecessary, problematic and detrimental to individual self-esteem. This finding is consistent with the notion of maintaining face and respecting the elderly in Chinese and Confucian cultures, respectively (Hofstede and Bond, 1988). Such cultures tend to avoid situations, for instant discussing under-performance, that could lead to loss of 'face' and social harmony (Walker and Dimmock, 2000). Open and frank discussions about performance problems are thus less likely (Hempel, 2001).

Participation in the appraisal process is believed to foster procedural justice and is consequently encouraged in low in-group collectivist cultures (Greenberg, 1990). By contrast, active involvement and participation is less common in high in-group collectivist cultures. In a study comparing the views of Hong Kong and US managers, Entekin and Chung (2001) found that the former preferred a more top-down, less participative style of appraisal than did their US counterparts. In addition, multi-source rating (e.g. 360-degree appraisal) is unlikely to be acceptable in high in-group collectivist cultures (Aycan, 2000). Peer evaluation requires constant monitoring of one's colleagues and, as a consequence, may disturb in-group harmony and relationships. Similarly, self-appraisal, which emphasises 'self' and personal achievement, is not compatible with cultures where modesty and relationships are highly valued (Hempel, 2001). Thus, it is hypothesised that:

*Hypothesis 7a : In-group collectivism will moderate satisfaction with the performance appraisal system*

#### **4.4.7.2 Power-Distance**

Power-distance is defined as the degree to which members of an organisation or society accept unequal distributions of power (House, *et al.*, 2004). Hierarchical structures present in the workplace in high power-distance societies reflect tolerance for status, position and seniority (Hofstede, 2001). Tolerance for hierarchical solutions, respect for authority, and loyalty mean that subordinates are more likely to accept evaluations and subsequent decisions made by their supervisors. Dissenting views are not expressed openly, as these would threaten the status and power of one's supervisor (Milliman, *et al.*, 1998). Thus, appraisal will be used more to support compensation and promotion

decisions that reinforce loyalty and the authority structure (Aycan, 2003). Moreover, an emphasis on hierarchy makes it difficult for direct dialogue with a superior. Subordinates are expected to passively receive their supervisor's unidirectional assessment rather than actively participate in the discussion (Hofstede, 2001). The notion of procedural justice, which entails two-way communication and employee participation in the appraisal process, would not be appropriate (Chiang and Birtch, 2007). Instead, hierarchical and less participative performance reviews are more likely (Entrekin and Chung, 2001).

In contrast, power differentiation is less pronounced in low power-distance cultures. These cultures are characterised by decentralised decision-making and mutual communication (Hofstede, 2001). A more participative style of management is preferred (Snape, *et al.*, 1998). As expectancy theory suggests, in a participatory style of appraisal performance outcomes will be enhanced when employees have a clear understanding of what is expected of them and a greater sense of ownership over the outcome. Appraisal provides an opportunity for subordinates to express their views and interact with supervisors to clarify job expectations. Justice-based performance appraisal entails two important criteria - control and trust, both of which are influenced by power-distance (Thibaut and Walker, 1975; Shane, 1993; Doney, *et al.*, 1998). For example, appraisal in high power-distance cultures is used as a control mechanism by which the manager performs a judicial role, rather than the coaching/facilitating role found in low power-distance cultures (Terry, 1984). Subordinates have no legitimate voice, do not participate in the process and are reluctant to confront their superiors when they disagree (Brockner, *et al.*, 2001). Essentially, management and subordinates do not communicate easily or interact on a collaborative basis (Sully de Luque and Sommer, 2000). Furthermore, hierarchy, centralization and control lead to opportunism and, in turn, hinder trust (John, 1984; Porta, *et al.*, 1997). High power-distance has been found to correlate with lower degrees of interpersonal trust (Shane, 1993). Individuals feel more alienated, as they are less involved in the appraisal process. By contrast, in low power-distance cultures, an egalitarian supervisor-subordinate relationship encourages greater interaction across hierarchies. Trust is built when a supervisor and subordinate interact frequently on job-related performance issues (Rousseau, *et al.*, 1998). Given that power is shared and decision-making is more participative, people tend to trust one another more.

Power-distance also influences who performs the ratings (Fletcher and Perry, 2001). Evaluating another's performance is a key indicator of power and authority in a high power-distance culture. The supervisor's opinion is viewed as more important than that

of a subordinate or others (Hofstede, 2001). For example, peer evaluation would not be valued, as it implies less hierarchy in the organisation's power structure. Similarly, the status hierarchy would be seriously violated if a subordinate was involved in the appraisal of a supervisor providing upward feedback (Latham and Napier, 1989). Hence, the use of multi-source rating might confuse the lines of authority and disrupt the network of power (Lepsinger and Lucia, 1997). However, the use of multiple raters (e.g. peers, subordinates, self) should be more common in low power-distance cultures, since multi-source rating represent an effort by organisations to increase employee participation and empowerment, both of which are features of flatter and less hierarchical organisations in these cultures (Groeschl, 2003). Evidence by Entarkin and Chung (2001) confirms the prevalence of multi-source rating in the USA.

Thus, the next hypothesis is:-

*Hypothesis 7b : Power-distance will moderate satisfaction with the performance appraisal system*

#### **4.4.8 Pay-for-Performance**

There is a long-standing belief that the public sector and non-profit organisations need to be more business-like in their attitudes and operations (Dart, 2004). As a result, current reforms in the public sector are characterised by the introduction of management practices and techniques originally developed for the business sector; for example, budgeting techniques, market analysis, and performance management (Moynihan, 2006). One of the most significant challenges is the introduction of business-like incentive structures, in particular the introduction of 'pay-for performance' (PFP) schemes in public institutions (Varone and Giaque, 2001; Swiss, 2005; Cardona, 2006). Two-thirds of the member countries of the Organisation for Economic Cooperation and Development (OECD), along with a number of developing countries, have adopted performance-related pay practices; for example, Brazil, Mexico, the Netherlands, New Zealand, the United Kingdom, United States and Canada (OECD, 2005; Cardona, 2006). The underlying assumption is that, when pay-for-performance schemes are correctly administrated, it will boost the efficiency of the public sector (Kahn, *et al.*, 2001; Burgess and Ratto, 2003; Swiss, 2005; Lavy, 2007) and positively impact employees' motivation (Propper, 2006).

However, the public sector may have some specific characteristics, which restrict the naive adoption of pay-for-performance. Incentive systems, which are effective and efficient in one organisational context, might be ineffective or even counterproductive when implemented in another (Chenhall 2003). Indeed, experiences with pay-for-performance schemes in the public sector are mixed. An OECD (2005) analysis stated that "there is no conclusive empirical evidence that such an approach has effectively helped to improve motivation and performance within the public service" (Cardona, 2006). Perry, *et al.* (2006) argued that reviews which include the public sector suggested that performance-related pay systems have generally been unsuccessful (Ingraham, 1993; Kellough and Lu, 1993). The opponents of pay-for-performance schemes further argue that theories based on self-interest cannot provide sufficient grounds to analyse the motivation of employees, especially that of employees in the public sector (Vandenabeele and Honddeghem, 2005; Moynihan and Pandey, 2007). Such incentives produce hidden costs (Lepper and Greene 1978), which has also been referred to as the corruption effect (Deci, 1975), overjustification effect (Lepper and Greene, 1978) and crowding-out effect (Frey and Oberholzer-Gee, 1997), and thus may negatively impact performance.

However, despite all the contradictions, various research findings on reward systems have explored their implications on organisational performance (Prendergast, 1999; Lazear, 2000; Brown, *et al.*, 2003; Weibel, *et al.*, 2009) on the premise that rewards influence the behaviour of individuals, which, in turn, leads to organisational performance. This is illustrated in Table 4.1 below. Behavioural management scholars and standard economists such as Prendergast, (1999) and Stajkovic and Luthans (2003) have conducted a number of studies to support this argument. Lazear (2000), for example, analysed the case of Safelite, the United States' largest windshield manufacturer. In the mid-1990s, Safelite replaced hourly wages by piece rates (with a guaranteed minimum wage). As a result, productivity improved by 44% (Lazear, 2000). In addition, Heneman (1992, p.47) reported that "*a number of studies have shown a relationship between performance ratings and changes in pay such that higher performance ratings are associated with higher increases in merit pay*". In other words, there is some evidence to suggest that organisations are able to relate PFP schemes to past performance and, to this extent, it is possible that the reward function of PFP is being satisfied.

Author (s) and publication date	Major findings
Summers and Hendrix (1991)	- Positive relationship found between pay fairness and pay satisfaction
Arthur (1994)	- Higher rewards contribute to a decrease in turnover
Delaney and Huselid (1996)	- Incentive compensation has positive impact on perceived organisational performance
Lazear (1996)	- Performance-related pay affects productivity positively
Dowling and Richardson (1997)	- Performance-related pay affects employee motivation positively
Doherty (1998)	- High dissatisfaction was related to rewards that are perceived as unfair, impersonal or as punishment
Appelbaum <i>et al.</i> (2000)	- Pay for performance is positively related to employee trust and organisational commitment

Table 4.1: *Meta-analyses findings on rewards and performance (source: adapted from Sonnentag, 2002, p. 212 and Paauwe, 2004, pp. 74-75)*

Drawing on self-efficacy theory (Bandura, 1997) and expectancy theory (Vroom, 1964), the author proposes that rewards and pay creates motivation to excel in work and, ultimately, performance. Human behaviour can be directed through the selective deployment of rewards or sanctions. Individuals will perform best when the incentive system links rewards as closely as possible to performance. The same argument is also supported by behavioural management theory. Behavioural management theory argues that pay-for-performance enhances personal efforts and, thus, individual performance (Luthans and Kreitner, 1985; Lehman and Geller, 2004). A basic assumption behind rewards and pay-for-performance is that making a direct association between performance and financial reward will enhance the level of organisational commitment of public employees and eventually promote organisational effectiveness and job satisfaction (Moon, 2000). Thus, the next hypothesis is that:-

*Hypothesis 8 : The presence of pay-for-performance is significantly and positively related to satisfaction with the performance appraisal system*

#### **4.4.9 Demographic variables**

Apart from the above predictor variables, demography may play an important role in the employee performance management domain. Demographic characteristics include basic personal information, such as gender, age, tenure, job grades, ministries and scope of work. In the study, the author measures multiple demographic variables (age, job

tenure, seniority in the organisation, ministries and gender) and uses them as control variables in regression analyses for descriptive purposes only.

#### **4.5 CHAPTER SUMMARY**

This chapter identifies the gap in the literature associated with the main aim and objectives of the thesis. The chapter is used to present a conceptual framework which has been developed with reference to the setting of Brunei. In essence, the conceptual framework consists of performance appraisal satisfaction as the dependent construct whilst the independent constructs are: goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goals; perceived fairness of the appraisal system; types of evaluation measures; rating scales format; and appraiser-appraisee relationship and credibility of appraiser. Cultural dimensions of power-distance and in-group collectivism, as well as the effect of pay-for-performance on satisfaction of employee performance appraisal, also feature in the conceptual framework as moderating variables. Finally, four research questions and thirteen research hypotheses, based on the research objectives, are presented.

## **CHAPTER FIVE: RESEARCH METHODOLOGY AND METHODS**

### **5.1 INTRODUCTION**

The previous chapters reviewed the literature (Chapter 2), context and settings of the study (Chapter 3) and the development of the conceptual framework (Chapter 4). This chapter outlines the research methodology and methods and is concerned with the choice of appropriate methodology by which the validity of the research was judged. As previously discussed, this research was developed on the basis of a literature review and conceptual approach. With the support of the conceptual approach, research hypotheses were developed in relation to independent and dependent constructs. In order to select a methodological approach, a philosophical stance was reviewed to understand the relationship and justification of the approach which has been adopted. This justification will eventually lead to the rationale of the methods adopted. The relationship between research objectives, research questions and the relevant hypotheses is shown in Table 5.1. From this table, it is seen that research objectives 2, 3 and 4 of this study are related to all four research questions. The research questions are then mapped out to the relevant hypotheses, wherein the methodology used for answering these research questions and hypotheses is performed through semi-structured interviews and survey questionnaires to public sector employees working across all grades in various Brunei ministries.

The methodology chapter further discusses qualitative and quantitative methods as general approaches to the construction of theory, as well as the applicability of mixed methods and triangulations. Drawing on research approach, a research design has been established to follow the study step-by-step in a systematic way. The researcher discusses in detail the empirical research methodology, including data collection, measurement scales, samplings and data analysis procedures. This chapter also includes initial data examination and data screening for the main quantitative study.

Table 5.1: Summary of Relationship between Research Objectives, Research Questions and Related Hypotheses (developed by the researcher)

Research Objectives (O)	Research Questions (RQ)	Hypotheses (H)	Methodology and Respondents
<p><b>O.2:</b> To examine the attributes of the performance appraisal system used in evaluating individual employee performance in the public sector of Brunei Darussalam;</p> <p><b>O.3:</b> To develop a conceptual framework how employees across all levels in the public sector of Brunei develop their attitudes and behaviours regarding performance evaluation method in the public sector</p> <p><b>O.4:</b> To test the conceptual framework in Brunei and determine the extent towards which western developed theories can be applied in a developing country</p>	<p><b>RQ.1</b> What are the antecedent variables that may affect the perception of an accurate individual performance appraisal system?</p> <p><b>RQ.2</b> How does individual performance appraisal relate to individual appraisal satisfaction?</p> <p><b>RQ.4</b> How effective is the current performance appraisal system in the public service of Brunei Darussalam with regards to measuring employee performance and achieving organisational goals?</p> <p><b>RQ.3</b> Does in-group collectivism and power distance dimensions of culture moderates the accuracy of individual performance ratings?</p>	<p><b>H1:</b> Goal Setting and Purposes of Performance Appraisal is significantly and positively related to the satisfaction of performance appraisal system</p> <p><b>H2:</b> The alignment of personal objectives with organisational goal is significantly and positively related to the satisfaction of performance appraisal system</p> <p><b>H3:</b> Perceived fairness of Appraisal System is significantly and positively related to the satisfaction of performance appraisal system</p> <p><b>H4:</b> The type of performance evaluation measures used in employee performance appraisal is significantly and positively related to the satisfaction of performance appraisal system</p> <p><b>H4a:</b> Objective performance appraisal is a better representation of employee performance than subjective performance appraisal</p> <p><b>H4b:</b> Subjective or traits-based performance evaluation is not a reliable indicator of employee's actual performance</p> <p><b>H4c:</b> Team-based measures are a better representation of employee performance appraisal than individual-based measures.</p> <p><b>H5:</b> The format of rating scales used is significantly related to the satisfaction of performance appraisal system</p> <p><b>H6:</b> Appraiser - Appraisee Relationship and Credibility of Appraiser is significantly and positively related to the satisfaction of performance appraisal system</p> <p><b>H8:</b> The presence of pay-for-performances link mediates the relationship satisfaction of performance appraisal system</p> <p><b>H7:</b> The extent of selected dimensions of culture will moderate the performance appraisal system</p> <p><b>H7a:</b> In-group collectivism will moderate the satisfaction of performance appraisal system</p> <p><b>H7b:</b> Power distance will moderate the satisfaction of performance appraisal system</p>	<p>This is done in two stages. An exploratory qualitative study using semi-structured interviews (n=20), and main study (quantitative) which employed survey questionnaires (n=500).</p> <p>The respondents are public sector employees (male and female) working across all grades in various ministries in Brunei Darussalam.</p>



## 5.2 RESEARCH PHILOSOPHY AND FOUNDATIONS

### 5.2.1 Research Paradigm

This section is concerned with the philosophical stance of the researcher, by which the method to be adopted for the research is decided. The different research fields relate to different philosophical issues that affect the research in many ways, like data collection and data analysis. A paradigm is a set of propositions that explains how the world is perceived; it contains a worldview, a way of breaking down the complexity of the real world, telling researchers and social scientists in general "what is important, what is legitimate, what is reasonable" (Kuhn, 1970; Guba, 1990; Patton, 2002, p.37). Guba and Lincoln (1994) pointed out that the bases for research paradigms are ontology, epistemology and methodology. Ontology is related to what exists and the nature of the world, whereas epistemology deals with how the knowledge of external reality is acquired (Sekaran, 2003). According to Crotty (1998), epistemology is related to knowledge theories (Kvale, 1996) while ontology focuses on sought realities (Scott, 2000). As for methodology, there are two main research paradigms, positivist and phenomenological [or social constructionism] (Easterby, *et al.*, 1991; Hussey and Hussey, 1997). The positivist approach is understood as being scientific and is quantitative while the phenomenological is understood as non-positivist and qualitative. However, many authors prefer to use alternative terms for the main research paradigm, as in Table 5.2. These are distinct views about how knowledge is developed and both have a significant role to play in management research.

Positivistic paradigm	Phenomenological paradigm
Quantitative	Qualitative
Objectivist	Subjectivist
Scientific	Humanistic
Experimentalist	Interpretivist
Traditionalist	

Table 5.2: *Alternative terms for the main research paradigms (adapted from Hussey and Hussey, 1997, p. 47)*

#### a. Positivism

The key idea of positivism is that the social world exists externally, and that its properties should be measured through objective methods, rather than being inferred subjectively through sensation, reflection or intuition (Easterby, *et al.*, 2008, p.57). Positivism is often taken to be identical to quantitative methodology, because it contains

the ontological and epistemological prescriptions that show how this methodology should conduct research. According to Saunders, *et al.* (2009, p. 113), the researcher assumes the role of an objective analyst, serenely building detached interpretations of the data, which have been collected in an apparently value-free manner and the framework also assumes that the researcher is independent of and is neither affected by nor influences the research. The philosophical assumption of positivism is shown in Table 5.3. In a way, this position may be the preferred method to investigate human and social behaviour, as it is concerned with numerical data collection for understanding human behaviour.

The positivist research paradigm reveals an understanding of human behaviour with the help of objective values. In the positivist paradigm, researchers use the language of theories, variables and hypotheses. Scientific in nature, the positivist paradigm deals with the numbers in an objective form and uses statistical methods for analysis. Statistical methods in quantitative research "*seek to explain and predict what happens in the social world by searching for reliability and causal relationships between its basic elements*" (Burrell and Morgan, 1979, p. 5). The positivist approach is far more reliable in studies when the objective of the research is to gather data related to the regularity of occurrence of phenomena. The aim is to develop applicable and reliable methods of obtaining 'facts' about society that can be statistically analysed in order to produce substantiated explanations about how the social world operates (Gilbert, 2001, p. 32).

b. Phenomenological (or social constructionism)

Phenomenology is the science of phenomena; as such, the phenomenological paradigm is concerned with understanding human behaviour from the participant's own frame of reference (Hussey and Hussey, 1997). The view is that 'reality' is not objective and exterior, but is socially constructed and given meaning by people. This means that the task of the researcher should not be "*to gather facts and measure how often certain patterns occur, but to appreciate the different constructions and meanings that people place upon their experience*" (Easterby, *et al.*, 2008 p.59). The focus should be on what people, individually and collectively, are thinking and feeling and attention should be paid to the ways they communicate with each other, either verbally or non-verbally. Thus, "*a researcher should try to understand and explain why individuals have diverse experiences, rather than searching for external causes and fundamental laws to explain behaviour*" (Ibid).

Table 5.3 Philosophical assumptions of positivism (adapted from Easterby, et al., 2008, p.58).

Independence	The observer must be independent from what is being observed
Value-freedom	The choice of what to study, and how to study it, can be determined by objective criteria rather than by human beliefs and interests
Causality	The aim of the social sciences should be to identify causal explanations and fundamental laws that explain regularities in human social behaviour
Hypothesis and deduction	Science proceeds through a process of hypothesizing fundamental laws and then deducing what kinds of observations will demonstrate the truth or falsity of these hypotheses
Operationalization	Concepts need to be operationalized in a way which enables facts to be measured quantitatively
Reductionism	Problems as a whole are better understood if they are reduced into the simplest possible elements
Generalization	In order to be able to generalise about regularities in human and social behaviour it is necessary to select samples of sufficient size, from which influences may be drawn about wider population
Cross-sectional analysis	Such regularities can most easily be identified by making comparisons of variations across samples

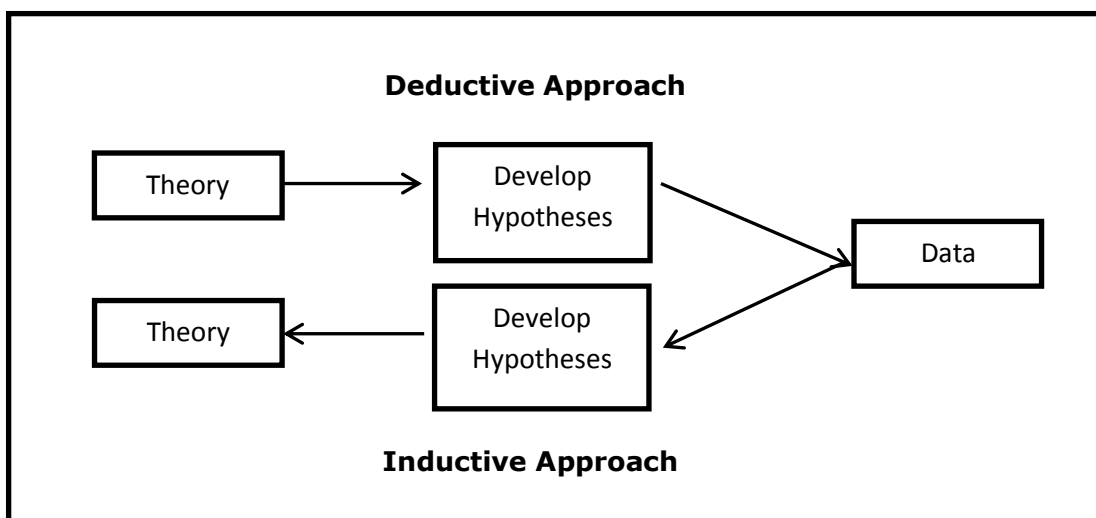
Table 5.4 Contrasting implications of positivism and social constructionism (adapted from Easterby, et al., 2008, p.59).

	<b>Positivism</b>	<b>Social constructionism</b>
The observer...	must be independent	is part of what is being observed
Human interests....	should be relevant	are the main drivers of science
Explanations....	must demonstrate causality	aim to increase general understanding of the situation
Research progresses through....	hypotheses and deductions	gathering rich data from which ideas are induced
Concepts....	need to be defined so they can be measured	should incorporate stakeholder perspective
Units and analysis....	should be reduced to simplest terms	may include the complexity of 'whole' situations
Generalization through...	statistical probability	theoretical abstraction
Sampling techniques.....	large numbers selected randomly	small number of cases chosen for specific reasons

Table 5.4 shows the contrasting implications of positivism and social constructionism. The description of the two traditions of positivism and phenomenological/social constructionism reveals their pure forms and shows that they are not only different, but also mutually exclusive (Gilbert, 2001). In terms of philosophical stance, the positivist paradigm applies a deductive approach, starting with the development of hypotheses

and data collection. The phenomenological approach follows induction, the process of finding a case, observing the relationship and finally building up a theory to cover all cases (Baroudi and Orlikowski, 1991). According to Cavana and Sekaran (2001), quantitative design begins with supporting the theory, developing the hypothesis, gathering and analysing data, and then accepting or rejecting the hypotheses. However, a phenomenological approach begins with observation of phenomena, analysing patterns and themes, formulating relationships and then developing a theory, support for the theory and hypotheses (Figure 5.1).

Figure 5.1 *Deductive and Inductive Reasoning in Research (adapted from Cavana and Sekaran, 2001).*



This research aims to examine the factors and determinants affecting employee performance satisfaction, with particular emphasis on how performance is viewed and measured in Brunei’s public sector. In detail, a set of hypotheses has been developed from the literature review and based on existing theory, which has been conceptualised in a process model that proposes causal relationships of constructs (see Chapter 4). Based on a theoretical framework, this research focuses on theory testing and verification rather than theory generation, thus embracing a deductive research approach. Consequently, drawing on the ontological and epistemological assumptions, this research largely adopts the epistemological paradigm of positivism, based on objectivism as the underlying ontological position. However, although this research predominantly takes a positivistic stance focusing on quantitative research methods, the following section gives a rationale for considering mixed methods and triangulations as beneficial concepts for this research.

### 5.2.2 Mixed Methods and Triangulations

In the previous section, a philosophy of social research was discussed. It can be concluded that the approach used by a researcher to construct theories depends on the researcher's perceptions of the social world. Quantitative research covers basic characteristics, such as emphasizing a deductive approach and theory testing (Corbetta, 2003; Cresswell, 2009), following the natural science model and positivism in particular. Thus, quantitative research rather considers social reality as being an external reality and builds on the ontological stance of objectivism (Bryman and Bell, 2007).

On the other hand, qualitative research offers key characteristics, such as putting an emphasis on words instead of numbers, taking an inductive approach and emphasizing theory generation. Moreover, qualitative research generally rejects a natural science approach, but rather considers how individuals interpret the social world, and refers to the ontological orientation of constructivism (Bryman and Bell, 2007; Cresswell, 2009). In summary, while qualitative research is concerned with "*understanding the social world through an examination of the interpretation of that world by its participants*" (Bryman and Bell, 2007, p. 401), quantitative research focuses on theory testing and "*embodies a view of social reality as an external objective reality*" (Ibid, p.28). Table 5.5 summarises the fundamental differences between quantitative and qualitative research strategies.

<b>Orientation</b>	<b>Quantitative</b>	<b>Qualitative</b>
Principal orientation to the role of theory in relation to research	Deductive; testing of theory	Inductive; generation of theory
Epistemological orientation	Natural science model, in particular positivism	Interpretivism
Ontological orientation	Objectivism	Constructionism

*Table 5.5: Fundamental differences between quantitative and qualitative research strategies (adapted from Bryman, 2008, p. 22)*

Over the years, there has been much criticism associated with each of the two methods. Quantitative methods are unlikely to be sensitive enough to capture the nuances of respondents' attitudes and behaviours (Malhotra and Birks, 2003) and tend to be very poor at tapping the subjective dimension of behaviour (Marsh, 1982). In addition, the

quantitative approach has been argued to be superficial, to use measurement processes based on artificial precision, to separate the social world from the individual and to generally neglect the complexity of the social world (Payne and Payne, 2004; Bryman and Bell, 2007). On the other hand, qualitative methods are criticised for not being scientific, biased by the researcher's subjective view, difficult to scrutinise or to repeat and restricted regarding the generalisation of results (Ibid). Qualitative approaches tend to ignore representative sampling, since their findings are based on a single case or only a few cases (Malhotra and Birks, 2003).

The general contradictions between the two approaches have led to a battle between theorists and researchers who solely advocate either the quantitative or qualitative paradigm (Tashakkori and Teddlie, 1998). What has been labelled 'paradigm wars' was based on the perspective of research purists, arguing that quantitative and qualitative methods are incompatible (Tashakkori and Teddlie, 1998, p. 11), based on the notion that "*research methods carry epistemological commitments*" and that "*quantitative and qualitative research are separate paradigms*" (Bryman and Bell, 2007, p. 643). However, several authors have criticised the dichotomisation of the two research methods, demanding a more pragmatic approach in order to overcome this battle (Tashakkori and Teddlie, 1998). Newman and Benz (1998) suggested that quantitative and qualitative approaches should not be viewed as polar opposites or dichotomies; instead, they represent different ends on a continuum. Consequently, as a way to overcome the paradigms war, the pragmatism paradigm was postulated by Howe (1988); this is mainly based on a compatibility thesis, arguing that quantitative and qualitative methods are indeed compatible. The pragmatism paradigm focuses on the solution of problems and is not committed to one paradigm, hence researchers "*are free to choose the methods, techniques, and procedures of research that best meet their needs and purposes*" (Cresswell, 2009, p. 11). In order to draw from the strengths and minimise the weaknesses of both quantitative and qualitative methods in a single research study, mixed methods were employed in the present research (Teddlie and Tashakkori, 2003; Johnson and Onwuegbuzie, 2004). Based on this paradigm, researchers are able to combine both research methods, which leads to the concept of triangulation (Tashakkori and Teddlie, 1998).

Triangulation entails using more than one method or source of data in the study of social phenomena. The term has been employed somewhat more broadly by Denzin (1970, p. 310) to refer to an approach that uses "*multiple observers, theoretical perspectives,*

*sources of data and methodologies*". When applied to the present context, it implies that "the results of an investigation employing a method associated with one research strategy are cross-checked against the results of using a method associated with the other research strategy" (Bryman and Bell, 2011, p. 631). It is an adaptation of the argument by writers such as Webb, *et al.* (1966) that confidence in the findings derived from a study using a quantitative research strategy can be enhanced by using more than one way of measuring a concept. Additionally, Jick (1979) suggested that triangulation can help to identify unexpected dimensions of a phenomena, as well as enriching the explanation of research finding, while Deshpande (1983, pp. 108-109) pointed out that the "contribution that a set of methodologies can make to one another covers all aspects of theory confirmation – research design, data collection and data analysis".

Although this research study predominantly adopts a positivistic paradigm, it acknowledges the benefits of a triangulated research approach (Deshpande, 1983) by integrating inductive investigation methods in the first phase of the research. This means that gathering qualitative data in the first phase precedes the collection of quantitative data. Qualitative research is initially conducted in order to gain a deeper understanding of the nature of the research problem and the concepts of interest (Malhotra and Birks, 2003) and to generate additional measurements by which to develop the questionnaire for the main study (Churchill, 1979; Cresswell, *et al.*, 2003). In the context of this study, the qualitative research tools used are secondary data collection and semi-structured interviews. The qualitative research is conducted with the hope that the information acquired during the interviews will give the researcher, not only a better insight and understanding of the research phenomenon, but, at the same time, acquire additional measurement items concerning the research settings. This form of research design is known as 'sequential exploratory design' (Cresswell, *et al.*, 2003). The main approach here is quantitative, while the subordinate method is qualitative. This is particularly similar to an example given by Cresswell, *et al.* (2003) where the main approach was a quantitative study based on theory testing, but with a short qualitative interview component in the data collection phase (see Figure 5.2). The qualitative data analysis has two purposes; firstly, to generate qualitative findings for the purpose of methodology design (in this case the generation of the quantitative instrument, i.e. survey questionnaire) and, secondly, to feed into the main qualitative findings of the study, as this research employed a mixed methods research. This is because a combination of qualitative and quantitative methods allows for the construction of more sensitive survey instruments, as well as a better and broader understanding of the phenomenon of interest (Cresswell, *et al.*, 2003; Cresswell, 2009).

With regards to the types of triangulation, this research applies methodological triangulation (Denzin, 1989; Tashakkori and Teddlie, 1998), which is associated with the "use of both qualitative and quantitative methods and data to study the same phenomena within the same study or in different complementary studies" (Tashakkori and Teddlie, 1998, p. 18). In particular, this research triangulates research methods for the following main reasons. Firstly, the literature review has revealed that research regarding employee performance in the public sector has always been neglected and not conducted to a great extent. Secondly, carrying out qualitative exploratory fieldwork gives further insight into subject construct, which leads to a better understanding and definition of focal construct (Cresswell, 2009). Consequently, interviewees' expertise on the subject matter provides valuable scrutiny of the developed causal process model and the proposed hypotheses of this research (Bryman and Bell, 2011).

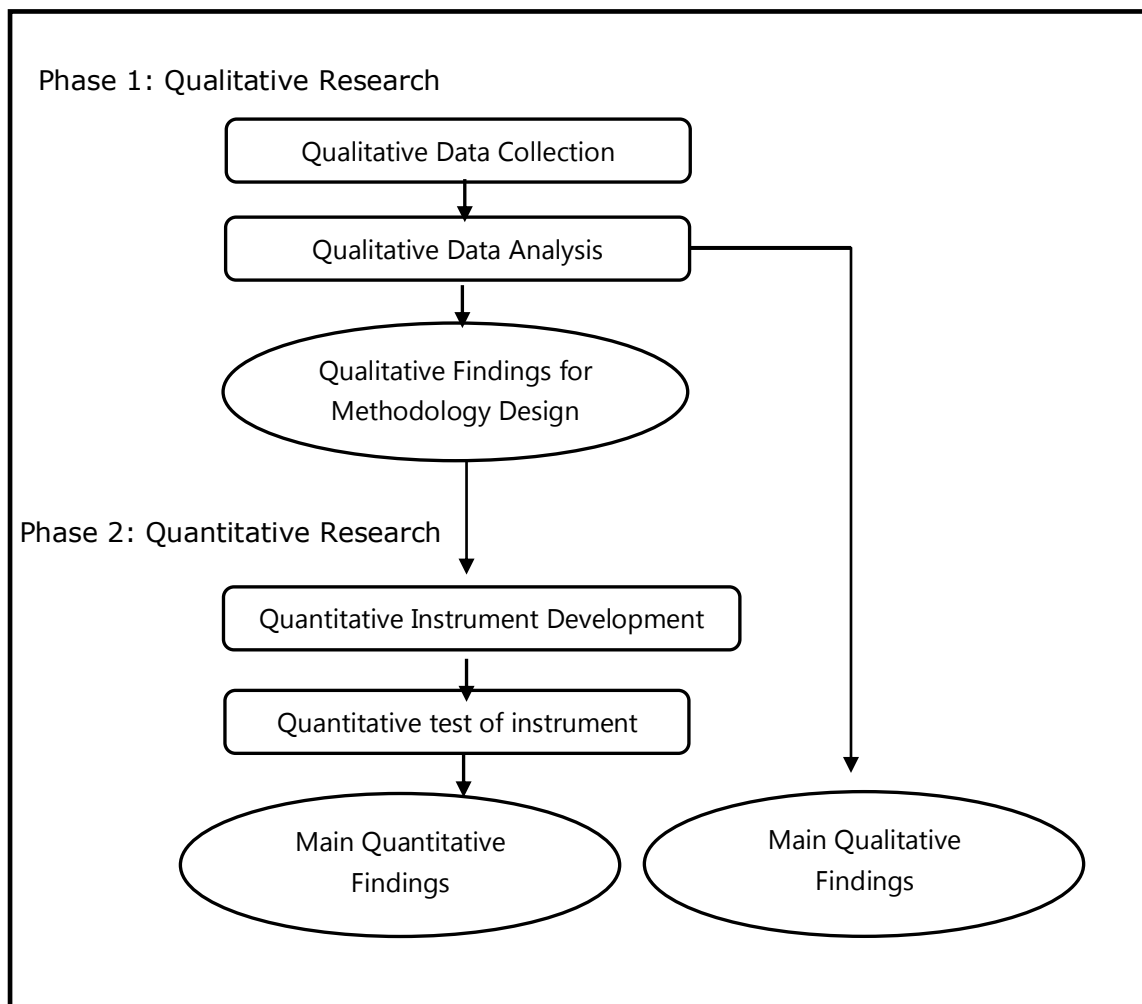


Figure 5.2: *Mixed methods procedures (modified from Cresswell, et al., 2003, p. 235, and developed by researcher for this study)*



Furthermore, qualitative data derived from participants' views is beneficial for the development of measurement scales (Bryman and Bell, 2011). In addition, qualitative data are used to reflect on the outcome of the main quantitative research, to deepen subsequent data analysis and, consequently, to enrich explanation of the findings (Cresswell, 2009; Bryman and Bell, 2011). The following section describes the research design and research methods employed in the study.

### **5.3 RESEARCH DESIGN**

A research design is developed to focus the research step-by-step. The research design is based on a research model that is rooted in the assumption that research is perceived as a sequence of closely interrelated steps, the success of each dependent on completion of those that precede it (Sarantakos, 1993). Research design can be conceived as an overall strategy which guides the data collection and analysis of a project and is the framework or plan for a study (Churchill, 1995). Based on the presented benefits of the triangulation of research methods (Despande, 1983; Cresswell, *et al.*, 2003; Bryman and Bell, 2007; Cresswell, 2009), this research study employs qualitative and quantitative methods, which leads to two research phases. The first phase, which precedes the main quantitative survey, embraces exploratory fieldwork. In detail, a case study approach in the form of secondary data collection with regards to performance appraisal in the Brunei civil service is conducted. This is then followed by conducting semi-structured interviews with experts and public sector employees in the field of performance appraisal and measurement to gain an insight into and deeper understanding of the research topic, at the same time revealing additional dimensions of the topic that might not have been derived from existing literature (Zikmund, 2003).

The second phase of the research study was associated with the main quantitative survey. This phase began with the development of the survey questionnaire, comprising of the generation of measurement items that captured the constructs included in the conceptual process model (see Chapter 4), based on existing literature as well as data from the qualitative phase. Subsequently, the measurement scales were purified using qualitative techniques. Finally, the main quantitative data collection, using a printed questionnaire, was conducted. In order to define items that measured the constructs used in this research, the procedure of multi-item scale development proposed by Churchill (1979), which integrates qualitative research as a preceding phase of item generation, was employed. The key steps within the research designed to carry out the

research process within the present study are illustrated in the form of a flow chart, as seen in Figure 5.3.

Overall, the research design process is categorised into three major steps. The first step is 'research design' and aims to establish and generate research hypotheses based on constructs relationship (see the conceptual framework in Chapter 4). The generation of hypothetical framework requires a review of published literature (Chapter 2) related to the main aim and objectives of the research study (Chapter 1). After achieving clearly stated research questions and hypotheses, the second step involves 'research methodology' (presented in the current chapter) to validate or test the relationships of the hypotheses between the constructs established. This involves a data collection process in the form of a sequential exploratory design, which means that gathering qualitative data in the first phase precedes the collection of quantitative data in the main study. The final step is then related to 'data analysis' with qualitative and quantitative study findings and analysis (Chapter 6 and 7), discussions (Chapter 8) and future recommendations (Chapter 9). The researcher's thoughts on carrying out this study are highlighted in the personal reflection in Chapter 9.

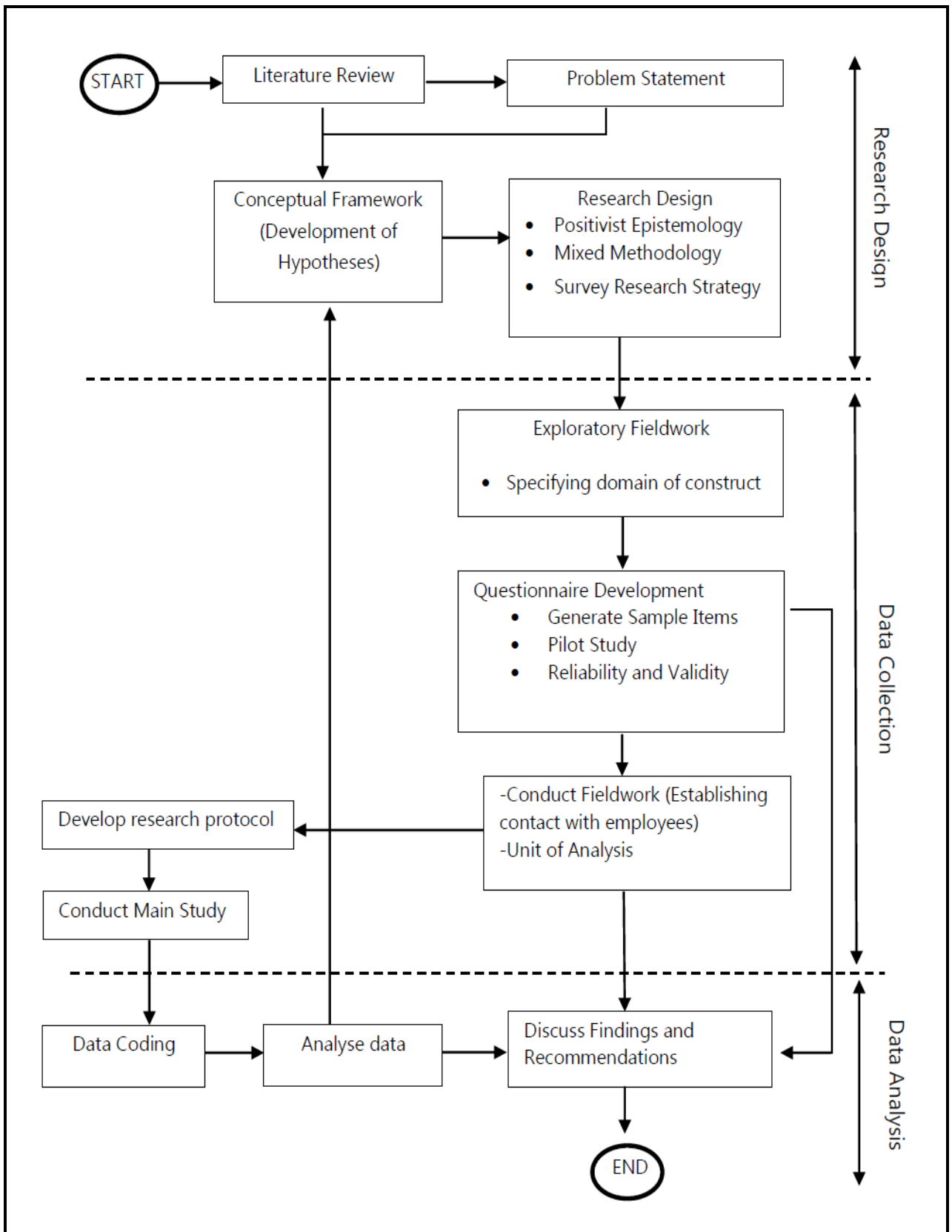


Figure 5.3 Research Design (developed by the researcher)

### 5.3.1 Planned Research Study Schedule

The tentative study schedule for this research is shown in Table 5.6, as follows:-

Table 5.6 Time Schedule for the Research Study

Research Phase	Activity	Period
Exploratory Study	- Contact with participants for their consent	December 2012
	- Conducting interviews	January 2013
	- Writing qualitative results	January 2013
Pilot Study	- Questionnaire Development/Refinement	February 2013
	- Send survey instrument to participants	February 2013
	- Data coding, entry and analysis	March 2013
	- Writing pilot study results	March 2013
Main Study	- Send survey instrument to participants	March 2013
	- Data coding, entry and cleaning	May 2013
	- Data analysis	May 2013
	- Writing main study findings	June 2013

## 5.4 QUALITATIVE RESEARCH

### 5.4.1 Reasons for Qualitative Research

To enhance the conceptual framework and increase the validity of this research, the researcher conducted an exploratory qualitative study (Cresswell, *et al.*, 2003) to inform the main quantitative study. Exploratory research is required when there is little knowledge available about the phenomenon (Churchill and Iacobucci, 2004), and in particular if there is no reliable and quantitative measures of the construct available (Patton, 2002). This is certainly the case of performance appraisal systems in the Brunei public sector where little or almost no empirical study has been done to measure the performance constructs. Based on this rationale, an exploratory phase is considered vital by the researcher for the following reasons:-

- To unfold the surrounding areas of phenomenon (Jick, 1979; Churchill, 1979) and gain a deeper understanding of the research subject, especially since performance of individual public sector employees has had little research coverage;
- To assess the relevance of the proposed research questions in a practical environment;
- To refine and revise the preliminary hypotheses and conceptual framework;
- To generate scale items for the development of the survey questionnaire (Churchill, 1979; Sarantakos, 1993);
- To increase the validity of the research findings (Deshpande, 1983) and obtain a richer explanation of research outcomes (Tashakkori and Teddlie, 1998; Cresswell, 2009).

In summary, conducting an exploratory qualitative research phase gives the researcher a better understanding of the different facets of the performance appraisal system and the perceptions of public sector organisations and employees about this topic, before embarking on the subsequent quantitative phase of the research (Cresswell, 2009).

#### **5.4.2 Research Methods for Collection of Qualitative Data**

Qualitative data are gathered in two forms, (i) secondary data through government reports, documents, circulars, database and (ii) semi-structured interviews among senior management level, as well as officer or supervisory level (Grades I, II and III) within Brunei's civil service. Secondary qualitative data are gathered by looking at the current performance appraisal system in Brunei, which include the purposes of the performance appraisal system, stages in the appraisal system and the format of appraisal, as well the main issues and challenges in the current appraisal system. As for the interviews, interview guidelines are used throughout, covering specific topics while still allowing sufficient margin for interviewees on how to reply (Bryman and Bell, 2007). The main themes of the interview cover various aspects, such as the effectiveness of the current performance appraisal system, strengths and weaknesses of the current system, types and formats of appraisal used, perceived accuracy of individual ratings, issues and challenges involved and working culture, as well as performance incentive schemes. The questions aim to address the following issues:-

- To understand people's perception on the current performance appraisal system, its strengths and weaknesses;
- To identify issues and challenges in the current appraisal system;
- To draw out key approaches for a better performance measurement systems in Brunei's public service.

Interview agenda is as in [Appendix 4](#). All interviews are to be digitally recorded and, eventually, transcribed into a word processor. The findings of the qualitative interviews are highlighted in the following chapter (Chapter 6).

### **5.5 MEASUREMENT SCALES**

This research study uses survey instruments to collect data from its targeted sample of population. The targeted samples are public sector employees working across all levels

in various ministries and departments in Brunei. The researcher uses survey method in the second phase of the research as a reliable way to collect data for specific variables of research interest (Hussey and Hussey, 1997). The survey instrument strategy is linked with the deductive approach. It is one of the most widely used strategies in the domain of business studies and employee behaviour. This strategy allows the researcher to collect data that can be analysed by descriptive inferential statistics (Saunders, *et al.*, 2009). Survey techniques to collect the data assist the establishment of a relationship between variables and help to produce the model of a relationship, which is the purpose of this study (Sekaran, 2003).

### **5.5.1 Scale Development and Validation**

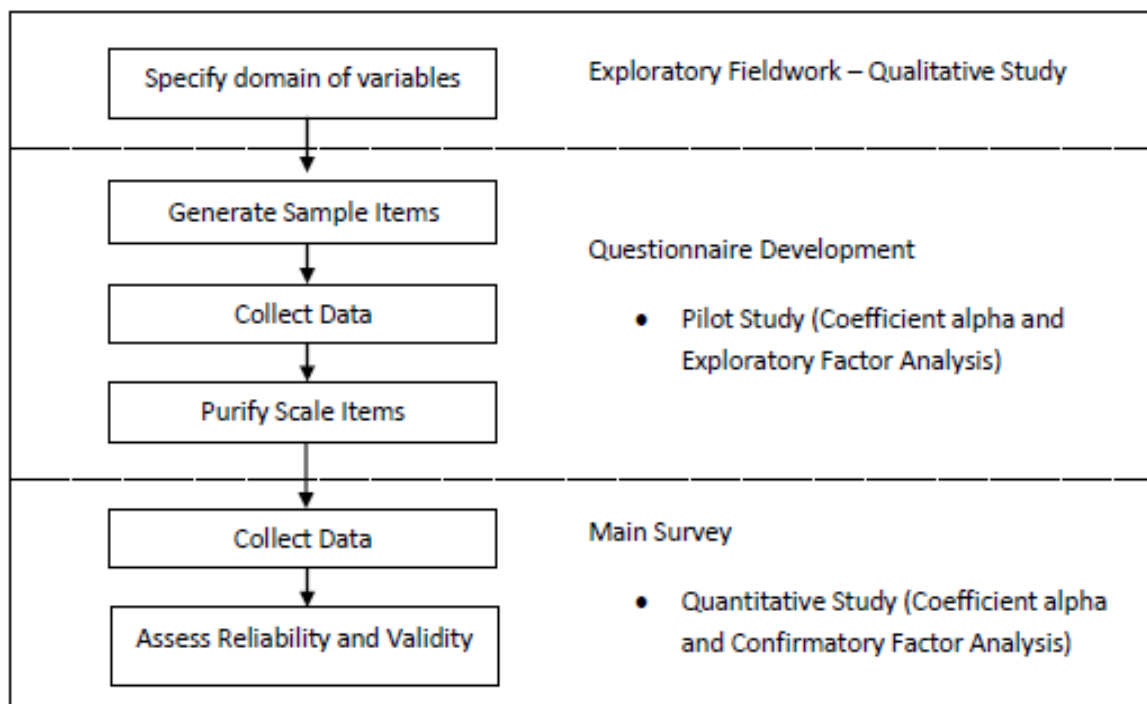
The procedure of scale development, with its issues of validity and reliability, is important because it connects the theoretical framework to empirical testing. According to DeVellis (2003, p.8), measurement scales are "*collection of items combined into composite score, and intended to reveal levels of theoretical variables not readily observable by direct means*". Systematically developing measurement scales is likely to assist the generalisability of the research findings, whereas developing measurement scales poorly can lead to wrong conclusions (DeVellis, 2003). In other words, in order to measure constructs that cannot be measured directly (latent variable), ideally scales consisting of more than one item should be developed to capture the construct. In order to systematically develop valid and reliable measurement scales, the procedure by Churchill (1979), as seen in Figure 5.4, is mainly applied in this study.

### **5.5.2 Specification of the Domain Constructs**

Providing a precise definition of the constructs that have to be measured is crucial in order to facilitate the subsequent development of measurement scales (Churchill, 1979). The first step for developing better measures is, therefore, to specify the domain of the construct or variable. This involves specifying the operational definitions and dimensions of focal variables. This step facilitates the subsequent generation of items hypothesised to belong to each dimension (Churchill, 1979). A variable refers to "*a characteristic or attribute of an individual or an organisation that can be measured or observed and that varies among the people or organisation being studied*" (Cresswell, 2009, p. 50). A variable will typically vary in two or more categories or on a continuum of scores, and can be measured or assessed on a scale. There are various types of variables, namely independent, dependent, intervening or mediating, and moderating. According to

Cresswell (2009, p. 50), 'independent variables' are those that (probably) cause, influence or affect outcomes. They are also called treatment, manipulated, antecedents or predictor variables. On the other hand, 'dependent variables' are those that depend on the independent variables and are the outcomes or results of the influence of the independent variables. Dependent variables are also known as criterion, outcome and effect variables while 'intervening or mediating variables' stand between the independent and dependent variables and mediate the effects of the independent variable on the dependent variable. Additionally, 'moderating variables' are new variables constructed by a researcher by taking one variable and multiplying it by another to determine the joint impact of both.

Figure 5.4: Procedure for Developing Measurement Scales (adapted from Churchill, 1979)



Given the aim of the present study, the literature review comprised the theoretical background of performance management and measurement practices in the public sector, as well as factors influencing performance. It looked into the current performance appraisal measures as well as perceived employee performance in evaluating individual public sector employees in Brunei by using the concept of variables. As the current performance appraisal system is considered to be flawed, the satisfaction level with the performance appraisal system is the main subject of interest. The dependent construct is

'Satisfaction with the Performance Appraisal System', while the independent constructs are: (i) Goal-Setting and the Purposes of Performance Appraisal; (ii) Alignment of Personal Objectives with Organisational Goals; (iii) Perceived Fairness of the Appraisal System; (iv) Types of Evaluation Measures; (v) Rating Scales Format; and (vi) Appraiser-Appraisee Relationship and Credibility of Appraiser. The cultural dimensions of 'power-distance' and 'in-group collectivism' act as a moderating variable, while 'pay-for-performance' is an intervening or mediating variable. Table 5.7 illustrates the main variables of the domain construct and their definitions (see also Chapter 2 and Chapter 4). On the basis of the theoretical information obtained, a proposed conceptual framework is developed.

### **5.5.3 Generation of Measurement Item**

As shown in Figure 5.4, the second step of Churchill's (1979) paradigm is to generate sample items which capture the domain as specified. According to Clark and Watson (1995), defining the initial item pool is crucial, as deficiencies in an item pool cannot be remedied by any data analytic techniques. This means generating additional measurement items by using, for example, literature searches, exploratory research, critical incidents and focus groups (Churchill, 1979). In the context of this study, in order to generate the measurement item, the researcher employed a combination of literature search and exploratory qualitative study, such as semi-structured interviews with managers, officers, supervisors and staff in the Brunei public sector. The items representing the construct were generated from existing literature wherein each item is a multi-item scale (see Table 5.8).



Table 5.7: Main variable/construct and their definition

Variable/Constructs	Definition	Main References
Performance Appraisal Satisfaction	The extent to which the employee/appraisee perceives that the performance ratings reflect those behaviours that contribute to the organisation	Kuvaas, 2006; Giles and Mossholder, 1990; Levy and Williams, 2004
Goal Setting and Purposes of Performance Appraisal	The process of deciding on something you want, planning how to get it, and then working towards the objective	Latham and Locke, 1984; Lee <i>et al</i> , 1991
Alignment of Personal Objectives with Organisational Goals	Linking the individual performance with that of the organisation goals and objectives	Kaplan and Norton (1992)
Perceived fairness of Appraisal System	Judging the justice of a decision, action or procedure that requires evaluating that decision, action or procedure judgment of balance and correctness	Greenberg (1993); Thurston (2001)
Types of Performance Evaluation Measures		
• Objective Measures	Those with numerical levels of performance target and those based on descriptive narratives anchored to physically observable conditions or events.	Chun and Rainey, 2005; Andrews <i>et al</i> , 2006; Meier and Brudney, 2002
• Subjective Measures	Those without numerical levels of performance target; quantified through officials' self-assessment and those based on descriptive narratives without being anchored to physically observable conditions or events.	Chun and Rainey, 2005; Allen and Helms, 2002; Delaney and Huselid, 1996; Dess and Robinson, 1984
• Team-based Measures	A distinguishable set of measures for two or more people who are assigned specific roles and functions to perform dynamically, independently and adaptively towards a common and valued goal/objectives/missions, who have been assigned specific roles or functions to perform.	Salas <i>et al</i> , 2002
Rating Scale Format	Scaling format to measure performance which ranges from graphic ratings scale – GRS; behaviourally anchored rating scales – BARS behavioural observation scales – BOS behavioural expectation scales – BES; behavioural description inventory – BDI and distributional measurement model - DMM.	Paterson, 1922; Smith and Kendall, 1963; Dunnette <i>et al</i> , 1968; Zedeck and Baker, 1972; Schwind, 1977; Kane and Lawler, 1979
Appraiser-Appraisee Relationship and Credibility of Appraiser	The relationship between the employee and the immediate supervisor who assess his/her performance appraisal	Gaertner and Nollen (1989)
Pay-for-Performance	Pay-for-Performance link measured the degree to which employees perceived a strong link between their performance and pay outcomes	Chiang and Jang (2008); Deckop <i>et al</i> (1999).
Dimension of Culture		
• In-Group Collectivism	The degree to which individuals express pride, loyalty, and cohesiveness in their families and organizations	House <i>et al</i> . (2004); Triandis (1995); Earley, 1993
• Power Distance	The degree to which members of an organization or society accept unequal distributions of power.	House <i>et al</i> . (2004); Dorfman and Howell, 1988; Maznevski <i>et al</i> , 1997.

Source: Developed by the researcher for the present study

Table 5.8: Constructs, Scale Item and Item Sources

Construct	Items	Item Sources
Perception of Performance Appraisal System	6	Pearce and Porter, 1986
Effects of Performance on Organisations	4	Pearce and Porter, 1986
Performance Appraisal Satisfaction	8	Pearce and Porter (1986) ; Meyer and Smith (2000)
Goal Setting and Purposes of Performance Appraisal	53	Latham and Locke, 1984; Lee <i>et al</i> , 1991
Alignment of Personal Objectives with Organisational Goals	4	Pearce and Porter, 1986
Perceived fairness of Appraisal System	10	Greenberg (1993); Thurston (2001)
Types of Performance Measures	4	Pearce and Porter, 1986
Rating Scales Format	3	Pearce and Porter, 1986
Appraiser-Appraisee Relationship and Credibility of Appraiser	6	Gaertner and Nollen, 1989
In-Group Collectivism	8	Earley, 1993
Power Distance	6	Dorfman and Howell, 1988; Maznevski <i>et al</i> , 1997
Pay-for-Performance	26	Chiang and Janq (2008); Deckop <i>et al</i> (1999).
Total number of items	138	

### 5.5.3.1 Independent Variable

#### ***Goal-setting and the purposes of performance appraisal (GSP):***

Latham and Locke (1984) developed a 53-item questionnaire aimed at measuring perceptions of goal-setting programs related to central aspects of their theoretical framework. It provided an initial basis to assess factors in organisational settings that ensures that the effects of high, specific goals are transferred into high performance. Lee, *et al.* (1991) examined the questionnaire in-depth and identified ten attributional factors of goals and the associated goal-setting process. For the purpose of this study, the item scale is reduced.

#### ***Alignment of personal objectives with organisational goals (APG):***

The researcher developed a four-item questionnaire to measure the alignment of personal objectives with organisational goals, with employee performance on a five-point Likert scale.

#### ***Perceived fairness of the appraisal system (FAS):***

The items and scales utilised in this research to measure perceived fairness of performance appraisal were based on Greenberg's (1993) four-factor model of organisational justice. The items included in the survey were initially based on 50 items proposed in Thurston's (2001) research to represent the content of ten scales designed

to measure perception of fairness and justice in a performance appraisal system. A five-point Likert scale response format was used (1995), ranging from strongly agree (1) to strongly disagree (5).

***Types of evaluation measures (TEM):***

The researcher developed a four-item questionnaire to measure the types of evaluation measures, with employee performance on a five-point Likert scale.

***Rating scales format (RSF):***

The researcher developed a three-item questionnaire to measure the rating scales format, with employee performance on a five-point Likert scale.

***Appraiser-appraisee relationship and credibility of appraiser (ARC):***

Six items with a five-point Likert scale (from Strongly Agree to Strongly Disagree,) concerning the employee's perception of appraiser and supervisor support and career advice, measured from Gaertner and Nollen (1989), were applied.

***Pay-for-Performance (PFP)***

The pay-for-performance link measured the degree to which employees perceived a strong connection between their performance and pay outcomes. Items were measured using a 26-item scale on a seven-point Likert scale, ranging from strongly agree (1) to strongly disagree (7), adapted from Deckop, *et al.* (1999) and Chiang and Jang (2008). The former demonstrated that the perceived pay-for-performance link was a more important explanatory variable than the actual pay-for-performance link.

**5.5.3.2 Dependent Variable**

***Satisfaction of Performance Appraisal System***

For satisfaction with the performance appraisal system, the researcher developed a 13-item questionnaire on a five-point Likert scale (strongly agree [1] to strongly disagree [5]), ranging from 'I have a good understanding of the appraisal criteria' and 'the present appraisal system contributes to my overall organisational effectiveness' to 'I received the appraisal outcome that I deserved', 'with my performance now, overall I am fully satisfied with my current pay' and, addressing overall satisfaction level, 'overall, I am fully satisfied with the criteria used in the current appraisal system'. These questionnaire items were applied by Pearce and Porter (1986) and have a Cronbach's alpha of 0.82.

### **5.5.3.3 Moderating Variables**

#### ***Power-Distance (PWD) and In-Group Collectivism (IGC)***

Measures concerning cultural dimensions were proposed by Hofstede (1980). Although he suggested four dimensions of culture, i.e. power-distance, individualism-collectivism, uncertainty avoidance and masculinity-femininity, the researcher adopted just two variables, power-distance and in-group collectivism (individualism-collectivism substitute). Power-distance is measured by Dorfman and Howell's (1988) six item scale. The reason behind this is plausible in that the scale proposed by Hofstede (1980) would be applicable when the study aimed to examine the cultural differences at a country level (i.e. cross-cultural), whereas the present study only requires the exploration of differences on an individual level. Additionally, the adoption of the Dorfman and Howell (1988) scale is based on the suggestion of McCoy, Everard and Jones (2005) who postulated that, when cultural dimensions are to be explored at an individual level, the Dorfman and Howell (1988) scale is the best option. As for in-group collectivism, this was assessed on a five point Likert scale (1=strongly disagree and 5=strongly agree) using the eight-item version of the questionnaire developed by Earley (1993), who adapted previous items in order to focus on the goal, task-performance and in-group aspect of this cultural value.

### **5.5.3.4 Control Variable**

#### ***Previous Employee Performance (EP)***

The actual previous performance ratings of employee working in the public sector are made available using a 5-point Likert scale (1=excellent, 5=unsatisfactory) for analysis purposes. This was recorded in the earlier part of the questionnaire. Previous employee performance (EP) served as a control variable.

## **5.6 DEVELOPMENT OF QUANTITATIVE MEASURES**

### **5.6.1 Scale Construction**

Designing a survey instrument needs both artistic as well as scientific skills and experience (Malhotra, 1999). The survey instrument, in this case a questionnaire, should be designed in such a way as to try to obtain accurate and complete information about the research problem (Malhotra, 1999). The process of developing a survey questionnaire is based on what kind of information is needed. This study adopted a positivist paradigm, which relates to the development of hypotheses and the examination of them. In order to examine the hypotheses developed for this research, a survey questionnaire is proposed for data collection. A survey instrument helps to examine the underlying attitudes of employees regarding different work characteristics

and provides insight into employee job attitude (Saunders, *et al.*, 2009). The majority of researchers have applied a positivist approach through survey questionnaires. According to Baruch and Holtom (2008, p.1140), "*survey questionnaires can provide insight into individual perception and attitudes as well as organisational policies and practices*".

Following the outcome of the exploratory fieldwork, the individual measurement scales for each of the constructs were developed and an initial version of the questionnaire was established. Although the initial total number of items in the construct was 138, it was reduced to 45, as some of the construct items, were deemed unnecessary, as in the case of goal-setting and purpose of performance appraisal, and the pay-for-performance construct. This was because some of the items were irrelevant to the current context of the study and too many items could ruin the response rate.

Based on the 45-item constructs identified so far, five-point Likert scales were used as the main scaling technique of the questionnaire. These were divided into two scales: the first type ranged from 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree to 5 = strongly agree with the second type consisting of 1 = not important at all, 2 = not so important, 3 = undecided, 4 = important and 5 = very important. A neutral position, namely "3 = undecided", was included in order to reduce uninformed responses (Hawkins and Coney, 1981) by assuring respondents not to feel compelled to commit themselves to one direction for every questionnaire item (Wang and Ahmed, 2004). The Likert scale requires participants to make decisions about their level of agreement and the level of importance for each given statement. The reason for selecting the Likert scale is twofold: it is the most common and easiest survey method for gathering information from respondents (Sekaran, 2003; Viswanathan, *et al.*, 2004). However, questions that were phrased negatively were reverse scored in the data analysis. The full description of the constructs and their measurement items with relevant scale is given in Section 5.4.3.

This research focuses on individual attitudes, behaviours and beliefs which can support management to develop a better performance appraisal system. In this regard, a conceptual model has been developed by employing various factors that may contribute to the overall satisfaction of employees with individual performance ratings. This research focuses on individual performance appraisal of such organisation factors as goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goals; perceived fairness of the appraisal system; types of evaluation measures; rating scales format; and appraiser-appraisee relationship and

credibility of appraiser. The moderating role of dimensions of culture, such as power-distance and in-group collectivism, is further investigated, as well as the mediating role of pay-for-performance on the performance appraisal satisfaction.

This is a cross-sectional study in which, to test the hypotheses, data is collected on one occasion from a stratified random sample of employees in the Brunei public sector. The questionnaire was designed in the English language ([Appendix 5](#)); however, due to the inability of certain employees who could not understand English well, a Malay version of the questionnaire was also provided ([Appendix 6](#)). Malay is the official language used in daily communication within the Brunei Government. In this study, all the dependent, independent, moderating and mediating variables have been carried out simultaneously. The survey instrument employed for this study has three sections.

Section "A" is concerned with the demography of participants ([Appendix 5](#)), providing information about participants' personal attributes. Six items, from questions 1 to 6, are concerned with demographics. These variables, age, gender, grade, length of service, present ministry and scope of work, have been applied as intervenes, which may affect the performance appraisal system.

Section "B" of the survey relates to the level of satisfaction with the current performance appraisal system used. It comprises of 15 items (Q.7 to Q.21) ([Appendix 5](#)). This section requires the respondents to assess the importance of the general criteria in the current performance appraisal system, according to their respective grades. The extent to which the respondents agree with the current performance appraisal in their organisation is explored. These questionnaire items were applied by Pearce and Porter (1986) and have a Cronbach's alpha of 0.82.

Section "C" of the survey concerns perceived employee performance and is comprised of 33 items (Q.22 to Q.54) ([Appendix 5](#)). This section is based on questions for measuring the accuracy of individual performance rating in an appraisal system, as perceived by employees. There are six independent constructs, namely goal-setting and the purposes of performance appraisal (GSP); alignment of personal objectives with organisational goals (APG); perceived fairness of the appraisal system (FAS); types of evaluation measures (TEM); rating scales format (RSF); and appraiser-appraisee relationship and

credibility of appraiser (ARC). The moderating role of dimensions of culture, such as power-distance (PWD) and in-group collectivism (IGC), are investigated, as well as the mediating role of pay-for-performance (PFP) on the satisfaction level of individual performance appraisal. All these questions illustrate employee psychological perceptions regarding their satisfaction level with individual performance ratings. These survey items were developed by Cardy, *et al.* (1987) on performance appraisal ratings with a Cronbach's alpha of 0.82; by Latham and Locke (1984) on goal-setting and the purposes of performance appraisal and by Greenberg (1993) and Thurston (2001) on the perceived fairness of the appraisal system. As for cultural dimensions, an in-group collectivism questionnaire was developed by Earley (1993) while power-distance was measured using Dorfman and Howell (1988), modified by Maznevski, *et al.* (1997). The reliability coefficients were 0.94 and 0.81, respectively. Survey items are related with the constructs (see Table 5.9) which have been used to develop the hypotheses for the study. Items adapted in the questionnaire were applied to obtain information about the constructs for analysing the hypotheses.

Table 5.9: Initial Survey Questionnaire items in relation to hypotheses and constructs

Hypothesis	Variables	Relevant Questions Items
Background Information	Demography	Q. 1 to 6
Current Performance Appraisal System	Performance Appraisal Satisfaction	Q. 7 to 20
Perceived Employee Performance	Perceived Employee Performance	Q.21
<b>H1:</b> Goal Setting and Purposes of Performance Appraisal is significantly and positively related to the satisfaction of performance appraisal system	Goal Setting and Purposes of Performance Appraisal	Q. 22 to 24
<b>H2:</b> The alignment of personal objectives with organisational goals is significantly and positively related to the satisfaction of performance appraisal system	Alignment of Personal Objectives with Organisational Goals	Q. 25 to 28
<b>H3:</b> Perceived fairness of Appraisal System is significantly and positively related to the satisfaction of performance appraisal system	Perceived fairness of Appraisal System	Q. 29 to 31
<b>H4:</b> The type of performance evaluation measures used in employee performance appraisal is significantly and positively related to the satisfaction of performance appraisal system	Types of performance measures	Q. 32 to 35
<b>H4a:</b> Objective performance appraisal is a better representation of employee performance than subjective performance appraisal	Objective measures	Q. 32 to 35
<b>H4b:</b> Subjective or traits-based performance evaluation is not a reliable indicator of employee's actual performance	Subjective measures	Q. 32 to 35
<b>H4c:</b> Team-based measures are a better representation of employee performance appraisal than individual-based measures.	Team-based measures	Q. 32 to 35
<b>H5:</b> The format of rating scales used is significantly related to the satisfaction of performance appraisal system	Rating scales format	Q. 36 to 38
<b>H6:</b> Appraiser-Appraisee Relationship and Credibility of Appraiser is significantly and positively related to the satisfaction of performance appraisal system	Appraiser-Appraisee Relationship and Credibility of Appraiser	Q. 39 to 42
<b>H7:</b> The extent of selected dimensions of culture will moderate the performance appraisal system	Dimension of Culture	Q. 43 to 51
<b>H7a:</b> In-group collectivism will moderate the satisfaction of performance appraisal system	In-group collectivism	Q. 43 to 46
<b>H7b:</b> Power distance will moderate the satisfaction of performance appraisal system	Power Distance	Q. 47 to 51
<b>H8:</b> The presence of pay-for-performances link mediates the relationship of satisfaction with performance appraisal system	Pay-for-performances	Q. 52 to 53

### 5.6.2 Pilot Study

After designing the initial version of the survey instrument in the research design, the next stage is the purification of the question within the instrument. A pilot study is usually carried out before the main data collection process in order to check its feasibility



in terms of reliability and validity, to improve the design of the instrument (Zikmund, 2003). According to Kriel (2006, p.109), pre-testing allows the testing of most aspects of the questionnaire with respect to time taken, ease of completion and ease of data collection. In similar vein, Ticehurst and Veal (2000, p.151) stressed the importance of piloting in order "*to eliminate possible weaknesses and flaws in the survey instrument*". These can be identified by testing question wording, sequence and layout, familiarity with respondents, response rate, questionnaire's completion time and analysis process. The recommended sample for piloting study is usually 10 to 30 members of the relevant population (Luck and Rubin, 1987). For the purpose of this study, the sample size,  $n$ , for the pilot study is 25. The results of the pilot study conducted are presented in detail in Chapter 7.

### **5.6.3 Reliability and Validity**

Reliability is concerned with the consistency, stability and reproducibility of measurement results (Sekaran, 2003). In the measurement of reliability, according to Field (2009, p.673), "*the scale should consistently reflect the construct it is measuring*". The internal consistency of the scales is often estimated by using the coefficient alpha (known as Cronbach's  $\alpha$ ). Theoretically, Cronbach's  $\alpha$  is concerned with "*the degree of inter-relatedness among a set of items designed to measure a single construct*" (Netemeyer, et al., 2003, p.49). According to Field (2009, p 675), a Cronbach's  $\alpha$  in a value between 0.7 and 0.8 is an acceptable value; values substantially lower indicate an unreliable scale. In similar vein, Hair, et al. (2010) asserted that a coefficient  $\alpha$  which is greater than 0.7 is highly satisfactory for most research purposes. Nevertheless, Nunnally (1978) suggested that a coefficient  $\alpha$  of 0.5 to 0.6 was satisfactory in the early stage of the research.

In the context of this research study, the researcher has followed a positivist paradigm or research, which is an efficient way to collect data for specified variables of interest (Robson, 1993). The researcher developed the survey instrument to obtain data from public sector employees across all levels in ministries and departments in Brunei. Contact numbers and addresses were provided in the covering letter, along with a questionnaire, in case a participant came across any difficulties. Assurances were given to all participants that the data would be strictly confidential and anonymity of the participants would be maintained. The reliability of survey items could be measured with the help of internal consistency methods (Hussey and Hussey, 1997). In this study, the researcher measured internal reliability with the help of Cronbach's  $\alpha$ , and this will be discussed fully in section 7.2.3 of Chapter 7.

On the other hand, validity is related to the accuracy of measures (Sekaran, 2003). Zikmund (2003, p.331) defined validity as "the ability of a scale to measure what it intended to be measured". In other words, validity determines the extent to which a construct and its corresponding measurement indicators are related, and the extent to which this set of items actually reflects the construct they were designed to measure (Hair, et al., 2010). The common types of validity are content validity and construct validity. Construct validity consists of convergent, discriminant and nomological validity. In summary, convergent validity confirms the scale is correlated with other known measures of the concept; discriminant validity ensures that the scale is sufficiently different from other similar concepts to be distinct; and nomological validity determines whether the scale demonstrates the relationships shown to exist based on theory or prior research (Ibid). Various authors' definitions of the common types of validity are summarised in Table 5.10. Validity issues for this research are addressed widely in section 7.4.2 of Chapter 7.

Types of Validity	References
<p><b>Content Validity:</b> Assessment of the degree of correspondence between the items selected to constitute a summated scale and its conceptual definition</p>	<p>Hair et al. (2010)</p>
<p><b>Construct Validity:</b> Extent to which a set of measured variables actually represent theoretical latent construct they are designed to measure. It was examined by assessing the convergent validity, discriminant validity and nomological validity.</p>	
<p><b>Convergent Validity:</b> The extent to which observed variables of particular construct share a high portion of the variance in common. Factor loadings of construct and average variance extracted estimations are used to assess the convergent validity of each construct.</p>	
<p><b>Discriminant Validity:</b> The degree to which two conceptually similar concepts are distinct. The matrix phi of construct correlations can be useful in this assessment</p>	
<p><b>Nomological Validity:</b> The test of validity that examines whether the correlations between the constructs in the measurement theory make sense.</p>	

Table 5.10: Different types of validity for this research

## **5.7 MAIN DATA COLLECTION**

After the measurement scales are developed, the main survey is conducted among public sector employees in Brunei in order to purify the measurement scale (Churchill, 1979). The data from the main survey are used to assess the validity and reliability of the studied constructs and to examine the research hypotheses. The following sections discuss the population and sample, targeted sampling and data collection procedure for the main study.

### **5.7.1 Target Population**

Population is a set of all elements (Gilbert, 2001). According to Malhotra and Birks (2003, p.358), researchers must specify the target population of the study in order to define "*who should and should not be included in the sample*" in terms of the research problems. Thus,, samples are selected from the population in an attempt to collect data that can be representative of the whole target population. A sample has been defined as "*a subset, or some part, of a larger population*" (Zikmund, 2003, p.369) and, accordingly, the procedure for sampling has been defined as "*using a small number of items or parts of a larger population to make conclusions about the whole population*" (Ibid, p.369). For this empirical study, the researcher used random sampling from public employees who were either male or female and working in all levels (Grades I, II, III, IV and V) across all twelve ministries in Brunei's civil service (see also Chapter 3 for Research Settings). Targeted employees included senior managers, managers, officers and supervisors, representing top and middle management levels, as well as staff from lower levels of the organisations, such as administrative assistants, clerical employees and manual labour jobs. The total population of employees working in Brunei's civil service is 48,932 (as of September 2011). This total population estimate is based on the employee database currently stored in Brunei's Public Service Department (Public Service Department, 2012).

### **5.7.2 Sampling Procedure**

There are two key sampling methods, probability sampling and non-probability sampling (Churchill, 1996; Churchill Jr and Iacobucci, 2004; Bryman and Bell, 2007). According to Churchill Jr and Iacobucci (2004, p. 324), probability sampling means that "*each population element has a known, non-zero chance of being included in the sample*", while, when using non-probability sampling, "*there is no way of estimating the*

*probability that any population element will be included in the sample*". In other words, when using probability sampling, the probability of each of the units on the population being selected is known, and that it is more likely leads to a representative outcome, since it keeps sampling error to a minimum (Bryman and Bell, 2007). However, with non-probability sampling, the probability of each of the units in the population being selected is not known and there is a higher chance for some units of the population to be in the sample than others (Ibid).

According to Denscombe (2002, p.12), probability sampling tends to be a superior technique for a survey study, because *"the resulting sample is likely to provide a representative cross-section of the whole"*. Moreover, a researcher is able to provide a clear statement regarding *"the accuracy and validity of the finding from the survey by referencing to the degree of error and/or bias which may be present in it as measured by well understood statistical methods"* (Baker, 2002, p. 106). The methods for probability sampling include simple random sampling, systematic sampling, stratified random sampling and cluster sampling (Bryman and Bell, 2007). In contrast, examples of non-probability based sampling techniques include convenience samples, judgement samples and quota samples (Churchill, 1996). For the purpose of this research, the researcher employed probability-based sampling, as the total population is known. The detailed descriptions of each sampling technique for probability-based sampling are shown in Table 5.11.

For the purpose of this study, the researcher adopts *stratified random sampling*, as the subject of interest is public sector employees working across all levels of salary scales in the twelve ministries of Brunei's civil service. In this case, stratification is done by ministry to ensure that all ministries are covered, since all the ministries currently use a single and standard performance appraisal system designed by Brunei's Public Service Department. By dividing the population into a series of relevant strata (in this case, by ministry) it means that the sample is more likely to be representative (Saunders, *et al.*, 2009), as each strata is represented proportionally within the sample. In the context of this research, a proportionate stratified random sampling is employed, as the size of each ministry is different. Ensuring representativeness can lead to more precision than same size simple random samples, as there is a smaller standard error for estimates (Tranmer, 2012).

Probability Sampling Techniques	Descriptions
Simple Random Sampling	Each unit of the population has an equal probability of inclusion in the sample. A researcher selects the subjects without considering any factors i.e. age or gender, and picks the sample randomly.
Systematic Sampling	Each unit of the population has an equal probability of inclusion in the sample. However, a researcher selects the subjects by considering some simple rules, for example if we are to conduct a survey in a town of 20,000 houses, a sample of 10% (i.e. 2000 houses) of total houses can be achieved by selecting every tenth house.
Stratified Random Sampling	This type of sampling occurs when the researcher divides the population into sub-groups (or strata) such that each unit belongs to a single stratum (high income, medium income, low income) and then selects units from those strata. While being interested in drawing a random sample, a researcher wants the sample that should match the parent population by controlling a makeup of the sample. For this, the sample is chosen from the different sections so that it could match and represent the parent population.
Cluster Sampling	This type of sampling occurs when the sampling unit is not an individual but a group (cluster) that occurs naturally in the population such as neighbourhoods, hospitals, schools or classrooms.

Table 5.11: Descriptions of different types of probability-based sampling techniques (source: Teddlie and Yu, 2007; Bryman and Bell, 2007)

### 5.7.3 Sample Size

The issue of sample size has been widely addressed in the literature, but the question about what can be considered a large enough sample size for the purpose of statistical analysis has not been fully resolved (Hair, *et al.*, 2010). Roscoe (1975) suggested that sample size ( $n$ ) between 30 and 500 is appropriate in most research. However, sample size and the statistical technique to be employed in data analysis, such as multiple regression analysis, confirmatory factor analysis or structural equation modelling, requires a minimum sample size. Consequently, as Reynolds, *et al.* (2003, p. 87) pointed out, the particular size of an available sample strongly determines "*the analytical techniques that can be used*". Tabachnick and Fidell (2007, p.613) stated that "*it is comforting to have at least 300 cases for factor analysis*". However, they did concede that a smaller sample size (e.g. 150 cases) could be sufficient if solutions had several high loading marker variables (above 0.80). Similarly, performing a maximum-likelihood based estimation in structural equation modelling estimations requires a minimum sample size of 200 (Hair, *et al.*, 2010). Similarly, Stevens (1996) postulated that a rigorous statistical analysis data sample should be more than 300 respondents.

Statisticians have also proved that “*the larger the absolute size of a sample, the more closely its distribution will be to the normal distribution and thus the more robust it will be*” (Saunders, *et al.*, 2009,p. 218). As mentioned previously, the total population of employees (N) working in Brunei’s civil service is 48,932 (as of September 2011). The distribution of population of civil service employees in Brunei is shown in Table 5.12. For the purpose of this research, the sample fraction used is 1% of the total population. Thus, for the purpose of the main study, the number of questionnaire to be distributed is 500.

Ministries	Population	1% of Population	Stratified Sample (*rounding off)
Prime Ministers’ Office	6,267	63	60
Ministry of Defence	2,520	25	30
Ministry of Finance	1,893	20	20
Ministry of Education	12,361	124	130
Ministry of Health	6,030	60	60
Ministry of Communication	1,760	18	20
Ministry of Development	5,033	50	40
Ministry of Home Affairs	4,798	48	40
Ministry of Religious Affairs	3,657	37	40
Ministry of Industry and Primary Resources	1,835	18	20
Ministry of Culture, Youth and Sport	1,917	19	20
Ministry of Foreign Affairs and Trade	861	9	20
Total	48,932		500

Table 5.12: *Distribution of Population and Sampling for Main Study (source: Public Service Department, Brunei, September, 2011)*

#### 5.7.4 Data Collection Procedures

The method of data collection is an integral part of any research design (Sekaran, 2003). It is the process by which the opinions of the respondents from the targeted population on a specific topic are collected (Zikmund, 2003). This ranges from interviews (face-to-face, telephone interviews or computer-assisted) to questionnaire methods (such as self-administered surveys, mail survey or online surveys) (Fowler, 1990; Sekaran, 2003; Zikmund, 2003). The research consent form and participant information sheet are shown in [Appendix 7](#). In the main study, the researcher started the procedure by contacting a randomly selected sample of the population to ask their willingness to participate in the research study. After obtaining consent from participants, a set of survey questionnaires, along with covering letters, were sent by post or e-mail. Respondents were given about six weeks to return the survey questionnaire. The survey questionnaire was designed in such a way that the respondents’ names and identities were kept confidential.

## **5.8 DATA ANALYSIS TECHNIQUES AND STATISTICAL PACKAGES FOR THE MAIN QUANTITATIVE STUDY**

The following sections briefly summarise key steps followed in order to analyse the quantitative data. A more detailed description of each statistical technique for each stage is provided in Chapter 7. The data were coded and analysed using the Statistical Package for Social Sciences, SPSS (version 20 for Windows) and the Analysis of Moment Structure (AMOS 20) software packages.

The first step consisted of the pilot study phase. A pilot study was first carried out to examine the reliability of the multi-item constructs. Cronbach's alpha scores were used to establish the reliability of scores in the pilot study (Tabachnick and Fidell, 2007; Field, 2009). The reliability of the main survey was examined and assessed with the help of confirmatory factor analysis and structural equation modelling (Hair, *et al.*, 2010). A confirmatory analysis examines the validity of constructs by measuring the extent to which a set of measured items actually reflects the construct those items are supposed to measure (ibid, 2007).

The treatment of missing data, descriptive statistics, outlier examination, multicollinearity test, normality of data and homoscedasticity for the main study of the research is presented in section 5.9 of this chapter, while exploratory factor analysis, reliability analysis tests (Cronbach's alpha) were carried out using SPSS 20 version, confirmatory factor analysis and structural equation modelling were performed using AMOS 20 and are presented in the findings chapter in Chapter 7. The detailed descriptions of each statistical test and measure is summarised in Table 5.13.

The second step of the data analysis involves scale simplification that includes testing for scale reliability and inspecting factor structures using Exploratory Factor Analysis (EFA). For testing scale reliability, Cronbach alpha coefficients and item-total correlation were used as the main criteria. Exploratory factor analysis was performed using principal component analysis (PCA) method with varimax orthogonal rotation. To assess the adequacy of the extraction and the number of factors, three criteria were used: latent root criterion, percentage of variance criterion and scree test criterion. The final step of the data analysis is related to confirmatory factor analysis and the evaluation of the structural model to examine the interrelationship between multiple independent and dependent variables is related to the satisfaction level of employee performance appraisal. In addition, the impact of demographic and cultural characteristics is also part of the analysis in this section. In this final analysis, the research hypotheses will also be

tested. For this purpose, structural equation modelling (SEM) with respect to path analysis and latent variables has been employed to test the theoretical model. The structural model is evaluated using a two-step approach (Anderson and Gerbing, 1988; Kline, 1998).

Statistics	Purpose	Remarks
Descriptive Statistics (i.e. means, frequencies, standard deviation and cronbach's alpha)	To summarise demographic information and item analysis	Analyses are performed for each variable separately so as to summarise the demographic profile of the respondents in order to get preliminary information
Chi-square statistics ( $\chi^2$ )	To diagnose the randomness of missing data	Insignificant value of the test suggests that the data may be assumed to be missing completely at random
Mahalanobis Distance ( $D^2$ )	To investigate multivariate outliers	A statistical significance test to be employed with $D^2$ measure
Kurtosis and Skewness (Kolmogorov-Smirnov and Shapiro-Wilks Test)	To examine data normality	Maximum acceptable limits of observation values each for skewness and kurtosis to be used
Pearson's coefficient ( $r$ )	To obtain preliminary information about relationships between latent factors	The $r$ value signifies the extent of the relationship from 0 (no relationship) to 1 (excellent relationship)
Levene's test	To test the homoscedasticity (homogeneity of variance) in the data	The p-value of Levene's test greater than some critical value (typically 0.05) suggests homogeneity of the variance in the data
Variation Inflation Factor (VIF) and Tolerance values	To test multi-collinearity between variable by examining the correlation matrix	VIF indicates whether a predictor has a strong relationship with other predictors. Tolerance is reciprocal of VIF.
Exploratory Factor Analysis (EFA)	To summarise information from many variables in the proposed research model into a smaller number of factors	Principal components analysis (PCA) and orthogonal model with varimax rotation employed to perform the EFA
Confirmatory Factor Analysis (CFA)	To test the specific hypotheses about structure and relations between the latent variables that underlie the data	Uni-dimensionality, reliability and validity of the constructs used in the model are assessed.
Path Analysis	To examine the hypothesized relationships between the latent constructs in the proposed model	Critical ratio estimates suggests significance of the causal path between latent constructs

Table 5.13: Data Analysis Technique and Purposes [Source: Adapted from Kline (2005); Field (2009); Hair, et al. (2010)]



Firstly, the measurement model is assessed by examining psychometric reliability and validity tests. Secondly, multiple regression technique is used to assess the structural paths and, based on the calculated path coefficients, results of hypotheses testing were determined. SEM was chosen because it is one of the most appropriate analytic approaches when dealing with issues of specifying directionality among variables of interest and generating flexibility with which to test causal relationship. SEM can account for measurement error with the inclusion of latent variables and analyse the hypothesised model of how the variables relate with one another (Kline, 1998). The main goal of the analysis would be to assess the 'model fit' - or plausibility - of the model as a whole. Plausibility is often assessed by the ability of the model to reproduce - or 'account for' - the observed variances and co-variances. These may include indices such as the use of 'comparative fit index (CFI)' and 'root mean square error of approximation (RMSEA)'. This would subsequently decide whether the model was a good or poor model fit.

## **5.9 INITIAL DATA EXAMINATION AND DATA SCREENING FOR THE MAIN QUANTITATIVE STUDY**

For the purpose of this research, initial data examination and data screening for the main quantitative study is incorporated in this methodology chapter and should be cross-referenced with the main quantitative findings in Chapter 7. As we are all well aware, the accuracy of data is important for analysing the responses from the respondents. Many issues are concerned with the accuracy of which data need to be entered into the data file. Initial data examination and data screening are vital steps before conducting any further multivariate analysis, in order to identify any potential violation of the underlying assumptions related to the application of multivariate techniques (Hair, *et al.*, 2010). Furthermore, initial data examination enables the researcher to gain deeper understanding of the collected data. Accordingly, following the procedure of Tabachnick and Fidell (2007, p.60), the following descriptive analyses were performed in this study: (i) analysis of missing values, (ii) analysis of outliers, (iii) test of normality of data distribution, (iv) test of homoscedasticity, (v) test of multicollinearity (Tabachnick and Fidell, 2007; Hair, *et al.*, 2010). All analyses were performed using SPSS version 20.0 software package.

### **5.9.1 Missing Values and Treatment**

Missing data are one of the most pervasive problems in data analysis. It is a fairly common occurrence in certain areas of research, which can affect the results of research objectives. Missing data occurs for a variety of reasons, but most commonly as a result of a long questionnaire and/or participants who accidentally miss out questions. According to Hair, *et al.* (2010), missing data may threaten the generalisability of a study's findings. Tabachnick and Fidell (2007, p.63) suggested that if only few data points, say 5% or less, are missing in a random pattern from a large data set, the problem is less serious and almost any procedure for handling missing values yields similar results.

To find the missing data for the main quantitative study, this study applied SPSS package to determine the missing value and found out that only 8 samples out of 364 samples, or 2.20%, were missing cases, which does not cause problems with the outcome of the analysis. This means that none of the cases had more than 5% missing values, which is in accordance with Hair, *et al.* (2010, p.47) who stated that missing data under 10% for an individual case or observation can generally be ignored.

### **5.9.2 Analysis of Outliers**

Outlier analysis was conducted in order to examine whether any variables had "a score very different to the rest" (Field, 2009, p.97; Hair, *et al.*, 2010). According to Hair, *et al.* (2010), an outlier is judged to be an unusually high or low value on one variable (a univariate outlier), pairs of variables (bivariate outlier) or a unique combination of values across several variables (multivariate outlier) that make an observation stand out from the others. In this study, the researcher utilised univariate and multivariate perspectives to look for a consistent pattern across perspectives to identify outliers. In line with Field (2009), the researcher detected univariate outliers by examining box-whisker (boxplot) diagrams, while Mahalanobis's distance case was applied for finding multivariate outliers to confirm their effect on the objective of the study. This research study applied a graphical method to detect the univariate outliers and determine the frequency of occurrence, as well as applying Mahalanobis's distance case for finding multivariate outliers to confirm their effect on the objectives of the study.

From the box plots, some univariate outliers (see Table 5.14) were found, which were marked with an asterisk (\*); these were extreme values (observations greater than 1.5

quartiles away from the end of the box. For identifying multivariate outliers, Mahalanobis's distance approach was used. Mahalanobis distance is the "*distance of a case from the centroid of the remaining cases where the centroid is the point created at the intersection of the means of all the variables*" (Tabachnick and Fidell, 2007, p.74). Mahalanobis distance is evaluated as  $\chi^2$  with degrees of freedom equal to the number of variables, in this case ten variables (Table 5.14) with  $p < 0.001$ . In this test, if  $D^2/df$  (degree of freedom) value exceeds 2.5 in small samples and 3 or 4 in large samples, it can be designated as possible outliers (Hair, et al., 2010). In this study, since the sample size is quite large ( $n=356$ ), the value of  $D^2/df$  equal to 4 is used as a reference.

Overall, as a result of the analysis of univariate and multivariate outliers, through examination of frequency tables and boxplots and the analysis of Mahalanobis  $D^2$  scores, some univariate outliers and multivariate outliers were detected. With regard to the univariate outliers, all extreme cases were similar enough to the remaining observations to be defined as representative of the population (Churchill and Iacobucci, 2004; Hair, et al., 2010). According to Hair et al (2010, p.67), cases should only be deleted if "*demonstrable proof indicates that they are truly aberrant and not representative of any observations in the population*". Otherwise, cases should be retained in order to increase generalisability to the entire population (Hair, et al., 2010). Since case 333 appeared seven times in the analysis for outliers, it was deleted for subsequent analysis.

Table 5.14: Univariate and Multivariate Outlier Detection Results

Univariate Outliers		Multivariate Outliers		
Cases with Standardized values exceeding 2.5 (from individual boxplot)		Cases with a value of $D^2/df$ greater than 4 (df=10)		
Variable	Case	Case	$D^2$	$D^2/df$
CAS1	278, 279, 290, 294, 298, 299, 339, 340, 349	333	80.104	8.01
CAS2	131, 309, 333, 347	340	44.348	4.43
CAS3	131, 154, 288, 290, 299, 324, 326, 339, 340, 341, 345, 346, 349	85	40.857	4.08
CAS4	131, 154, 309, 333	70	40.742	4.07
CAS5*	3, 13, 259, 316	154	40.499	4.04
CAS6*	No cases	109	40.157	4.01
CAS7*	155, 192, 259, 333			
CAS8*	No cases			
CAS9	No cases			
CAS10	137, 279, 290, 309			
CAS11	No cases			
CAS12	328, 333, 339, 354			
CAS13	290, 309, 326, 333			
GSP1	50, 155, 225, 287	No cases		
GSP2	No cases			
GSP3	52			
APG1	122, 130, 182, 288	No cases		
APG2	182, 309			
APG3	281, 322, 324, 327, 329, 337			
APG4	322, 324, 325, 333, 337, 345, 346, 349, 351, 354			
FAS1	No cases	298	70.726	7.07
FAS2	130, 298			
FAS3	No cases			
TEM1	261, 282, 322	322	43.559	4.35
TEM3	154, 279, 337, 353			
TEM4	No cases			
RSF1	109, 143, 281, 324, 326, 329, 330, 338, 345	No cases		
RSF2	109, 230, 281, 304, 326, 328, 329, 330, 340, 353			
RSF3	287, 304, 324, 343			
ARC2	176, 343	No cases		
ARC3	267, 287, 307, 322			
ARC4	No cases			
IGC1	178, 194	No cases		
IGC2	101, 132, 194, 261, 277, 287			
IGC3*	No cases			
IGC4	109, 194, 287			
PWD1	202, 211, 282, 322	No cases		
PWD2*	No cases			
PWD3*	No cases			
PWD4*	No cases			
PWD5	No cases			
PFP1	106, 186, 200, 314, 315, 326	No cases		
PFP2	122, 163, 244, 252			

[Note:

- i. Variables associated with CAS=current appraisal system; GSP= Goal-setting and the purposes of performance appraisal; APG= Alignment of personal objectives with organisational goals; FAS= Perceived fairness of the appraisal system; TEM= Types of evaluation measures; RSF= Rating scales format; ARC= Appraiser-appraisee relationship and credibility of appraiser; IGC= In-group collectivism; PWD=power-distance; and PFP=pay-for-performance
- ii. \* Items are reverse scored

Frequency of outliers (univariate and multivariate)	Cases
7	333
6	322
5	309, 324
4	109, 154, 287, 290, 326
3	131, 194, 279, 281, 298, 337, 339, 340, 345, 349
2	122, 130, 155, 182, 259, 261, 282, 288, 299, 307, 329, 343, 346, 353, 354

### 5.9.3 Test of Normality of Data Distribution

Following the examination of outliers, the normality of distribution was examined. According to Hair, et al. (2010, p.71), normality refers to "the shape of data distribution for an individual metric variable and its correspondence to the normal distribution, the benchmark for statistical methods". In the case where data distribution is non-normal, it makes statistical tests invalid. In order to test the variables for normality, graphical as well as statistical methods were applied (Tabachnick and Fidell, 2007). In order to assess normality of data distribution in the study, skewness and kurtosis, as well as Kolmogorov-Smirnov and Shapiro-Wilk techniques in SPSS, were followed by the researcher. While skewness provides information about the degree of symmetry of a distribution, kurtosis is a measure of the degree of peakedness or flatness of a distribution (Pallant, 2010). Accordingly, while a positively or negatively skewed variable has a mean not in the centre of the distribution, a distribution with a positive or negative kurtosis score is overly peaked or flat, respectively (Tabachnick and Fidell, 2007; Field, 2009). In the case of normal distribution, values for skewness and kurtosis are zero (which is a rather uncommon occurrence in the social sciences). Kolmogorov-Smirnov and Shapiro-Wilk tests are also both tests as to whether a distribution of scores is significantly different from a normal distribution. If the test is non-significant ( $p > 0.05$ ), the distribution of the sample is not significantly different than a normal distribution (i.e. it is probably normal). If, however, the test is significant ( $p < 0.05$ ), then the distribution is significantly different from a normal distribution (i.e. it is non-normal). A significant value indicates a deviation from normality, but this test is notoriously affected by large samples in which small deviations from normality yield significant results (Field, 2009).

For this study, Table 5.14a in [Appendix 8](#) shows descriptive statistics with results of skewness and kurtosis analysis while the normality assessment using Kolmogorov-Smirnov and Shapiro-Wilk tests is shown in Table 5.14b ([Appendix 9](#)).

In this study, it showed a negative skew, which indicates a clustering of scores at the high end (right-hand side of the graph). The kurtosis showed both positive and negative values, which indicates that the distribution is rather peaked with long tails (positive kurtosis) as well as relatively flat (negative kurtosis). According to Tabachnick and Fidell (2007, p.80), given reasonably large samples (in this case  $n=355$ ), skewness will not *"make a substantive difference in the analysis"* and *"kurtosis can result in an underestimate of the variance"*. In addition, results from both Kolmogorov-Smirnov and Shapiro-Wilk tests indicate that p-values in all variables is less than 0.05 (highly significant), which showed deviation from normality, thus indicating that the distributions are not normal. As the sample size in this study is considered large ( $n=355$ ), the violation of the assumptions of normality is *"quite common in large samples"* (Pallant, 2010, p.63).

#### **5.9.4 Test of Homoscedasticity**

Homoscedasticity refers to *"the assumption that dependent variable(s) exhibit equal levels of variance across the range of predictor variable(s)"* (Hair, et. al, 2010, p.74). It is one of the most important statistical assumptions that researchers should assess before performing multivariate analysis (Hair, et al.,, 2010). Homoscedasticity is desirable because the variance of dependent variable being explained in the dependence relationship should not be concentrated in only a limited range of independent values (Tabachnick and Fidell, 2007). Homoscedasticity can be measured by graphical and statistical methods (Field, 2009; Hair, et al, 2010). In research, when data are grouped, homoscedasticity is known as homogeneity, which can be measured by Levene's test of homogeneity of variances ((Tabachnick and Fidell, 2007). Thus, this study applied Levene's test of homogeneity of variance on selected variables to confirm the results of variability of dependent variables with independent variables (Table 5.15).

Table 5.15: Test of Homogeneity of Variances

Test of Homogeneity of Variances				
Selected variables	Levene Statistic	df1	df2	Sig.
Goalsetting	.483	4	350	.748
Alignment	.293	4	350	.883
Evaluation Types	1.475	4	348	.209
Rating Format	.140	4	350	.967
Pay	.659	4	350	.621

The results in the above table indicate that Levene's test is significant, as the significance values are greater than 0.05 (e.g. .748, .883, .209, .967 and .621), indicating that the variances are significantly different; thus, the assumption of homogeneity of variance has not been violated.

### 5.9.5 Test of Multicollinearity

Multicollinearity is the assessment of "the extent to which a variable can be explained by the other variables in the analysis" (Hair, et al., 2010, p.93). It is a problem related to the correlation matrix in which three or more independent variables are highly correlated (i.e. 0.90 or above) to each other (Tabachnick and Fidell, 2007; Hair, et al., 2010). The presence of a higher level of multicollinearity results in lowering the unique variance explained by each independent variable ( $\beta$ -value) and increases the shared prediction percentage (Hair, et al., 2010). This means that the presence of multicollinearity limits the size of regression value and makes it difficult to understand the contribution of each individual independent variable (Field, 2009). There are two common methods to detect multicollinearity; firstly, by inspecting the bivariate and multivariate correlation matrix and, secondly, by calculating the variance inflation factors (VIF) and tolerance impact (Tabachnick and Fidell, 2007; Field, 2009; Pallant, 2010). According to Pallant (2010, p.158), tolerance is "an indicator of how much of the variability of the specified independent is not explained by the other independent variables in the model, whereas VIF is the inverse of the tolerance effect". The larger the VIF (i.e. above 10) and the lower the tolerance (i.e. below 0.1) indicate the presence of multicollinearity (Pallant, 2010).

In the present study, bivariate correlation matrix was computed using Pearson's correlation. The results of the correlation matrix presented in Table 5.16 suggested that

none of the bivariate correlation was above 0.90 (Tabachnick and Fidell, 2007; Hair, *et al.*, 2010) for independent variables. The VIF and tolerance effect were computed using multiple regression procedure with collinearity diagnostic option, as shown in Table 5.17. The VIF values were less than 10, which revealed the absence of multicollinearity with independent variables, whilst the tolerance showed values of above 0.1 which indicated the absence of multicollinearity.

Table 5.16 Bivariate correlation

	Goalsetting	Alignment	Fairness	Evaluation Types	Rating Format	Relationship	Pay
Goalsetting	-						
Alignment	.653**	-					
Fairness	.526**	.447**	-				
Evaluation Types	.429**	.517**	.431**	-			
Rating Format	.390**	.446**	.411**	.454**	-		
Relationship	.520**	.461**	.534**	.458**	.459**	-	
Pay	.378**	.286**	.268**	.136*	.234**	.302**	-

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 5.17 Correlation Matrix with Variance Inflation Factor (VIF) and Tolerance

		Coefficients <sup>a</sup>				Collinearity Statistics		
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
Model		B	Std. Error	Beta				
1	(Constant)	20.562	2.116		9.716	.000		
	Goalsetting	1.219	.186	.171	6.571	.000	.462	2.165
	Alignment	1.060	.122	.220	8.699	.000	.486	2.058
	Fairness	1.152	.170	.155	6.789	.000	.599	1.670
	Evaluation Types	1.303	.132	.221	9.848	.000	.621	1.611
	Rating Format	.947	.134	.152	7.054	.000	.668	1.496
	Relationship	1.756	.164	.251	10.718	.000	.569	1.756
	Pay	1.017	.133	.148	7.625	.000	.828	1.208

a. Dependent Variable: Satisfaction

All initial data examinations and data screening procedures are taken before conducting the actual quantitative data analysis (see Chapter 7) in order to identify any potential



violation of the underlying assumptions related to the application of multivariate techniques (Hair, *et al.*, 2010). Following these recommended procedures, this study identified that the relevant statistical assumptions have not been violated.

## **5.10 ETHICAL CONSIDERATION**

Ethical issues play an important role when research is to be conducted among human subjects. According to Cavan (1977, p.810), ethics has been characterised as "*a matter of principled sensitivity to the rights of others*" and that "*while truth is good, respect for human dignity is better*". Newman and Brown (1995) suggested the researcher must protect human rights, guide them and supervise the interests of people. According to Christians (2000), the minimum considerations are informed consent, privacy and confidentiality, and accuracy. In this research, all ethical requirements were followed throughout all phases of the research. Before collecting data, permission was granted by the relevant organisations. The participants were asked to participate voluntarily and given the chance to withdraw from participation if they chose to do so. Participants were told that answering and returning the questionnaire assumed their consent to participate in this study. All participants were assured anonymity and confidentiality of the responses was guaranteed. Participants were not expected to write their names on the questionnaire and data was coded to ensure anonymity and confidentiality throughout the research process. Similarly, for the interviews, all the participants were assured of anonymity and confidentiality in the manner in which all the data (including interviewee name, job designation and ministry/department) were coded. All the participants' information was kept confidential and they were not described in any way that allowed them to be identified. In addition, the data collected was not used for any purpose other than as stated in the study objectives, which were aimed only for academic research for fulfilment of the requirements of a PhD thesis.

This research was conducted by the researcher, who was sponsored by the Brunei Government. Performance data of civil servants in Brunei is centrally located in the Public Service Department of Brunei and the author, who was currently working with Public Service Department, was able to obtain them through internal reports, database and documents from the Department. Access through the performance data was channelled to the Director-General of Civil Service in Brunei. Although Brunei is an Islamic country, there were no anticipated issues of women or gender as, in Brunei, any researcher is able to officially interview anyone, irrespective of their gender. Ethical issues were further guided by the University of Manchester Ethics Committee, which follows a strict ethical guideline.

## **5.11 CHAPTER SUMMARY**

This chapter provides the rationale behind the two research paradigms, the positivist and phenomenological paradigm, and the philosophical stance of both paradigms was developed. It is observed that the attitudes and behaviours of individuals relating to performance domain can be measured by a positivist approach. Many researchers in the field of human resource management and organisational behaviour have followed a positivist paradigm. Consequently, a positivist approach of the research philosophy was considered to be appropriate in this research. Data for this study was collected from employees working across all levels and in different ministries and departments in Brunei by using survey questionnaire.

Although this research study predominantly adopted a positivistic paradigm, it also acknowledged the benefits of a triangulated research approach by integrating inductive investigation methods in the first phase of the research. This meant that gathering qualitative data in the first phase preceded the collection of quantitative data. Qualitative research was initially conducted in order to gain a deeper understanding of the nature of the research problem and the concepts of interest, as well as to generate additional measurements by which to develop the questionnaire for the main study. In the context of this study, the qualitative research tools used were secondary data collection and semi-structured interviews. A combination of qualitative and quantitative methods allows for the construction of more sensitive survey instruments, as well as a better and broader understanding of the phenomenon of interest. The results of the exploratory qualitative studies were particularly helpful in generating items for the survey questionnaire.

The main study employed a survey method, as it was designed to deal more directly with the respondents' thoughts, feeling and opinions, especially when collecting information regarding attitudes and beliefs was concerned. Moreover, the survey approach offers a more accurate means of evaluating information about sample and enables the researcher to draw conclusions about generalising the findings from a sample of population. The survey instrument was structured in three sections, comprising of demography, current performance appraisal system and perceived employee performance. The dependent construct was 'satisfaction with the performance appraisal system', while the six independent constructs were 'goal-setting and the purposes of performance appraisal', 'alignment of personal objectives with organisational

goals', 'perceived fairness of the appraisal system', 'types of evaluation measures', 'rating scales format', and 'appraiser-appraisee relationship and credibility of appraiser'. The moderating roles of dimensions of culture, such as 'power-distance' and 'in-group collectivism', were investigated, as well as the mediating role of 'pay-for-performance' on the level of satisfaction of individual performance appraisal. A pilot study was conducted to measure the reliability and validity of the questionnaire before the actual main study commenced.

All aspects and practical considerations, such as sampling, measurement scales, reliability and validity, and data analysis procedures were laid out in this chapter. As for data analysis, SPSS 20 and AMOS 20 were used to analyse the quantitative data collected from the questionnaires. Analytical techniques, such as descriptive statistics, exploratory factor analysis, principal component analysis, multiple regression analysis and confirmatory factor analysis on the basis of structural equation modelling, were employed in the analysis. An assessment of model fit and testing of hypotheses were also discussed. An initial data examination and data screening procedures for the main quantitative study has also been conducted. Finally, the ethical issues were then addressed. The next chapters concern the results and findings of the qualitative and quantitative studies.

## **CHAPTER SIX: QUALITATIVE FINDINGS AND ANALYSIS**

### **6.1 INTRODUCTION**

The main purpose of this chapter is to present qualitative findings from interviews in an attempt to examine the attributes of the performance appraisal system used in evaluating employee performance in the public sector of Brunei Darussalam. The analyses presented are related to the previous research questions, as follows: *What are the antecedent variables that may affect the perception of an accurate individual performance appraisal system? How does an individual performance appraisal system relate to individual appraisal satisfaction? Does in-group collectivism and power-distance dimensions of culture moderate the accuracy of individual performance ratings? How effective is the current performance appraisal system in the public service of Brunei Darussalam with regards to measuring employee performance and achieving organisational goals?* In this study, qualitative research is first conducted in order to gain a deeper understanding of the nature of the research problem and the concepts of interest (Malhotra and Birks, 2003) and to generate additional measurements by which to develop the questionnaire for the main study (Churchill, 1979; Cresswell, *et al.*, 2003).

### **6.2 MAIN QUALITATIVE FINDINGS**

The qualitative study was conducted through fourteen semi-structured interviews and open-ended questions in order to validate a priori conceptual framework (see Figure 4.1) and revise the measurement scales to fit the context of the present research. As indicated in the methodology chapter, the interviews were conducted to gather more in-depth information on the employee performance appraisal as well as the performance management system in the public sector in Brunei Darussalam. The fourteen interviewees, identified in this chapter by code numbers [INT1-INT14] were asked questions in relation to the main themes, covering aspects such as effectiveness of the current performance appraisal system, perceived employee performance, aspects of performance management and definitions of constructs and variables with regards to the measurement of employee performance.

### 6.2.1 Profile of Interviewees

The interviewees were selected from various ministries and departments and various positions, but utilising the same standard performance appraisal system currently used in the public sector of Brunei Darussalam. The profiles of the respondents, as shown in Table 6.1, indicated that there is an equal proportion (50%) of male and female participants spanning across four ministries, namely the Prime Minister's Office, Ministry of Education, Ministry of Health and Ministry of Religious Affairs.

Interviewee (INT)	Gender	Age (years)	Position	Ministry
1	Male	51	Administrative Officer	Ministry of Education
2	Male	49	Special Duties Officer	Prime Minister's Office
3	Male	48	Administrative Officer	Prime Minister's Office
4	Female	39	Research Officer	Ministry of Education
5	Female	46	Education Officer	Ministry of Education
6	Male	41	Special Duties Officer	Prime Minister's Office
7	Female	32	Management Officer	Prime Minister's Office
8	Male	47	Technical Officer	Ministry of Education
9	Male	38	Health Promotion Officer	Ministry of Health
10	Male	29	Special Duties Officer	Ministry of Education
11	Female	42	Administrative Officer	Prime Minister's Office
12	Female	25	Research Officer	Ministry of Religious Affairs
13	Female	33	Education Officer	Ministry of Education
14	Female	35	Technical Education Officer	Ministry of Education

Table 6.1: Profiles of Respondents for Interviews

### 6.2.2 Current Performance Appraisal System

Based on the interviews conducted, the interviewees were asked about their experiences and opinions in dealing with the current performance appraisal system used by all employees working across all levels in various ministries and departments in Brunei's Civil Service. These comments helped to probe the underlying feelings, values, attitudes and perceptions of the effectiveness of the current performance appraisal system in the public sector, in particular several interviewees commented as follows:

*"My current performance was at first rated by myself and then later this grade was adjusted based on discussion with my supervisor. Not sure whether this is the correct way of assessing. The current performance was assessed based on the reference of last year's performance as the benchmark. I am not happy with the way I am being assessed now and I hope something is done to change the format of assessment. The performance appraisal currently being used is too general and does not meet the*

*actual purpose of appraisal, which is to make people better off and motivate them to work” [INT 4].*

*“The current appraisal system needs to change, for instance in terms of the assessment criteria. The assessment criteria in one department may not work in another department. For instance, the State Radio and Television Department or the Department of Government Printing may be of a different work nature, which is more involved with very prompt and immediate work action. This is in contrast with, say, the Department of Land whose daily works are more technical and specialised and which involves meticulous planning” [INT 2].*

*“In my opinion, the current appraisal is not an effective measure of performance as the appraisal criteria being assessed is very general. For instance, the current appraisal criteria being used in the appraisal form currently reflects those working in government ministries and departments in a typical office setting and environment, and not for those in the teaching profession in schools. In the teaching profession, the assessment criteria are more objective, such as the number of student passing an exam or the frequency of a teacher giving an extra class to students. Thus the current appraisal system needs to change” [INT 13].*

These interview extracts indicate that the current performance appraisal system has created some elements of dissatisfaction among employees. It appears that the appraisal system is viewed as an ineffective measure of employee performance because the criteria being measured are too general and do not actually measure employee performance. The limitations of the current appraisal system were further supported by comments made by several interviewees, as follows:-

*“The current performance appraisal system does not measure my own capability in carrying out my work in terms of commitment and effectiveness. Also, it cannot assess a person’s capability in an organisation in which they cannot do the task beyond their job scope although the task is for the benefit of the organisation” [INT 6].*

*“The current appraisal system needs to be revised as it is not effective in measuring the excellence of an employee in a particular organisation. The possibility of having a self-assessment or self-evaluation system to replace the current system needs to be considered” [INT 9].*

The issue of fairness in the performance appraisal (PA) system was also raised by several interviewees and that the appraisal system itself should be just and fair in order to present an accurate appraisal grading. Employee beliefs about fairness of performance appraisal systems are an important influence on the success of any performance appraisal system, as perceived fairness may be linked to confidence and, hence, acceptance of the performance appraisal system. Some statements by interviewees illustrate this point:

*"PA needs to be researched thoroughly, fairly and justly, and not based on personal relations. There is a need to assess the true value of the work of an individual. The assessment should not be only a month before the PA, but needs to look at the PA in a year. An assessor needs to be as honest and as fair as possible" [INT 9].*

*"PA system should be based on the person's performance for that particular year only, in which this is an honest and accurate assessment. The current appraisal system in our ministry (i.e. Ministry of Religious Affairs) is based on the tenure of service, which is not fair and accurate. For instance, say a person A is working for 15 years. His/her last three years PA is 88%, 89% and 90%, respectively. Is it accurate for person A to get 91% for his/her PA just because the previous year he/she got 90%? Thus, the PA needs to be assessed based on his/her appraisal for that particular year, and not solely based on previous year's performance" [INT 12].*

*"The PA system in this department is not satisfactory in which I was assessed based on the previous performance. Where is the fairness when my supervisor just gives me a flat C when all of the work supposedly given to an officer is passed to me, such as tendering assessment work? When referring to an officer's job description, the work is mostly done by those staff in Grade III (C3) and Grade IV (D4). A low PA grade gives impact to me like a low motivation, difficult to continue our studies or not confirmed in a particular post, though at most times I brought my work back home to finish as well as visiting sites at night time, not to mention working on weekends if asked to do so. Not only that, I have also worked during my holidays just to prepare menial tasks like a department official function. There are some staff that rarely came for work, but then was given a higher PA grade (excellent or very good). A supervisor needs to assess professionally and not based on good interrelations between supervisor and supervisee only" [INT 14].*

Dissatisfaction with performance appraisal system as a result of a flawed system or unfair judgment or treatment from supervisor may be linked to low motivation and low work commitment from the employee's side, and this should be a serious concern to senior management. The interview data indicated that the ineffectiveness of the current appraisal system may be due to the types of evaluation measures being used, which do not seem to measure the actual performance of employee, as one interviewee commented:

*"The current appraisal system does not actually measure the actual performance, in the sense that the appraiser simply put a certain percentage next to the assessed criteria without actually specifying what the criteria was supposed to measure. I remembered that there is a widely used system in the education sector called the 'rubric scoring system' in which a scoring rubric is a set of criteria or standards related to learning objectives. Just to expand further, if for instance, a teacher achieves a certain goal, he/she will be given a certain score or ratings. So in a way, the current appraisal system is subjective rather than objective as it measures people's knowledge and skills, which is sometimes hard to quantify, and not so much on the objective aspect such as student's passing rate and so on" [INT 13].*

Another interviewee even argued on the credibility of the appraiser or supervisor in the sense that the appraiser just graded their worker based on the previous year's performance, regardless of the worker's productivity for that year, as follows:

*"There were cases that the appraisal 'grade' used previous years' performance grade as their gauge in determining the performance grade; for example, if worker A's performance grade in 2010 was B, the grader just objectively graded the worker A or B automatically for the year 2012. Another example, if worker B's performance grade in 2010 was C, the grader just objectively graded the worker B a 'C' automatically for year 2011, regardless of how worker B has performed (better or worse) for that year. Is this a professional and appropriate way of grading? Or was it just plain laziness or fear of a disgruntled worker who complained their decreased grade?" [INT 10].*

The dissatisfaction of the appraisal system continued when a similar view was presented by another interviewee who argued that *"the current appraisal system is too subjective in the sense that the assessment is mixed with personal intention and not merit-based"* [INT 4]. Some interviewees argued that the flaw in the appraisal system may also be due to the fact that the assessments are based on people's traits and personalities, which are sometimes biased, as supported by comments from two interviewees.

*"A PA system needs to be upgraded in order to increase people's productivity. Needs to be based on work done objectively and not solely based on people's traits and personality. Appraisal needs to be based on quality of work in a particular organisation" [INT 7].*

*"An objective performance appraisal needs to be incorporated into the appraisal system whilst general and specific criteria need to be diversified or extended so as to include all aspects of appraisal all year round." [INT 1].*



Some interviewees even mentioned that the current appraisal system was seen to be a common value attached to the working culture in Brunei Darussalam, which does not want to create tension or disharmony among employees. As two interviewees pointed out:

*"The current appraisal does not achieve its intended targets. The current measurement of appraisal is very difficult to comprehend especially those support staff whose outcomes are difficult to measure. The current appraisal takes into account the current culture in Brunei Darussalam, which is focussed on respectability, and does not want to create tension or disharmony among employees. This has the impact of not creating a transparent and fair assessment" [INT 10].*

*"We need to revise the format of appraisal form to be in line with Bruneian culture as well as for the appraisal form to be simple, concise and easily understood by both supervisor and supervisee" [INT 11].*

In summary, by taking into account the major concerns and expectations of several employees interviewed, there is a need for a change in the current appraisal system; as two interviewees stressed:

*"I agree with the fact that the current appraisal system needs to be reviewed and changed. There is also a need to prepare a quarterly appraisal review or half-yearly appraisal review process so that a person to be assessed will be given room for continuous improvement. Guideline or appraisal review process can also be done after finishing a particular task or project in which a person is directly involved" [INT 7].*

*"The present performance appraisal system needs to change, taking into account the current trend and expectation. The appraisal system is proposed to be done annually once every six months. This is to enable a person for his/her work to be assessed easily and thus improvement can be easily attained in line with the organisational as well as personal objectives" [INT 11].*

The views raised in these interview sessions strongly emphasise that the current performance appraisal system in the public sector in Brunei Darussalam is not really an effective indicator of employee performance and that there is a need to review and change the appraisal system.

### 6.2.3 Perceived Employee Performance

This section explores the attributes and values of a future performance appraisal system, as perceived by employees. Several interviewees highlighted that, in order to have an effective performance appraisal, the system itself should be in place and implemented fully and that the appraisal system should be incorporated into the overall performance management system. Performance management is a systematic process for improving organisational performance by developing the performance of individuals and teams. As performance management incorporates five elements - (i) setting performance objectives; (ii) measuring outcomes; (iii) feedback of results; (iv) rewards linked to outcomes; and (v) amendments to objectives and activities (Storey, *et al.*, 1998) - there is a need to tie in the appraisal process with these, as shown in the views below:

*"A periodic 'follow-up' system is not done properly. If this is implemented, the quality and standard of work for every officer and staff will be enhanced. Thus, a PA system will also reflect its effectiveness and not just a mere paper exercise to obtain an annual bonus only. A supervisor needs to assess his supervisee honestly. The assessment must be based on the given task and responsibilities and not to be influenced by other factors, such as interpersonal relationship between supervisor and supervisee. Those assessed (if possible) must store their work log for that particular year as a reference if any other thing is raised" [INT 7].*

*"We should consider coaching method of performance appraisal system in which the employee evaluates his/her own performance while the appraiser serves as coach, not a critic. PA needs improvement to incorporate best practice. There is a need to have discussion between the supervisor and supervisee at the beginning of the year to establish annual work target, which is agreed mutually" [INT 10].*

*"Not all the general criteria can be measured or be given marks or percentages. An alternative way of appraising employees is for a supervisor to give a concise report on the supervisee's strengths and weaknesses. The report needs to be discussed by both parties. For those employees who are just transferred to a new department, there must be special consideration in assessing the performance. The previous performance must be known by the supervisor because, as a new employee, the person is usually given a low grade, which should not happen in the first place" [INT 5].*

*"Performance appraisal needs to be extended to performance management, in which the scope takes into account training and career development, career management, mentoring, performance monitoring and other related aspects. Performance management can assist in identifying talent for succession planning" [INT 3].*

It appears that the interviewees' perception of a better performance management system incorporate such aspects as performance monitoring and follow-up system, training and career development, career management and coaching/mentoring. Several aspects of performance management system were also highlighted, such as having an objective measure of performance with easily measurable key performance indicators (KPI), as several interviewees pointed out:

*"PA needs to measure a particular project or what is known as key performance indicator (KPI). This is especially so for those in Grade II and above in which a 'performance contract' can be established. As for those in Grade III and below, the PA can be assessed based on specified criteria. Although the current PA gives room for work plans, in fact this is done as an option and is not taken seriously as the current PA just takes into account the general criteria only, as laid out in the standard appraisal form" [INT 3].*

*"In order to achieve the objective of an ideal PA system for Brunei's civil service, it is proposed for Public Service Department, Brunei to assess the possibility of using an individual KPI in government ministries and departments" [INT 4].*

Given that employee performance is a multi-faceted and complex construct that may not be accurately captured with subjective assessments, it is thus imperative to rely on multiple objective indicators of performance that are measurable. The views of having an objective measures are in line with the concept of goal-setting and fitting the purpose of performance appraisal, which, according to one interviewee, is that *"the appraisal of employee does not only concern the mission and objectives of the organisation. It should also be based on people's commitment in managing particular official functions organised by ministries and departments, attending seminars and workshops as well as any directives from heads of department" [INT 11].*

In addition, there is also a need for personal objectives in the performance appraisal system to be aligned with organisational goals, as one interviewee indicated that *"key performance indicators for each department should be highlighted so that the objectives can be achieved easily" [INT 6].* Another interviewed summed up that *"key performance indicators for a particular organisation which monitor the effectiveness of organisational attainment should be taken into account, as well as aligning the personal objectives in the appraisal system with organisational goals" [INT 9].*

In similar vein, some respondents voiced the possibility of using a 360 degree feedback system and a self-assessment method as an alternative appraisal system, as follows: -

*"The current PA needs to take into account various parties, such as a 360 degree feedback from superiors and peers as well as subordinates, so as to create a fair appraisal. Thus, it is better for top management level, such as director/head of unit or section, to be assessed by their subordinates as well as senior management, so as to establish a true assessment (360 degree feedback)" [INT 5].*

*"There is a need to have self-assessment for employees to be appraised. If the self-assessment grade is not agreed by the assessee, a space needs to be provided in the appraisal form to give an explanation why self-assessment cannot be done. There needs to be two assessors to give objectivity in appraisal – for example, if superior A shows favouritism to his/her subordinates, superior B will give a more accurate assessment of that person. The appraisal system should aim towards the requirement for staff to improve their capacity-building, rather than attaching it to annual bonus" [INT 12].*

*"I want the future appraisal system to incorporate self-assessment appraisal in which a person assesses himself before his boss. Objective and subjective data need to be incorporated. Appraisal should be officially made at the beginning of the year, and at the end of the year (as opposed to the current appraisal system done in August or September). so that the person being appraised feels fair towards the given grade" [INT 14].*

To overcome the issue of fairness in the appraisal system, some interviewees commented on using a better format of rating scales which incorporated specific assessment criteria, as can be seen from these responses:

*"As for the assessment criteria, one of the most important assessment criteria that need to be incorporated is leadership. I remembered that there are at least twenty one attributes of a good leader. So, these attributes may need to be incorporated in order to measure leadership in a performance appraisal form. Some of the attributes of a good leader are like having initiatives, creativity, innovativeness and dynamism, as well as not being told what to do. These leadership attributes are also different for someone in a very top position, say a Minister, or someone who is the head of a department or head of a unit" [INT 2].*

*"The current appraisal system is not fair and it is difficult to decide the actual mark/grade, as most of the criteria given are not detailed, there is no guideline to assess the criteria as well as being very subjective. The future appraisal system needs to be less subjective and more objective. An objective assessment will be based on integrity of the data. For instance, how do we measure the leadership and work knowledge of an employee? What we practice today is that the assessments are mostly subjective purely to the employer. Thus, there should be a mechanism to evaluate these criteria accurately" [INT 4].*

From the excerpts above, the specific assessment criteria, as well as the format of rating scales, needs to be considered as the rating scales used may not reflect the actual indicator of performance, and it may generate inaccurate grading.

Furthermore, the relationship between appraiser and appraisee, as well as the credibility of appraiser in generating a fair and accurate appraisal, have also been highlighted by several interviewees. In particular, some interviewees emphasised a more professional relationship with their appraisers and the avoidance of any personal interest. Again, this may be related to the fact that people do not want to create disharmony or tension between them and that this is a part of the cultural settings of the organisation.

*"An appraiser needs to fully understand the current performance appraisal system and its importance, which is related to a person's career development. An appraiser needs to be professional in doing the assessment and not based on emotions to the extent that it may affect the person's promotion or opportunity to involve in in-service trainings" [INT 1].*

*"An assessor need to know who he/she is going to assess as well as how good is their behaviour in carrying out their duties. Is he/she a hardworking worker, doing their work in a good way and can be trusted, or delays their work. Do they know how to handle or use office equipment, such as photocopy machine, computers or faxes?" [INT 3].*

*"What I can gather is that most performance appraisal is not based on objectives, but rather on personal relationship between supervisor and supervisee. What I mean is that a person may not know how to operate a computer, but he/she was given a higher grade by the previous supervisor. This may be due to the fact that it may create disharmony or tension between people" [INT 8].*

In addressing the accuracy of the individual performance appraisal system, one interviewee suggested for the *"supervisor to comprehend the supervisee in giving or discussing the grade to be given. From this, the supervisee feels satisfied with the assessment and can improve the performance further. A PA needs to be fair and transparent. A supervisor can improve the performance of his supervisee through the PA system and this is what is called an effective PA system. The current appraisal system needs to be improved and it is important for the PA process to be implemented face to face and not delivered through a clerk or other officers. The head of department needs to conceal whatever is written on the appraisal form" [INT 6].*

When asked about the idea of having 'pay-for-performance' as a part of an incentive scheme, there was a mixed opinion as to how it may actually increase people's performance, especially in the context of the public sector, as several interviewees commented:

*"Yes, there should be a performance-related pay. In the private sector, for instance in banks, there is an incentive scheme where those who excel very well will have a higher bonus pay than those, say, who have normal performance ratings. This will eventually motivate the employees to work well in their undertakings. Currently, as we know, there is no differentiation as to the amount of bonus pay received by an individual if he/she achieves grade A, B or C. This may generate a complacency culture" [INT 9].*

*"I recommend for PA to be linked with an incentive scheme which is financially-based, especially for those who achieve an Excellent grade (Grade A) in their annual appraisal" [INT 7].*

*"If a performance-related pay for those in grade A is introduced, this may reduce motivation for those who achieve grade 'C' to 'F' to improve their performance, as they may think that, in practice, it is impossible to achieve such a grade (grade A). I think it is better to give incentives for those in grade 'A', 'B', 'C', and 'D' (different incentives rate for different grade). This approach may give a sustainable motivation to all employees. For those in the lower grades of 'E' and 'F', they will try their very best to get an incentive for a 'D' grade. Similarly, for a 'D' grade, he/she will try their very best to get a 'C' and so on. In general, it is very rare for a head of department/section/unit to increase a person's grade unexpectedly, say from grade 'E' to 'A'" [INT 3].*

*"Referring to the introduction of performance-related pay for those in grade A, there is a limitation if such a scheme is introduced. This is because if such scheme is introduced, there may be instances that many employees will be given an 'A' grade by their supervisor so as to get the incentives. Although, in actual fact, the person is not entitled to get such grade" [INT 5].*

### **6.3 KEY SUMMARIES FROM INTERVIEWS**

In summary, the comments gathered from the interviews revealed that the current performance appraisal system in the context of Brunei's public sector needs careful consideration and that there are several factors and constructs which are considered important in gauging a better employee performance in the public sector. It can be observed from the interview responses that there were relationships among issues across factors. First, there was a relationship between levels of satisfaction with the performance appraisal system in regards to perceived fairness. The ability of the supervisor or appraiser to make an accurate evaluation of a subordinate's performance is an important influence on fairness perceptions, thus creating satisfaction among

employees. An accurate performance appraisal grade given by the supervisor/appraiser will be viewed by the subordinate as being fair, and they will readily accept the performance appraisal system used.

Secondly, relationships can also be found between satisfaction level with performance appraisal and goal-setting, as well as alignment of personal objectives with organisational goals. Setting specific goals in line with performance appraisal may have positive effects on employee performance, as it increases a person's focus on what is to be accomplished as opposed to putting it off to a later date. In similar vein, aligning personal objectives with organisational goals may indirectly influence accuracy of individual performance and, thus, employee satisfaction and commitment. Thirdly, the format of rating scales and the types of performance evaluation measures used in the appraisal system, such as objective measures, subjective measures or even team-based measures, may also affect the satisfaction level of individual performance appraisal. Whichever measures are used, each measure may create a different measurement scale and, hence, different rating grades. For instance, in the interview sessions, interviewees were keen on having objective measures of performance, such as the use of individual key performance indicators (KPI), as an actual measure of performance. However, there is concern of how to deploy an objective measure, given the complex nature of work in the public sector and that the nature of the work cannot always be quantified.

Fourthly, the presence of pay-for-performance schemes in public sector organisations was seen either to be productive or counter-productive in improving motivation and performance within the public service. On one hand, there is the basic assumption that making a direct association between rewards and performance will enhance the level of employee commitment and eventually promote workers' productivity and organisational effectiveness. However, some interviewees commented that introducing incentives may actually deter progress and force the supervisor to give the same grade to different employees, so that he/she would get the same incentives regardless of his/her current performance. On top of all the possible relationships between the factors, there are, of course, the effects of local cultural settings, which are usually anchored in the organisation through traditions. The extent of the dimensions of culture, such as power-distance and in-group collectivism, may appear to moderate the satisfaction of a performance appraisal system, and these issues need further exploration. The following chapter deals with the quantitative approach by employing a pilot study as well as the main study findings to explore these issues further.

## **CHAPTER SEVEN: QUANTITATIVE FINDINGS AND ANALYSIS**

### **7.1 INTRODUCTION**

The main purpose of this chapter is to present empirical evidence in an attempt to examine the attributes of the performance appraisal system used in evaluating satisfaction of employee performance in Brunei's public sector of. In particular, this chapter looks at the pilot study, as well as the main quantitative findings. The analyses presented are related to the previous research questions, as follows: *What are the antecedent variables that may affect the perception of an accurate individual performance appraisal system? How does an individual performance appraisal system relate to individual appraisal satisfaction? Do in-group collectivism and power-distance dimensions of culture moderate the accuracy of individual performance ratings? How effective is the current performance appraisal system in the public service of Brunei Darussalam with regards to measuring employee performance and achieving organisational goals?* The pilot study measured the reliability of the survey questionnaire to be applied for data collection in the main study. The final section presents the data analysis results, employing SPSS analyses.

### **7.2 MEASUREMENT PURIFICATION: PILOT STUDY**

#### **7.2.1 Pilot Study Methodology and Demographics of Respondents**

Following the findings from the interviews, a pilot study in the form of a survey questionnaire was conducted in order to purify the measurement scales (de Vellis, 1991). The pilot study was conducted between February and March 2013. The survey questionnaire was distributed to twenty-five (25) participants who were selected by random sampling. The survey questionnaires were distributed in both English and Malay versions and participants were given the choice to answer either one. Malay is the official language in Brunei. The participants were public sector employees working across all grades in various ministries and departments in Brunei, thereby matching the target population for the main study. Before sending the survey questionnaire to participants, the researcher contacted them for any queries regarding the instrument and privacy. A survey questionnaire was then handed over during a personal visit or sent by post or e-mail. Addresses and contact details of participants were obtained from a personal database stored in the Public Service Department in Brunei.



Data analysis for the data generated from the pilot study was done using SPSS (version 20.0 for Windows). Ahead of the data analysis process, the questionnaire items were assigned a code in the SPSS programme for the convenience of the researcher. Descriptive statistics, including mean, standard deviation and correlation coefficients, were generated for all the study variables. The pilot study aimed to assess the key requirements through instrument purification, such as checking question wording, arrangement, layout, understanding of respondents, response rate, questionnaire duration and analysis procedure (Sekaran, 2010). Moreover, the pilot study was used to appraise the degree of content validity and reliability to confirm that the directions, questions and scale of questions were easy to comprehend (Sekaran, 2010; Pallant, 2010). Before the survey questionnaire was disseminated to potential respondents, face validity was ensured by inviting some academics and practitioners to make expert judgment on the questionnaire. A handful of survey questionnaire was sent via e-mail to local and foreign academics, as well as human resource practitioners (who held at least a Masters degree) in the Brunei public sector. As the questions within the instrument were widely used in performance appraisal literature, very few corrections were suggested by respondents, and thus ensured the accuracy of face validity.

Of the twenty-five questionnaires (25) distributed for the pilot study among public sector employees working across all grades in various ministries and departments in Brunei Darussalam, all twenty-five were returned. This showed a response rate of 100 %. The high response rate is attributed to the fact that the researcher was able to monitor the progress of questionnaires from the respondents until all respondents had fully completed the questionnaires. The researcher was able to do this due to the small sample size (n=25). The minimum time taken to complete the questionnaire was five minutes, while the maximum was thirty minutes. However, on average, participants took about 15.5 minutes to complete the survey instrument.

The demographic profiles of the respondents who took part in the pilot study (Table 6.2) show that 72% were male and the remaining 28% were female. The age group ranged from 26 to 55 years (almost half between 36-45 years old) spanning across all the five divisional grades (Grade I to Grade V), in which almost half of the respondents were officer level grade (Grade II). About three-fifths (60%) of the respondents had worked for more than 11 years and above, which means that the employees had encountered this annual performance appraisal since it was first introduced back in 1988. The

Demographic	Category	Frequencies	Valid Percentage
Gender	Male	7	28%
	Female	18	72%
Age	16-25	0	0
	26-35	6	24%
	36-45	14	56%
	46-55	5	20%
	Over 55	0	0
Grade	Grade I	1	4%
	Grade II	13	52%
	Grade III	3	12%
	Grade IV	7	28%
	Grade V	1	4%
Length of Service	1 -5 years	3	12%
	6-10 years	7	28%
	11-15 years	8	32%
	16-20 years	1	4%
	21-25 years	2	8%
	Over 26 years	4	16%
Present Ministry	Prime Minister's Office	9	36%
	Ministry of Defence	1	4%
	Ministry of Finance	0	0
	Ministry of Foreign Affairs and Trade	0	0
	Ministry of Education		
	Ministry of Health	9	36%
	Ministry of Communication	1	4%
	Ministry of Development	1	4%
	Ministry of Home Affairs	0	0
	Ministry of Religious Affairs	0	0
	Ministry of Industry and Primary Resources	3	12%
	Ministry of Culture, Youth and Sport	1	4%
Scope of Work	Management and Administration	11	44%
	Technical/Engineering		
	Legal/Advisory	1	4%
	Finance/Accountancy	0	0
	Medical and Health	3	12%
	Education/Teaching	0	0
	Research/Diplomacy	5	20%
	Economics/Planning	1	4%
	Information Technology	0	0
	Community Work	1	4%
Others	1	4%	
	2	8%	

Table 7.1: Demographic characteristics of participants for pilot study (n=25)

majority of the respondents worked with the Prime Minister's Office and the Ministry of Education, with their scope of work ranging from Management or Administration (44%),

education or teaching (20%) and finance or accountancy (12%). Table 7.1 shows the demographic characteristics of the respondents for the pilot study.

## **7.2.2 Descriptive Statistics for Pilot Study**

### **7.2.2.1 Pearson's Correlation Analysis**

Significant correlations between the scales were determined at two-levels,  $p=0.05$  and  $p=0.01$  (Table 7.2). In this pilot study, preliminary analysis showed that Pearson's correlation analysis reveals that there is a significant positive correlation of 'satisfaction with the performance appraisal system' with respect to 'alignment of personal objectives with organisational goals' ( $r=0.741$ ); 'goal-setting and purpose of appraisal' ( $r=0.737$ ); 'appraiser-appraisee relationship and credibility of appraiser' ( $r=0.681$ ); 'fairness of the appraisal system' ( $r=.675$ ); 'rating scale format' ( $r=0.633$ ), 'types of performance evaluation measures' ( $r=0.600$ ); and 'pay-for-performance' ( $r=0.458$ ). A correlation value of more than 0.6 indicates a high correlation, while a value range of 0.4 to 0.6 indicates a moderate correlation.

In addition, the constructs were generally moderately correlated with each other, with each construct having at least one correlation above 0.11. The results indicate that, overall, there are significant and positive correlations between all the constructs. A high correlation exists between 'alignment of personal objectives with organisational goals' with 'goal-setting and purpose of appraisal' ( $r=.780$ ) and 'fairness of the appraisal system' ( $r=.638$ ). It is also found that 'fairness of the appraisal system' is positively and significantly correlated with 'presence of pay-for-performance' ( $r=.601$ ) and 'goal-setting and purpose of appraisal' ( $r=0.580$ ) at the level of  $p<0.01$ . 'Goal-setting and purpose of appraisal' is also significantly and positively correlated with all other scales, except for 'types of evaluation measures'. All other constructs have moderate to low correlations ( $0.1<r<0.6$ ), with the lowest correlation existing between 'types of evaluation measures' and 'presence of pay-for-performance' ( $r=0.116$ ).

Correlations								
Variables	1	2	3	4	5	6	7	8
1.Goalsetting	-							
2.Alignment	.780**	-						
3.Fairness	.580**	.638**	-					
4.EvaluationTypes	.175	.297	.335	-				
5.RatingFormat	.454 <sup>†</sup>	.431 <sup>†</sup>	.366	.283	-			
6.Relationship	.418 <sup>†</sup>	.529**	.494 <sup>†</sup>	.381	.321	-		
7.Pay	.432 <sup>†</sup>	.333	.601**	.116	.169	.383	-	
8. Satisfaction	.737**	.741**	.675**	.600**	.633**	.681**	.458**	-

\*\* Correlation is significant at the 0.01 level (2-tailed).

<sup>†</sup> Correlation is significant at the 0.05 level (2-tailed).

Table 7.2: Correlations table for pilot study

### 7.2.3 Reliability Test

In any research study which involves multi-item scales, it is very important to assess those. The examination of multi-items scales provides information about reliability and internal consistency of the scale, which is the foremost step for factor analysis (Churchill, 1979). As mentioned in Chapter 5 (see section 5.6.3), Cronbach's alpha test is the widely applied method to determine the reliability of scale. The SPSS output indicated that the overall reliability of the questionnaires, as indicated by the overall Cronbach's  $\alpha$ , was 0.803. According to Nunnally (1978), value of alpha ( $\alpha$ ) equivalent to 0.70 and above shows that items are reliable; however, in the early stage of research, a score of 0.50 to 0.60 is also considered satisfactory. In addition, Cronbach's alpha coefficients, as well as corrected item-total correlations, were also calculated separately for each scale. The following table (Table 7.3) presents the results of the scale reliability analysis.

As for the individual Cronbach's  $\alpha$ , however, the reliability score of multi-item scales vary, ranking from 0.373 to 0.935 (Table 7.3) and these scores identified that each scale had its own internal consistency. This shows that the survey instrument has a high level of internal consistency (Field, 2009; Pallant, 2010). Corrected item-total correlation values of 0.30 and more have been suggested to be acceptable (Field, 2009). The pilot study results showed that two constructs have Cronbach's  $\alpha$  of less than 0.5 which are

Table 7.3: Results of Scale Reliability Analysis (n=25) [Note: \* Items are reverse scored]

Construct	Item	Corrected Item-Total Correlation	Cronbach's alpha if item deleted	Cronbach's alpha
Current Appraisal System	CAS1	.696	.931	.935
	CAS2	.805	.928	
	CAS3	.735	.929	
	CAS4	.821	.926	
	CAS5*	.598	.933	
	CAS6*	.674	.931	
	CAS7*	.553	.935	
	CAS8*	.646	.933	
	CAS9	.875	.925	
	CAS10	.730	.929	
	CAS11	.818	.927	
	CAS12	.565	.935	
	CAS13	.766	.928	
Goal setting and purposes of performance appraisal	GSP1	.544	.423	.647
	GSP2	.456	.552	
	GSP3	.379	.658	
Alignment of personal objectives with organisational goals	APG1	.470	.682	.718
	APG2	.737	.514	
	APG3	.616	.605	
	APG4	.283	.793	
Perceived fairness of appraisal system	FAS1	.437	.959	.813
	FAS2	.770	.631	
	FAS3	.826	.566	
Types of evaluation measures	TEM1	.490	.030	.373
	TEM2	.123	.523	
	TEM3	.389	.026	
	TEM4	.105	.446	
Rating scales format	RSF1	.513	.545	.667
	RSF2	.558	.462	
	RSF3	.408	.667	
Appraiser-appraisee relationship and credibility of appraiser	ARC1	.056	.675	.433
	ARC2	.403	.207	
	ARC3	.588	.071	
	ARC4	.116	.461	
In-group collectivism	IGC1	.181	.464	.608
	IGC2	.186	.452	
	IGC3*	.248	.256	
	IGC4	.200	.406	
Power distance	PWD1	.095	.756	.702
	PWD2*	.354	.698	
	PWD3*	.471	.652	
	PWD4*	.717	.538	
	PWD5	.670	.553	
Pay-for-performances	PFP1	.827	.355	.522
	PFP2	.657	.406	

Construct	Revised Cronbach's alpha for pilot study
Current Appraisal System	.935
Goal setting and purposes of performance appraisal	.647
Alignment of personal objectives with organisational goals	.718
Perceived fairness of appraisal system	.813
Types of evaluation measures	.523
Rating scales format	.667
Appraiser-appraisee relationship and credibility of appraiser	.675
In-group collectivism	.608
Power distance	.702
Pay-for-performances	.522

Table 7.4: Revised Cronbach's alpha values for pilot study

'appraiser-appraisee relationship and credibility of appraiser' ( $\alpha=0.433$ ) and 'types of evaluation measures' ( $\alpha=0.373$ ). From Table 7.3 above, deleting item TEM2 increases a value from 0.373 to 0.523, and deleting item ARC1 increases a value from 0.433 to 0.675. This means that the deletion of an item increases Cronbach's  $\alpha$ , which in turn means that the deletion of that item improves reliability. Therefore, "any items that result in substantially greater values of  $\alpha$  than the overall  $\alpha$  may need to be deleted from the scale to improve its reliability" (Field, 2009, p. 679). In this research study, since there is a significant increase in  $\alpha$  value for items TEM2 and ARC1, if these items were deleted, the items were also deleted in the questionnaires for the main study. Following the deletions of items TEM2 and ARC1, the new Cronbach's  $\alpha$  for 'appraiser-appraisee relationship and credibility of appraiser' is  $\alpha=0.675$  and for 'types of evaluation measures',  $\alpha=0.523$ . This means that all Cronbach's  $\alpha$  values for all the constructs to be investigated are more than 0.5; Nunnally (1978) suggested that, in the early stage of research, a score of 0.50 to 0.60 is considered satisfactory. This is consistent with this research, which was a pilot study carried out at the early stage. The revised Cronbach's alphas are shown in Table 7.4.

## **7.3 MAIN STUDY FINDINGS**

In order to achieve the research objectives, this section is concerned with analysing the state of play of the performance appraisal system in the context of Brunei's public sector as well as the perceptions of the performance appraisal system among civil servants. The main study also sought to uncover the relationship between independent and dependent variables, as well as some latent variables, in the employee performance management domain in Brunei. The main study was undertaken from March 2013 to May 2013. It was decided that, in the main study, a Malay language version of the questionnaire would be used as it was more easily understood by the employees, especially for lower level staff working in government ministries and departments.

### **7.3.1 Sampling**

The survey questionnaire was distributed by post and personal visit to 500 participants, who were selected by stratified random sampling (see section 5.7.3 in Chapter 5). Within six weeks of the data collection process, 364 completed questionnaires were collected (see Table 7.5) which resulted in a response rate of 72.8%. Data from the questionnaire were first inserted into statistical package SPSS version 20.0. To ensure that the data met the requirements of the multivariate data analysis technique, the data were subjected to initial data examination and data screening (Hair, *et al.*, 2010), which have already been discussed in the research methodology chapter in Chapter 5.

### **7.3.2 Demographic details of respondents**

#### **7.3.2.1 Background Information**

The main study was completed within eight weeks, which shows the interest of the participants in the issue being studied. As mentioned previously, the data for the main study was collected from among civil servants in Brunei. Of the 500 questionnaires distributed among public sector employees working across all grades in various ministries and departments in Brunei, 364 were returned. This showed a response rate of 72.8 %. Of all the twelve ministries in which the questionnaires were distributed, ten ministries took part and only two ministries did not return the questionnaires, namely the Ministry of Development and the Ministry of Industry and Primary Resources. Data was recorded with coding and cleaned before inferring findings. However, a few missing data were found, which were excluded, as discussed previously (section 5.91), and one

outlier was also excluded (section 5.9.2). Thus, the adjusted number of sample size, n, is 355.

The demographic profiles of the respondents who took part in the main study, comprising of age, gender, grade, length of service, present ministry, scope of work and previous performance rating grade, is shown in Table 7.5. Demographic details of participants showed that 130 participants (36.6%) were male and 112 participants (31.5%) were aged between 36 to 45 years old. The largest number of respondents comprised of Grade II level (43.1%), while top management (Grade I) comprised only 2.5% of the respondents. About one-fifth (21.7%) of the participants had length of service of five years or less, while there was an equal distribution of participants (each about 14%) with length of service of 6-10 years, 11-15 years and 16-20 years. The majority of respondents were from the Ministry of Education (34.6%), the Prime Ministers' Office (11.0%) and the Ministry of Health (11.0%). About half (50.4%) of the respondents' scope of work was in Management and Administration, followed by education/teaching (11.0%) and finance/accountancy (9.9%). The majority of the respondents had a performance appraisal grade of either 'Excellent [A]' (46.5%) or 'Very Good [B]' (46.2%), which, in total, comprised almost 92.7% of the total number of respondents. In addition, respondents found their current appraisal grade to be very appropriate (20.3%) or appropriate (62.0%).



Demographic	Category	Frequency	Valid Percentage
Gender	Male	130	36.6%
	Female	225	63.4%
Age	16-25	13	3.7%
	26-35	118	33.2%
	36-45	112	31.5%
	46-55	106	29.9%
	Over 55	6	1.7%
Grade	Grade I	9	2.5%
	Grade II	153	43.1%
	Grade III	81	22.8%
	Grade IV	80	22.5%
	Grade V	32	9.0%
Length of Service	0-5 years	77	21.7%
	6-10 years	50	14.1%
	11-15 years	50	14.1%
	16-20 years	51	14.4%
	21-25 years	60	16.9%
	Over 26 years	67	18.9%
Present Ministry	Prime Minister's Office	39	11.0%
	Ministry of Defence	27	7.6%
	Ministry of Finance	9	2.5%
	Ministry of Foreign Affairs and Trade	20	5.6%
	Ministry of Education	123	34.6%
	Ministry of Health	39	11.0%
	Ministry of Communication	19	5.4%
	Ministry of Development	0	0
	Ministry of Home Affairs	32	9.0%
	Ministry of Religious Affairs	38	10.7%
	Ministry of Industry and Primary Resources	0	0
Ministry of Culture, Youth and Sport	9	2.5%	
Scope of Work	Management and Administration	179	50.4%
	Technical/Engineering	20	5.6%
	Legal/Advisory	1	0.3%
	Finance/Accountancy	35	9.9%
	Medical and Health	11	3.1%
	Education/Teaching	39	11.0%
	Research/Diplomacy	20	5.6%
	Economics/Planning	4	1.1%
	Information Technology	16	4.5%
	Community Work	3	0.8%
	Others	27	7.6%
Last Performance Rating Grade	Excellent (A)	165	46.5%
	Very Good (B)	164	46.2%
	Good (C)	17	4.8%
	Satisfactory (D)	1	0.3%
	Need Improvement (E)	0	0
	Unsatisfactory (F)	5	1.4%
Not Assessed	3	0.8%	
Appropriateness of appraisal grade	Very appropriate	72	20.3%
	Appropriate	220	62.0%
	Undecided	39	11.0%
	Inappropriate	20	5.6%
Not appropriate at all	4	1.1%	

*Table 7.5: Demographic details of respondents for main study (n=355 and excludes missing cases and outlier)*

### 7.3.3 Summary of responses of Likert-item scale for the whole questionnaire

The responses of Likert-item scale for the whole questionnaire which consists of 43-items for the main study are highlighted in Table 7.6, as shown.

No	Questions Items	Mean	SDev	Percentages				
				S/D	D	U	A	S/A
8.	Good understanding of the appraisal criteria	4.04	.603	0.3	2.5	6.8	73.5	16.9
9.	The appraisal criteria (general) in which I am evaluated is fair	3.56	.856	1.7	10.7	24.8	55.2	7.6
10.	Current performance appraisal is related to my development	3.93	.866	1.7	7.0	9.9	59.4	22.0
11.	Present appraisal system contributes to overall organisational effectiveness.	3.65	.902	1.7	11.8	16.9	58.0	11.5
12.	The current format of rating scales used is <u>not</u> an effective measure of employee performance	4.56	.977	1.1	20.8	21.7	45.4	10.7
13.	The performance criteria used in the appraisal form does <u>not</u> actually measure my real performance	4.97	1.11	4.5	36.9	19.4	29.9	9.3
14.	Less time is spent on the appraisal process. It is treated as a mere ritual by supervisors and subordinates	4.54	1.04	1.7	21.4	19.2	43.9	13.8
15.	Current appraisal is done just for the sake of getting bonuses	3.18	1.24	10.7	43.4	9.9	24.8	11.3
16.	My current performance appraisal system is very effective	3.17	1.02	4.5	24.5	26.8	37.7	6.5
17.	In general, I received the appraisal outcome that I deserved	3.79	.918	2.0	9.9	13.5	56.9	17.7
18.	Productivity has been improving as a result of the PMS	3.19	.990	4.5	22.8	26.5	41.4	4.8
19.	Fully satisfied with my current pay	3.47	1.02	3.9	17.5	14.4	54.9	9.3
20.	Fully satisfied with criteria used in the current system	3.47	.997	3.1	17.7	16.6	53.2	9.3
22.	Important aspect of perf. management is the setting of goals	4.28	.581	0.0	1.4	2.5	62.8	33.2
23.	Important to be aware of the purpose and objectives of PMS	4.35	.564	0.0	0.0	4.5	56.1	39.4
24.	PMS should be focused on development of employees	4.40	.565	0.0	0.3	3.1	53.0	43.7
25.	Objectives need to be set at the beginning of the year	4.23	.600	0.0	1.4	8.5	58.0	32.1
26.	An effective PMS is an important indicator of the effectiveness of employee performance	4.09	.689	0.0	0.8	6.5	61.1	31.5
27.	Individual performance align to organizational mission	4.01	.732	0.0	3.4	9.6	62.0	25.1
28.	Appraisal information form measures of departmental objectives	4.23	.600	0.0	4.2	13.5	59.4	22.8
29.	Appraisal criteria should be made clear	4.45	.546	0.0	0.0	2.3	50.4	47.3
30.	The appraisal system should be fair	4.66	.541	0.0	0.8	0.8	29.9	68.5
31.	The appraisal system should be transparent	4.65	.506	0.0	0.0	1.4	32.1	66.5
32.	The type of performance evaluation measures used is important for an effective appraisal system	4.26	.658	0.3	0.8	7.9	55.2	35.8
33.	Performance measurement criteria should be subjective	4.10	.748	2.0	10.8	19.0	52.7	15.6
34.	Performance measurement criteria should be objective	3.69	.927	0.6	4.2	7.3	60.3	27.6
35.	Format of rating scale is important to measure the accuracy of individual performance	4.05	.678	0.3	2.5	11.3	63.9	22.0
36.	Format of rating scale used should be measurable	4.00	.704	0.3	1.7	17.7	58.0	22.3
37.	Perf. ratings should be based on how well I do my work	4.22	.643	0.0	2.5	4.2	61.7	31.5
38.	Appraiser should have enough time to evaluate appraisee	4.48	.564	0.0	0.8	0.8	47.6	50.7
39.	Appraiser and appraisee should jointly develop the performance goals	4.23	.632	0.0	1.4	6.5	59.2	33.0
40.	Appraisee should openly discuss his/her job problems with the appraiser	4.44	.525	0.0	0.0	1.4	52.7	45.9
41.	Group welfare is more important than individual rewards	4.07	.871	0.0	7.9	11.0	47.3	33.8
42.	Group success is more important than individual success	3.84	.953	0.6	12.1	14.9	47.9	24.8
43.	Supervisors give the same ratings to all their subordinates in order to avoid resentment and rivalries among them	3.40	1.18	15.2	43.7	14.9	19.2	7.0
44.	My performance appraisal is based on the quality and quantity of my work and not on my personality or position	4.19	.827	1.4	3.7	7.0	50.1	37.7
45.	It is important to maintain harmony within my peers, subordinates and workers in my organisation	4.50	.607	0.6	0.3	1.7	43.4	54.1
46.	Employees should not disagree with management decisions	3.00	1.15	6.8	37.2	14.1	33.2	8.7
47.	Management should make most decisions	3.14	1.14	8.2	41.4	14.1	29.6	6.8
48.	Managers should not delegate important task to employees	3.13	1.13	6.2	43.1	18.0	23.4	9.3
49.	It is frequently necessary for a manager to use authority and power when dealing with subordinates	3.54	.965	2.0	17.7	14.6	55.2	10.4
50.	There should be an incentive scheme in terms of performance-related pay for those who achieve Grade A	4.10	1.04	1.7	9.6	10.4	33.8	44.5
51.	Recognition and rewards are based on merit in my work unit	4.35	.687	0.0	1.7	7.0	45.4	45.9

**Note:**

[PMS = Performance management system; M=mean; SDev=Standard Deviation; S/D=Strongly Disagree; D=Disagree; U=Undecided; A=Agree; S/A=Strongly Agree]

The mean of each item in the questionnaire ranges from 3.00 (question item no. 46) to 4.97 (question item no.13), which indicates that most respondents were more inclined to 'undecided' and 'agree' with the various items in the questionnaire. The findings from the mean values indicate that, on average, all items had a great impact to variables affecting performance appraisal satisfaction and that most respondents agreed with the items laid out in the questionnaire.

### 7.3.4 Descriptive Statistics of Construct Items

#### 7.3.4.1 Current Appraisal System

In the current performance appraisal form used by various employees across various levels and ministries in the public sector of Brunei, there are three different performance appraisal forms each for Grade I and II, Grade III and IV, and Grade V, and the appraisal criteria consist of general and specific criteria and traits. The following sections highlight the descriptive statistics, which are the means, standard deviations (SD) and Pearson's correlation coefficients among various single-item questions in the appraisal form.

#### i. Assessment of criteria in the current appraisal form

##### Grade I and II

The means, standard deviations (SD) and Pearson's correlations are presented in Table 7.7. Mean scores ranges between 4.27 and 4.81 with a fairly small standard deviation and most constructs with a fairly low correlations with each other (below 0.4).

Criteria	Mean	SD	1	2	3	4	5	6	7	8	9
1.Job Knowledge	4.81	0.390	-								
2.Attendance	4.27	0.812	.258**	-							
3.Work Management	4.67	0.473	.405**	.383**	-						
4.Decision Making	4.48	0.632	.133	.098	.284**	-					
5.Innovativeness	4.20	0.679	.143	.248**	.290**	.395**	-				
6.Communication	4.53	0.559	.083	.159*	.321**	.389**	.384**	-			
7.Reliability	4.75	0.490	.274**	.205**	.438**	.391**	.193*	.403**	-		
8.Leadership	4.59	0.542	.164*	.285**	.331**	.450**	.348**	.258**	.305**	-	
9.Commitment	4.78	0.432	.197*	.227**	.213**	.185*	.219**	.286**	.232**	.242**	-

Table 7.7: Descriptive statistics and correlations of the single item scale for Grade I and II

Note: N=162 and \*\*correlation is significant at the 0.01 level (2-tailed) and \*correlation is significant at the 0.05 level (2-tailed)

### **Grade III and IV**

The means, standard deviations and Pearson’s correlations are presented in Table 7.8. Mean scores ranges between 4.20 and 4.69 with a fairly small standard deviation and most constructs moderately correlated in general (between 0.3 and 0.6).

Criteria	Mean	SD	1	2	3	4	5	6	7	8	9
1.Job Knowledge	4.63	.509	-								
2.Attendance	4.40	.595	.350*	-							
3.Ability to finish work on time	4.69	.477	.626*	.242*	-						
4. Work Quality	4.61	.502	.551*	.339*	.690*	-					
5. Communication	4.40	.625	.392*	.416*	.439*	.540*	-				
6.Handling office equipment	4.20	.622	.298*	.365*	.276*	.335*	.539*	-			
7.Ability to understand	4.49	.549	.406*	.501*	.460*	.558*	.603*	.508*	-		
8.Commitment	4.54	.536	.414*	.314*	.434*	.527*	.558*	.322*	.519*	-	
9.Behaviour	4.48	.602	.334*	.453*	.406*	.492*	.513*	.304*	.422*	.705*	-

Note: N=161 and all \*correlations are significant at the 0.01 level (2-tailed).

*Table 7.8: Descriptive statistics and correlations of the single item scale for Grade III and IV*

### **Grade V**

The means, standard deviations and Pearson’s correlations are presented in Table 7.9. Mean scores ranges between 3.78 and 4.59 with a small standard deviation. The inter-construct correlations are in the range of moderate (between 0.4 and 0.6) and low (below 0.4) correlations.

Criteria	Mean	SD	1	2	3	4	5	6	7	8
1.Job Knowledge	4.50	.508	-							
2.Attendance	4.25	.762	.333	-						
3.Ability to finish work on time	4.56	.504	.504**	.546**	-					
4.Handling office equipment	4.44	.504	.252	.126	.397*	-				
5.Behaviour	4.28	.772	.452**	.644**	.492**	.254	-			
6.Ability to receive instruction from superior	3.78	.975	.033	.250	-.004	-.193	.127	-		
7.Interpersonal relations	4.31	.535	.356*	.119	.404*	.194	.093	.321	-	
8. Honesty and Trustworthiness	4.59	.499	.445*	.276	.553**	.473**	.222	-.056	.491**	-

Note: N=32 and \*\*correlation is significant at the 0.01 level (2-tailed) and \*correlation is significant at the 0.05 level (2-tailed).

*Table 7.9: Descriptive statistics and correlations of the single item scale for Grade V*

When asked about the importance of the general criteria in the current appraisal form in evaluating employee actual performance, the summary of responses for employees in Grade I-Grade V are shown in Table 7.9. It is interesting to note that more than 95% of the respondents (in certain instances, 100% of respondents) across all grades thought that the general criteria in their current appraisal form were considered mostly 'important' and 'very important'.

Grades	Criteria	Not Important at all/Not so important	Important/Very important
Grades I and II	1.Job Knowledge	0%	100%
	2.Attendance	5.5%	90.1%
	3.Work Management	0%	100%
	4.Decision Making	1.9%	96.3%
	5.Innovativeness	3.1%	91.4%
	6.Communication	0.6%	98.2%
	7.Reliability	0.6%	98.7%
	8.Leadership	0%	100%
	9.Commitment	0%	100%
Grades III and IV	1.Job Knowledge	0%	98.8%
	2.Attendance	1.9%	98.2%
	3.Ability to finish work on time	0%	99.4%
	4. Work Quality	0%	99.4%
	5. Communication	1.9%	96.2%
	6.Handling office equipment	3.1%	95.1%
	7.Ability to understand	0.6%	98.7%
	8.Committment	0%	98.2%
	9.Behaviour	1.2%	96.9%
Grades V	1.Job Knowledge	0%	100%
	2.Attendance	6.3%	93.8%
	3.Ability to finish work on time	0%	100%
	4.Handling office equipment	0%	100%
	5.Behaviour	6.3%	93.7%
	6.Ability to receive instruction from superior	12.5%	75.1%
	7.Interpersonal relations	0%	96.9%
	8. Honesty and Trustworthiness	0%	100%

*Table 7.10: Summary of responses regarding the importance of the general criteria in the current appraisal form from the questionnaire*

## **ii. Perception of current appraisal system**

The means, standard deviations (SD) and Pearson's correlations for the perception of current appraisal system are presented in Table 7.11. The mean values range from 3.17 to 4.97, which suggests that most respondents agree with the items posed in the questionnaires. The Pearson's correlations among the variables are in the range of low

(less than 0.4) to moderate (0.4 to 0.6) correlations. which indicates that the items fit fairly well with each other.

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Good understanding of appraisal criteria	4.04	.603													
2. Appraisal criteria is fair	3.56	.856	.426*												
3. Current appraisal system related to my development	3.93	.866	.378*	.476*											
4. Present appraisal contributes to overall organisational effectiveness	3.65	.902	.303*	.467*	.612*										
5. Current rating scales format not an effective indicator	4.56	.977	.034	.156*	.118*	.145*									
6. Performance criteria does not measure actual performance	4.97	1.109	.166*	.273*	.212*	.245*	.361*								
7. Less time spent on appraisal process and treated as mere ritual	4.54	1.035	.020	.106*	.204*	.160*	.298*	.417*							
8. Current appraisal done just for bonus	3.18	1.241	.064	.102	.263*	.273*	.328*	.360*	.400*						
9. Current appraisal system very effective	3.17	1.017	.217*	.426*	.378*	.450*	.196*	.289*	.234*	.236*					
10. I received the outcome I deserved	3.79	.918	.276*	.354*	.343*	.238*	.066	.281*	.292*	.078	.359*				
11. Workforce productivity has improved	3.19	.990	.217*	.345*	.393*	.533*	.085	.170*	.173*	.125*	.616*	.287*			
12. Fully satisfied with current pay	3.47	1.019	.148*	.236*	.308*	.309*	.075	.093	.058	.021	.444*	.282*	.406*		
13. Fully satisfied with criteria used	3.47	.997	.316*	.511*	.477*	.506*	.179*	.281*	.170*	.175*	.624*	.374*	.572*	.544*	

Note: N=355 and \*\*correlation is significant at the 0.01 level (2-tailed) and \*at the 0.05 level (2-tailed).

Table 7.11: Descriptive statistics and correlations of the perception of the current appraisal system

When the employees were asked whether they agreed or disagreed with the following statements with respect to the perception of a better appraisal system, the summary of responses among employees was as shown in Table 7.12. The results indicate that most respondents had mixed opinions about the statements in the questionnaire which suggested their level of dissatisfaction with the current performance appraisal system.

Statement	Strongly Disagree / Disagree	Strongly Agree / Agree
1. Good understanding of appraisal criteria	2.8%	90.4%
2. Appraisal criteria is fair	12.4%	62.8%
3. Current appraisal system related to my development	8.7%	81.4%
4. Present appraisal contributes to overall organisational effectiveness	13.5%	69.5%
5. Current rating scales format not an effective indicator	21.9%	56.3%
6. Performance criteria does not measure actual performance	41.4%	39.2%
7. Less time spent on appraisal process and treated as mere ritual	23.1%	57.7%
8. Current appraisal done just for bonus	36.1%	54.1%
9. Current appraisal system very effective	29.0%	44.2%
10. I received the outcome I deserved	11.8%	74.6%
11. Workforce productivity has improved	27.3%	46.2%
12. Fully satisfied with current pay	21.4%	64.2%
13. Fully satisfied with criteria used	20.8%	62.5%

Table 7.12: Summary of responses for the perception of the current appraisal system

### 7.3.4.2 Perceived Employee Performance

The means, standard deviations (SD) and Pearson's correlations for all the related independent constructs are presented as follows:

#### i. Goal-Setting and the Purposes of Performance Appraisal

The means, standard deviations and Pearson's correlations for Goal-Setting and the Purposes of Performance Appraisal are presented in Table 7.13. The average mean is 4.34 with small standard deviation and fairly moderate correlation (in the range of 0.4).

Variable	Mean	SD	1	2	3
1. Important aspect of performance management is goal setting	4.28	.581	-		
2. Be aware of purpose and objective of performance management system	4.35	.564	.471**	-	
3. Performance management focused on employee development	4.40	.565	.456**	.487**	-

N=355 and \*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 7.13: Descriptive statistics and correlations of goal-setting and the purposes of performance appraisal



**ii. Alignment of Personal Objectives with Organisational Goals**

The means, standard deviations and Pearson’s correlations for alignment of personal objectives with organisational goals are presented in Table 7.14. The average mean is 4.14 with small standard deviation and fairly moderate correlation (between 0.3 and 0.60

Variable	Mean	SD	1	2	3	4
1. Objectives need to be set at the beginning of the year in alignment to my organisation’s strategy	4.23	.600	-			
2. An effective performance appraisal system is an important indicator of the effectiveness of employee performance	4.09	.689	.499**	-		
3. Individual performance should be align to organizational mission and objectives	4.01	.732	.415**	.435**	-	
4. Appraisal information form measures of departmental objectives	4.23	.600	.319**	.427**	.581**	-

N=355 and \*\*. Correlation is significant at the 0.01 level (2-tailed).

*Table 7.14: Descriptive statistics and correlations of the alignment of personal objectives with organisational goals*

**iii. Fairness of the Appraisal System**

The means, standard deviations and Pearson’s correlations for fairness of the appraisal system are presented in Table 7.15. The average mean is 4.59 with small standard deviation and a range of fairly moderate (about 0.4) to strong (above 0.7) correlations.

Variable	Mean	SD	1	2	3
1. The appraisal criteria in evaluating my performance should be made clear	4.45	.546	-		
2. The appraisal system should be fair	4.66	.541	.401**	-	
3. The appraisal system should be transparent	4.65	.506	.452**	.750**	-

N=355 and \*\*. Correlation is significant at the 0.01 level (2-tailed).

*Table 7.15: Descriptive statistics and correlations of the perceived fairness of the appraisal system*

#### iv. Types of Performance Evaluation Measures

The means, standard deviations and Pearson's correlations for types of performance evaluation measures are presented in Table 7.16. The average mean is 4.02 with small standard deviation and fairly low correlation values in the range of less than 0.3.

Variable	Mean	SD	1	2	3
1. The type of performance evaluation measures used in employee performance appraisal is important for an effective appraisal system	4.26	.658	-		
2. Performance measurement criteria should be objective	4.10	.748	.331**	-	
3. Performance measurement criteria should be subjective	3.69	.927	.273**	.188**	-

N=355 and \*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 7.16: Descriptive statistics and correlations of the types of performance evaluation measures

#### v. Format of Rating Scales

The means, standard deviations and Pearson's correlations for format of rating scales are presented in Table 7.17. The average mean is 4.09 with small standard deviation and fairly moderate correlation (between 0.3 and 0.5).

Variable	Mean	SD	1	2	3
1. Format of rating scale is important to measure the accuracy of individual performance	4.05	.678	-		
2. The format of rating scale used in the appraisal form should be measurable	4.00	.704	.519**	-	
3. Performance ratings should be based on how well I do my work	4.22	.643	.336**	.392**	-

N=355 and \*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 7.17: Descriptive statistics and correlations of format of rating scales

**vi. Appraiser-Appraisee Relationship and Credibility of Appraiser**

The means, standard deviations and Pearson’s correlations for appraiser-appraisee relationship and credibility of appraiser are presented in Table 7.18. The average mean is 4.38 with small standard deviation and fairly low to moderate correlation.

Variable	Mean	SD	1	2	3
1. Appraiser should have enough time to observe and evaluate appraisee	4.48	.564	.183**	-	
2. Appraiser and appraisee should jointly develop the performance goals	4.23	.632	.265**	.515**	-
3. Appraiser should openly discuss his/her job problems with the appraiser	4.44	.525	.166**	.439**	.545**

N=355 and \*\*. Correlation is significant at the 0.01 level (2-tailed).

*Table 7.18: Descriptive statistics and correlations of the appraiser-appraisee relationship and credibility of appraiser*

**vii. In-Group Collectivism**

The means, standard deviations and Pearson’s correlations for in-group collectivism are presented in Table 7.19. The average mean is 3.88 with small standard deviation and a low to fairly moderate correlation.

Variable	Mean	SD	1	2	3	4
1. Group welfare is more important than individual rewards	4.07	.871	-			
2. Group success is more important than individual success	3.84	.953	.553**	-		
3. Supervisors give the same ratings to all their subordinates in order to avoid resentment and rivalries among them	3.40	1.177	.000	-.022	-	
4. My performance appraisal is based on the quality and quantity of my work and not on my personality or position	4.19	.827	.149**	.186**	.132*	-

N=355 and \*\* correlation is significant at the 0.01 level (2-tailed) and \* correlation is significant at the 0.05 level (2-tailed).

*Table 7.19: Descriptive statistics and correlations of in-group collectivism variables*

**viii. Power-Distance**

The means, standard deviations and Pearson’s correlations for Power-Distance are presented in Table 7.20. The average mean is 3.46 with a relatively small standard deviation and a fairly low correlation.

Variable	Mean	SD	1	2	3	4
1. It is important to maintain harmony within my peers, subordinates and workers in my organisation	4.50	.607	-			
2. Employees should not disagree with management decisions	3.00	1.152	-.103	-		
3. Management should make most decisions without consulting subordinates	3.14	1.135	.014	.476**	-	
4. Managers should not delegate important task to employees	3.13	1.127	.051	.295**	.494**	-
5. It is frequently necessary for a manager to use authority and power when dealing with subordinates	3.54	.965	.050	-.336**	-.344**	-.261**

N=355 and \*\* correlation is significant at the 0.01 level (2-tailed).

Table 7.20: Descriptive statistics and correlations of power-distance variables

**ix. Pay-for-Performance**

The means, standard deviations and Pearson’s correlations for pay-for-performance are presented in Table 7.21. The average mean is 4.23 with small standard deviation and a fairly low correlation.

Variable	Mean	SD	1	2
1. On top of the current appraisal system which is linked to annual bonus, there should be an incentive scheme in terms of performance-related pay for those who acheive Grade A (Excellent) in their annual appraisal	4.10	1.038	-	
2. Recognition and rewards are based on merit in my work unit	4.35	.687	.345**	-

N=355 and \*\* correlation is significant at the 0.01 level (2-tailed).

Table 7.21: Descriptive statistics and correlations for pay-for-performance

### 7.3.4.3 Mean Ranking Score of Constructs

Table 7.22 is an illustration of the mean and standard deviations associated with each of the seven constructs. The mean score ranking of each construct is shown in the last column. The summated *means* for the seven constructs that measured performance appraisal satisfaction (see Table 7.22) indicate average scores that lie between *agree* and *strongly agree* on the Likert scale for all the seven constructs. *Fairness of the appraisal system* (mean=4.59) was ranked highest, followed by *appraiser-appraisee relationship and credibility of appraiser* (mean=4.38), *goal-setting and the purposes of performance appraisal* (mean=4.34), *pay-for-performance* (mean=4.23), *alignment of personal objectives with organisational goals* (mean=4.14), *format of rating scales* (mean=4.09) with *types of performance evaluation measures* (mean=4.02) trailing the list. These findings denote that, amongst these seven construct factors, *fairness of the appraisal system* had the greatest impact on performance appraisal satisfaction with *types of performance evaluation measures* exerting the least impact.

Aspects/Variables	No. of Items	Mean	SD	Mean Rankings
Goal Setting and Purposes of Performance Appraisal	3	4.34	.714	3
Alignment of personal objectives with organizational goals	4	4.14	.654	5
Fairness and Clarity of Appraisal System	3	4.59	.630	1
Types of Evaluation Measures (such as objective or subjective performance appraisal or team-based appraisal)	3	4.02	.764	7
Rating Scales Format	3	4.09	.687	6
Appraiser-Appraisee Relationship	3	4.38	.917	2
Presence of Pay-for- performance	2	4.23	.821	4

Table 7.22: Variables, number of items, means, standard deviations and mean ranking for the appraisal satisfaction sub-scales

## 7.4 FACTOR LOADING AND DATA ANALYSIS

Factor analysis techniques were used for data reduction, which identifies groups or clusters of variables. It involves the underlying dimensions (known as factor or latent variables) at which variables seem to group together in a meaningful way. This can be done by looking for variables that correlate highly with a group of variables, but do not correlate highly with a group of other variables outside the group (Field, 2009, p.628).

Factor analysis provides the tools for analysing the structure of interrelationships (correlations) among large number of variables, in this case a questionnaire response, by defining sets of variables that are highly interrelated, known as factors (Hair, *et al.*, 2010, p.94). The justification of using factor analysis is because the independent variables are made up of continuous observed variables, while the dependent variable of interest is made up of continuous latent variables. By reducing a dataset from a group of interrelated variables to a smaller set of factors, factor analysis achieves parsimony by explaining the maximum amount of common variance in a correlation matrix using the smallest number of exploratory constructs (Field, 2009, p.629). Different techniques, such as exploratory or confirmatory factor analysis, can be used to achieve this purpose. Both are useful in searching for structure among a set of variables or as a data reduction method. However, exploratory factor analysis (EFA) techniques “take what the data give you” and do not set any a priori constraints on the estimation of components or the number of components to be extracted.

On the other hand, confirmatory factor analysis (CFA) technique involves grouping variables together on a factor or the precise number of factors for hypothesis testing (Hair. *et al.*, 2010, p.95). The purpose of EFA is to explore the data and provide information to the researcher about the number of possible factors that best represent the data, whereas the purpose of the CFA is to validate or confirm the measurement factors that exist within a set of variables involved in the theoretical model (Hair, *et al.*, 2010). The CFA is often performed through structural equation modelling. For the purpose of this research study, an initial exploratory factor analysis was employed to take data in a group for a factor and then apply confirmatory factor analysis techniques for the same dataset to confirm the group of measurement variables related to a factor for examining the hypotheses.

#### **7.4.1 Exploratory Factor Analysis**

In this study, exploratory factor analysis (EFA) was performed to provide the researcher with information about how many factors best represent the data. Exploratory factor analysis was run to identify what the data input can provide the researcher for further analysis (Hair, *et al.*, 2006, p.773). It is used at an early stage of the research and gives information about the interdependence and linkage among a set of variables. It is also used to examine the structure of the measurement items corresponding to the variables presented in the conceptual framework. In this research, exploratory factor analysis is

generated for the perceived employee performance only (and not the current appraisal system), as this is the main focus of the study analysis in the conceptual framework, as well as to confirm the hypotheses (see Chapter 4). Although this study began with some established measures from the literature, a number of these measures were reworded and/or adapted to a new context, taking into account the local environment and settings. Based on the rationale of previously carrying out an EFA, the researcher conducted an initial EFA. However, in order to conduct a factor analysis, two main issues need to be considered in determining whether a particular data set is suitable for factor analysis: sample size, and the strength of the relationship among the variables or items (Pallant, 2010, p.182). Tabachnick and Fidell (2007, p.613) concluded that "*it is comforting to have at least 300 cases for factor analysis*". However, they did concede that a smaller sample size (e.g. 150 cases) should be sufficient if solutions have several high loading marker variables (above 0.80). In this research, sample size is not a problem as the sample size,  $n$ , is greater than 300 ( $n=355$ ).

However, according to Hair, *et al.* (2010, p. 102), the basic assumptions underlying factor analysis are that: some underlying structure does exist in the set of selected variables; sample must have more observations than variables; minimum absolute sample size should be 50 observations; and a desired ratio of five observations per variable. As for strength of the inter-correlations among the items, Tabachnick and Fidell (2007) recommended an inspection of the correlation matrix for evidence of coefficient greater than 0.3. There are two statistical measures generated by SPSS to help assess the factorability of the data: Bartlett's test of sphericity (Bartlett, 1954) and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser, 1974). Bartlett's test of sphericity should be significant ( $p < 0.05$ ) for factor analysis to be considered appropriate. The KMO index ranges from 0 to 1, with 0.6 suggested as the minimum value for a good factor analysis (Tabachnick and Fidell, 2007). For this study, the sample was first assessed for its suitability for factor analysis. Bartlett's Test of Sphericity was highly significant ( $p < 0.001$  and  $\chi^2 = 3556.311$ ) and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy had a value of 0.861, exceeding the recommended value of 0.6 (Kaiser, 1970), supporting the factorability of the matrix.

Table 7.23: Kaiser-Meyer-Olkin (KMO) and Bartlett's Test for this research

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.861
Bartlett's Test of Sphericity	Approx. Chi-Square	3556.311
	Df	435
	Sig.	0.000

Numerous methods of extraction are available for factor analysis, such as principal component analysis (PCA), principal factors, maximum likelihood factoring, image factoring, alpha factoring, unweighted and generalised (weighted) least squares factoring (Tabachnick and Fidell, 2007, p. 633). For this study, principal component analysis (PCA) was employed to generate the initial solutions for the EFA. The PCA helps to extract maximum variance from the data set with each component, whereby the first component extracts the most variance and the last component the least variance (Ibid, p.635). In addition, PCA helps to identify and reduce the large set of variables into a smaller number of components by transforming inter-related variables into new unrelated linear composite variables (Tabachnick and Fidell, 2007; Hair, *et al.*, 2010).

Using PCA as the factor extraction method for this research, the initial item communalities (see Table 6.27) ranged from 0.411 (TEM3-'Performance measurement criteria should be subjective') to 0.834 (FAS2-'Appraisal system should be fair'). The moderate to high range in the communalities showed that the variables fit well with other variables in its component. High communality values indicate large variance whereas small communalities show that a substantial portion of the variable is not accounted for by the factors. However, there is no specific small or large specification parameter for communalities and, for practical consideration, a communality score of 0.50 is often considered significant (Hair, *et al.*, 2010).

By using a PCA, the study applied an orthogonal *varimax* rotation as the factors influencing employee performance in the context of this study were assumed *not* to be correlated (as opposed to oblique rotation). To assess the adequacy of the extraction and the number of factors, Hair, *et al.* (2010, p.109) suggested that three criteria were commonly used: latent root criterion, percentage of variance criterion and scree test criterion. An eigenvalue greater than one (1) satisfies the latent root criterion, while a solution that accounts for 60% of the total variance satisfies the percentage of variance



criterion. It is important to calculate the variability in scores (the variance) for any given measures or variables (Field, 2009). According to Hair, *et al.* (2010, p.105), communality is the total amount of variance an original variable shares with all other variables included in the analysis. A variable that had no specific variance (or random variance) would have a communality of one (1), while a variable that shared nothing with other variables would have a communality of zero (0) (Field, 2009, p. 637). The items that exhibit communality lower than 0.5 (50%) are considered to be weak items (Hair, *et al.*, 2010, p.119). In some cases, with respect to the sample size, 0.3 cut-off value of communality is also accepted (Pallant, 2010, p.198). Another criterion used is Catell's scree test (Catell, 1966). This involves plotting each of the eigenvalues of the factors and inspecting the plot to find a point at which the shape of the curve changes direction and becomes horizontal. Catell (1966) recommended retaining all the factors above the 'elbow', or break in the plot, as these factors contribute the most to the explanation of the variance in the data set.

Table 7.24: Initial Item Communalities

Communalities			Communalities		
	Initial	Extraction		Initial	Extraction
GSP1	1.000	.534	RSF3	1.000	.538
GSP2	1.000	.574	ARC2	1.000	.588
GSP3	1.000	.543	ARC3	1.000	.659
APG1	1.000	.590	ARC4	1.000	.590
APG2	1.000	.540	IGC1	1.000	.743
APG3	1.000	.624	IGC2	1.000	.771
APG4	1.000	.609	IGC3	1.000	.522
FAS1	1.000	.561	IGC4	1.000	.493
FAS2	1.000	.834	PWD1	1.000	.570
FAS3	1.000	.816	PWD2	1.000	.641
TEM1	1.000	.502	PWD3	1.000	.678
TEM2	1.000	.436	PWD4	1.000	.600
TEM3	1.000	.411	PWD5	1.000	.474
RSF1	1.000	.706	PFP1	1.000	.522
RSF2	1.000	.672	PFP2	1.000	.550

Extraction Method: Principal Component Analysis.

Extraction Method: Principal Component Analysis.

In this study, the factor analysis in Table 7.25 shows that eight factors had eigenvalue greater than 1 (latent root criterion) with an eigenvalue of 7.537, 2.430, 1.689, 1.567, 1.380, 1.215, 1.062 and 1.014, respectively. These eight components explained a total of 59.644% of the variance (variance criterion). Catell's scree plot (Figure 6.1) was slightly ambiguous and showed inflexions that would justify retaining eight components.

Because all the eight factors had an eigenvalue greater than one and an eight factor solution was indicated by the scree plot, eight factors were extracted for interpretation. Figure 7.1 shows Catell's Scree Plot, as follows:-

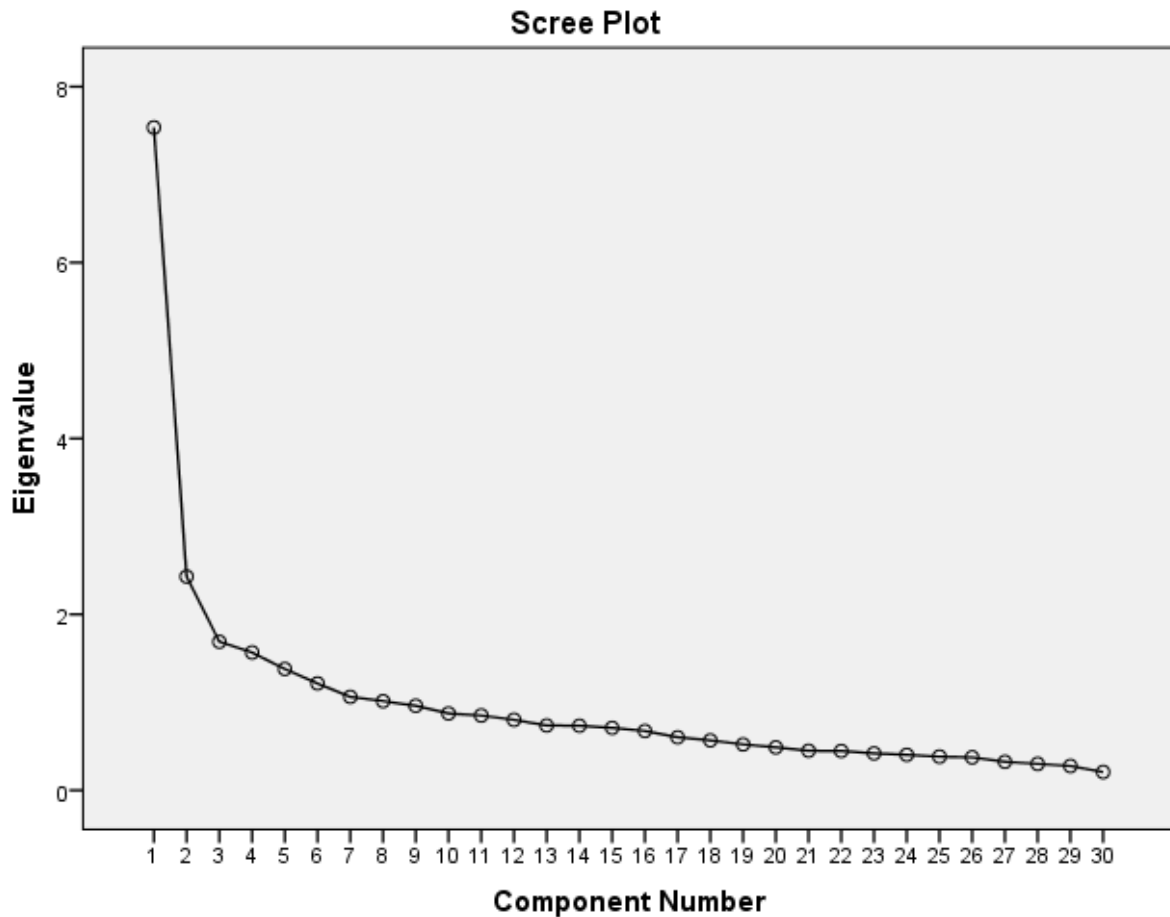


Figure 7.1: Catell's Scree Plot

By carrying out an EFA with orthogonal *varimax* rotation, eight factors were extracted and the initial component matrix is shown in [Appendix 10](#) while the final rotated component matrix is shown in Table 7.26. According to Floyd and Widman (1995), items with loadings greater than 0.40 are considered to be substantial and important. Similarly, Hair, *et al.* (2010) suggested that factor loading with score of 0.50 and greater as very significant.

**Table 7.25: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.537	25.123	25.123	7.537	25.123	25.123	4.192	13.974	13.974
2	2.430	8.100	33.223	2.430	8.100	33.223	2.592	8.639	22.613
3	1.689	5.629	38.852	1.689	5.629	38.852	2.285	7.617	30.230
4	1.567	5.224	44.076	1.567	5.224	44.076	2.185	7.285	37.514
5	1.380	4.598	48.674	1.380	4.598	48.674	2.012	6.707	44.221
6	1.215	4.049	52.723	1.215	4.049	52.723	1.719	5.730	49.951
7	1.062	3.540	56.264	1.062	3.540	56.264	1.459	4.864	54.814
8	1.014	3.380	59.644	1.014	3.380	59.644	1.449	4.829	59.644
9	.961	3.202	62.846						
10	.874	2.913	65.760						
11	.850	2.834	68.593						
12	.801	2.671	71.265						
13	.737	2.455	73.720						
14	.733	2.445	76.165						
15	.710	2.366	78.530						
16	.675	2.250	80.780						
17	.603	2.009	82.789						
18	.568	1.893	84.682						
19	.522	1.739	86.421						
20	.488	1.627	88.047						
21	.450	1.500	89.547						
22	.446	1.488	91.036						
23	.420	1.399	92.435						
24	.404	1.345	93.780						
25	.382	1.275	95.055						
26	.375	1.249	96.304						
27	.324	1.080	97.384						
28	.301	1.003	98.387						
29	.276	.921	99.307						
30	.208	.693	100.000						

Extraction Method: Principal Component Analysis.

**Table 7.26: Rotated Component Matrix**

Variables	Component							
	1	2	3	4	5	6	7	8
APG3	.764							
APG4	.738							
APG2	.721							
APG1	.695							
GSP2		.750						
GSP1		.720						
GSP3		.673						
FAS2			.877					
FAS3			.826					
FAS1			.646					
ARC3				.795				
ARC4				.784				
ARC2				.618				
TEM1					.783			
TEM3					.762			
TEM2					.714			
RSF1						.794		
RSF2						.776		
RSF3						.650		
IGC2							.858	
IGC1							.829	
PWD3							.807	
PWD2							.723	
PWD4							.683	
PWD1							.633	
PWD5							.627	
IGC4							.613	
IGC3							.609	
PFP1								.766
PFP2								.701

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.  
 a. Rotation converged in 8 iterations.

**Note:**

*Variables associated with GSP= Goal-setting and the purposes of performance appraisal; APG= Alignment of personal objectives with organisational goals; FAS= Perceived fairness of the appraisal system; TEM= Types of evaluation measures; RSF= Rating scales format; ARC= Appraiser-appraisee relationship and credibility of appraiser; IGC= In-group collectivism; PWD=power-distance; and PFP=pay-for-performance*

From Table 7.26, the rotated component matrix indicates that the factor analysis identified eight factors. The first factor, which accounted for 13.974% of the variance, loaded on variables for 'alignment of personal objectives with organisational goals' (APG), which consisted of four items: 'individual performance should be aligned to organisational mission and objectives' (APG3); 'appraisal information form measures of departmental objectives' (APG4); 'an effective performance appraisal system is an important indicator of the effectiveness of employee performance' (APG2); and 'objectives need to be set at the beginning of the year in alignment to my organisation's strategy' (APG1).

The second factor comprised of 'goal-setting and the purposes of performance appraisal' (GSP) with three items, GSP2, GSP1 and GSP3, accounting for 8.639% of the variance. The third factor, which accounted for 7.617% of the variance, loaded on 'perceived fairness of the appraisal system' (FAS), which comprised of three items, FAS2, FAS3 and FAS1. The next factor loaded was 'appraiser-appraisee relationship and credibility of appraiser' (ARC) with three items, namely ARC3, ARC4 and ARC2, and accounted for 7.285% of the variance. Factor five, which accounted for 6.707% of the variance, consisted of variables related to 'types of evaluation measures' (TEM) with three items, TEM1, TEM3 and TEM2. The sixth factor loaded on a three-item variables for 'rating scales format' (RSF), RSF1, RSF2 and RSF3, and accounted for 5.73% of the variance. The next factor accounted for a variance of 4.864%, which was comprised of the cultural dimensions of power-distance (PWD) and in-group collectivism (IGC) variables, namely IGC2, IGC1, PWD3, PWD2, PWD4, PWD1, PWD5, IGC4 and IGC3. Finally, the last factor, which accounted for 4.829% of the variance, loaded on variables related to pay-for-performance (PFP), which consisted of two items, PFP1 and PFP2.

#### **7.4.2 Assessment of Validity**

As previously mentioned in section 5.6.3 of Chapter 5, construct validity was examined by assessing the convergent validity, discriminant validity and nomological validity. Convergent validity is the extent to which observed variables of a particular construct share a high portion of the variance in common (Hair, *et al.*, 2010). Factor loadings of construct and average variance extracted (AVE) estimations are used to assess the convergent validity of each of the constructs (Ibid). Hair, *et al.* (2010) further suggested that the ideal standardised loading estimates should be 0.7 or higher, but noted factor loading with score of 0.50 and greater as very significant. The AVE estimation should be

greater than 0.5 to show adequate convergent validity. In this research, all loadings were greater than 0.50 and considered to be significant; thus, convergent validity was established, as Dunn, *et al.* (1994) suggested that 'if the factor loadings are statistically significant, then convergent validity exists'. The average variance extracted is shown in Table 7.28 and shows that the AVE estimation is greater than 0.5. Thus, the results demonstrate a high level of convergent validity of the latent construct used in the model.

In addition, discriminant validity was assessed by the average variance extracted (AVE) for each construct compared with the corresponding squared inter-construct correlations (SIC). Table 7.27 shows the inter-correlations of the construct while Table 6.32 indicates the SIC and AVE. From Table 7.28, the results indicate that the AVE estimates are greater than the SIC estimates and demonstrate a high level of discriminant validity. As for nomological validity, this was tested by examining whether or not the correlations between the constructs made any sense (Hair, *et al.*, 2010). The construct correlations (estimates) were used to assess the nomological validity of the model and the results are indicated in [Appendix 11](#). The results show that all the correlations were positive and significant and that the correlations were consistent with the theoretical model and, thus, supported the nomological validity (Ibid).

Table 7.27: *Inter-construct correlations*

	GSP	APG	FAS	TEM	RSF	ARC	PFP
GSP	1						
APG	0.679	1					
FAS	0.55	0.445	1				
TEM	0.712	0.637	0.653	1			
RSF	0.552	0.624	0.406	0.726	1		
ARC	0.702	0.621	0.605	0.753	0.637	1	
PFP	0.605	0.505	0.414	0.334	0.479	0.506	1

Table 7.28: *Average Variance Extracted (AVE) and Discriminant Validity*

	GSP	APG	FAS	TEM	RSF	ARC	PFP
GSP	<b>0.511</b>						
APG	0.461	<b>0.533</b>					
FAS	0.302	0.198	<b>0.623</b>				
TEM	0.506	0.405	0.426	<b>0.568</b>			
RSF	0.307	0.389	0.165	0.527	<b>0.522</b>		
ARC	0.492	0.385	0.366	0.567	0.406	<b>0.543</b>	
PFP	0.366	0.255	0.171	0.112	0.229	0.256	<b>0.539</b>

**Note:** Diagonal values are average variance extracted (AVE) and off-diagonal are squared inter-construct (SIC) correlations

As the results indicate that all the factor loadings were greater than 0.6, which indicates moderate to strong loadings, these factors can therefore be considered as the basis for the confirmatory factor analysis (CFA) application, which is part of structural equation modelling (SEM) techniques. For the final factor loadings with mean, standard deviations (SD), Cronbach's alpha, after exploratory factor analysis was carried out as well as average variance extracted, is summarised in Table 7.29. In the next section, structural equation modelling (SEM) and confirmatory factor analysis (CFA) are performed to assess the model fit.

### **7.4.3 Structural Equation Modelling**

Structural equation modelling (SEM) is a family of statistical models that seeks to explain the relationships among multiple variables. According to Hair, *et al.* (2010, p.634), SEM is "*a multivariate technique combining aspects of factor analysis and multiple regression that enables the researcher to simultaneously examine a series of interrelated dependence relationships among the measured variables and latent constructs (variates) as well as between several latent constructs*". It is developed by two components, the measurement model (known as confirmatory factor analysis) and structural model, which aim to find overall model fit so as to confirm the consistency of a theoretical model and estimated model (Anderson and Gerbing, 1988; Tabachnick and Fidell, 2007; Hair, *et al.*, 2010). In the first step, the measurement model was specified using the interrelationships between indicator (observed) and latent (unobserved) factors. For this measurement model, CFA was performed using SEM software AMOS 20 (Analysis of Moment Structure). In the second step, the structural model related to the dependent and independent variable was related in order to test the hypotheses.

Table 7.29: Summarised table of final factor loadings with mean, standard deviations and Cronbach's alpha (after EFA) and average variance extracted (AVE)

Variables	Factor loadings	Mean	Standard deviation (SD)	Cronbach's alpha (after EFA)	Average Variance Extracted (AVE)
APG3	.764	4.01	.732	.761	.533
APG4	.738	4.23	.600		
APG2	.721	4.09	.689		
APG1	.695	4.23	.600		
GSP2	.750	4.35	.564	.729	.511
GSP1	.720	4.28	.581		
GSP3	.673	4.40	.565		
FAS2	.877	4.66	.541	.777	.623
FAS3	.826	4.65	.506		
FAS1	.646	4.45	.546		
ARC3	.795	4.23	.632	.698	.543
ARC4	.784	4.44	.525		
ARC2	.618	4.48	.564		
TEM1	.783	4.26	.658	.687	.568
TEM3	.762	3.69	.927		
TEM2	.714	4.10	.748		
RSF1	.794	4.05	.678	.747	.552
RSF2	.776	4.00	.704		
RSF3	.650	4.22	.643		
IGC2	.858	3.84	.953	.687	.512
IGC1	.829	4.07	.871		
PWD3	.807	3.14	1.135		
PWD2	.723	3.00	1.152		
PWD4	.683	3.13	1.127		
PWD1	.633	4.50	.607		
PWD5	.627	3.54	.965		
IGC4	.613	4.19	.827		
IGC3	.604	3.40	1.177		
PFP1	.766	4.10	1.038		
PFP2	.701	4.35	.687		

In statistics, there are many methods to test the overall model fit; however, no one method can provide an absolute assurance of model fit. According to Hair *et. al* (2010, p. 665), fit indices can be categorised into three groups: absolute fit, incremental fit and parsimony fit indices. Absolute fit indices are a direct measure of how well the model specified by the researcher reproduces the observed data. The most common absolute fit indices used are chi-square ( $\chi^2$ ), Goodness of Fit Index (GFI) and Root Mean Square Error Approximation (RMSEA). Chi-square ( $\chi^2$ ) is the most common fit test index in SEM. It is a statistical measure of difference used to compare the observed and estimated



covariance matrices, and the only measure that has a direct statistical test as to its significance (Hair, *et al.*, 2010, p. 666). A lower value of chi-square ( $\chi^2$ ) shows a better fit between an estimated model and the observed data. Goodness of Fit Index (GFI) is a measure indicating how well a specified model reproduces the observed covariance matrix among the indicator variables (Hair, *et al.*, 2010, p. 667). The possible range of GFI values is 0 to 1, with higher values indicating better fit. GFI values of greater than 0.90 are typically considered good (Ibid). One of the most widely used measures that attempts to correct the tendency of the  $\chi^2$  Goodness-of-Fit test statistic to reject models with a large sample or a large number of observed variables, is the Root Mean Square Error Approximation (RMSEA). Thus, it better represents how well a model fits a population, not just a sample used for estimation. Lower RMSEA values (between 0.03 and 0.08) indicate better fit (Ibid, p.667).

On the other hand, the most commonly used incremental fit indices are normed fit indices (NFI) and comparative fit indices (CFI). NFI is the ratio of the difference in the  $\chi^2$  value for the fitted model and a null model divided by the  $\chi^2$  value for the null model. It ranges between 0 and 1, and a model with perfect fit would produce an NFI of 1. In similar vein, CFI is an improved version of NFI with a range of between 0 and 1, with higher values indicating better fit. CFI values above 0.90 are usually associated with a model that fits well (Hair, *et al.*, 2010, p. 669). The final category is the parsimony fit indices, in which the most commonly used is the Adjusted Goodness of Fit Index (AGFI). AGFI is an extended version of GFI which is adjusted by the ratio between the degree of freedom for the proposed model and the degree of freedom available. AGFI values are typically lower than GFI values in proportion to model complexity. Values of 0.90 or above are considered to be a good fit and those ranging from 0.80 to 0.89 are considered to be reasonable fit (Ibid).

#### **7.4.4 Confirmatory Factor Analysis and Measurement Models**

Following on from exploratory factor analysis, confirmatory factor analysis (CFA) is conducted to quantify, test and confirmed a *priori* proposed or hypothetical structure of the relationships among a set of considered measures (Raykos and Marcoulides, 2008). The purpose of the CFA is to identify latent factors that account for the variation and co-variation among a set of indicators. Instead of using a correlation matrix ( a correlation matrix is a completely standardised variance-covariance matrix), CFA typically analyses

a variance-covariance matrix needed to produce an unstandardised CFA solution (Brown, 2006).

In the context of this research, the results from the exploratory factor analysis indicated an *eight-factor model* with the seven factors related to 'alignment of personal objectives with organisational goals'; 'goal-setting and the purposes of performance appraisal'; 'perceived fairness of the appraisal system'; 'appraiser-appraisee relationship and credibility of appraiser'; 'types of evaluation measures'; 'rating scales format'; cultural dimensions and 'pay-for-performance' factors. However, since one of the factors associated with this research is the cultural dimensions of power-distance and in-group collectivism, which is likely to be a moderating variable to satisfaction with the appraisal system, this factor is *excluded* for the purpose of subsequent confirmatory factor analysis. Thus, for the purpose of CFA, a *seven-factor model* is used for the subsequent analysis.

The assessment of measurement model by confirmatory factor approach is performed by employing maximum likelihood (ML) estimation using AMOS 20. Maximum likelihood estimation is a flexible approach to parameter estimation in which the 'most likely' parameter values to achieve the best model fit are found. This approach is applicable when the sample size does not meet the criterion of having at least five observations for each variable (Hair, *et al.*, 2010). Using AMOS, the seven-factor model is subjected to CFA analysis. The initial CFA results indicated that all exogenous (independent) variables were significant indicators of satisfaction of performance appraisal ( $p < 0.001$ ). Table 7.30 provides summarised results of the initial CFA and squared multiple correlations for all the variables. The squared multiple correlations indicated that the dependent variable with the highest proportion of variance that explained this model was *FAS3* with 80.7%, followed by *FAS2* (66.3%), while the lowest proportion was on *TEM4*, with just 5% of the variance.

Table 7.30: Summarised results of the initial CFA (from AMOS output)

[Note: \*\*\*\* indicates significant at  $p < 0.001$ ]

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
GSP3	<---	SettingGoal	1.000				
GSP2	<---	SettingGoal	.969	.087	11.198	***	
GSP1	<---	SettingGoal	.993	.089	11.155	***	
APG4	<---	Alignmnt	1.000				
APG3	<---	Alignmnt	1.005	.097	10.411	***	
APG2	<---	Alignmnt	.876	.084	10.421	***	
APG1	<---	Alignmnt	.939	.091	10.366	***	
FAS3	<---	Fair	1.000				
FAS2	<---	Fair	.968	.061	15.765	***	
FAS1	<---	Fair	.656	.063	10.447	***	
RSF3	<---	Format	1.000				
RSF2	<---	Format	1.087	.121	8.961	***	
RSF1	<---	Format	1.028	.116	8.866	***	
ARC4	<---	Relationship	1.000				
ARC3	<---	Relationship	1.319	.117	11.260	***	
ARC2	<---	Relationship	1.097	.102	10.704	***	
PFP2	<---	PayPerf	1.000				
PFP1	<---	PayPerf	1.056	.188	5.630	***	
TEM4	<---	Types	1.000				
TEM3	<---	Types	1.655	.491	3.370	***	
TEM1	<---	Types	1.884	.523	3.602	***	

Squared Multiple Correlations: (Group number 1 - Default model)

Variable	Estimate	Variable	Estimate
TEM1	.481	FAS1	.304
TEM3	.186	FAS2	.663
TEM4	.050	FAS3	.809
PFP1	.242	APG1	.455
PFP2	.496	APG2	.462
ARC2	.482	APG3	.461
ARC3	.561	APG4	.406
ARC4	.463	GSP1	.461
RSF1	.407	GSP2	.465
RSF2	.422	GSP3	.493
RSF3	.429		

By running the AMOS analysis again, but this time with satisfaction with performance appraisal ('Satisfn') as the dependent (endogenous) variable, the squared multiple correlations ( $r^2$ ) for the composite variables are indicated in Table 7.31. The  $r^2$  values for structural equations were finally inspected, indicating the amount of variance in the endogenous variable accounted for by the independent (exogenous) variable. The  $r^2$  values are values representing the extent to which a measured variable's variance is

explained by a latent factor (similar to the idea of communality from EFA). The results showed that the model explained about 54.9% in alignment of personal objectives with organisational goal ('Alignmnt'); 54.8% in appraiser-appraisee relationship and credibility of appraiser ('Relationship'); 54.3% of the variance in goal-setting and the purposes of performance appraisal ('SettingGoal'); 48.7% in types of performance evaluation measures ('Types'); 45.5% in perceived fairness of the appraisal system ('Fair'); 40.1% in format of rating scales ('Format'); and 21.0% in presence of pay-for-performance ('PayPerf').

Table 7.31: Squared multiple correlations ( $r^2$ ) for the composite variable

Model Summary					
Model	Predictors	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	Goal Setting	.737	.543	.542	6.66961
	Alignment	.741	.549	.548	6.62594
	Fairness	.675	.455	.454	7.28477
	Types of Evaluation	.698	.487	.483	7.08692
	Rating Format	.633	.401	.399	7.63876
	Relationship	.741	.548	.545	6.65034
	Pay-for-Performance	.458	.210	.208	8.77188

Table 7.32: Unstandardised and standardised coefficients with relevant  $\beta$  and  $t$ -values

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	19.915	2.300		8.659	.000
	Goalsetting	1.422	.198	.199	7.181	.000
	Alignment	1.133	.131	.235	8.663	.000
	Fairness	1.498	.178	.201	8.421	.000
	EvaluationTypes	.806	.103	.180	7.826	.000
	Objective	4.358	.537	.332	8.116	.000
	Subjective	2.414	.441	.227	5.471	.000
	Team-based	.322	.364	.035	.884	.377
	RatingFormat	.960	.146	.154	6.563	.000
	Relationship	1.129	.122	.219	9.234	.000
	Culture	1.553	.116	.582	13.399	.000
	Collectivism	2.172	.182	.512	11.944	.000
	Power Distance	1.016	.167	.260	6.065	.000
	Pay	.950	.144	.138	6.579	.000

a. Dependent Variable: Satisfaction

Meanwhile, the AMOS output for the initial CFA in Figure 7.2 suggested that the statistically significant pattern and structure coefficients indicated that the performance appraisal satisfaction model was composed of the seven measured variables named in the model. The range of moderate to strong loadings were found with variables associated with goal-setting and the purposes of performance appraisal ('SettingGoal'), alignment of personal objectives with organisational goal ('Alignmnt'), perceived fairness of the appraisal system ('Fair'), types of performance evaluation measures ('Types'), format of rating scales ('Format'), appraiser-appraisee relationship and credibility of appraiser ('relationship') and presence of pay-for-performance ('payperf'). The lowest loadings were on variables TEM3 (0.40) and PFP1 (0.49), which may cause problems with model fit. The relationship among the observed variables were characterised by the covariances among the variables contained in a sample covariance matrix. This matrix is decomposed by a model that assumes that unobserved variables are generating the pattern or structure among observed variables (Long, 1983). A covariance matrix in CFA is more or less like the correlation matrix in EFA (Marcoulides, 1998). The initial CFA shown in Figure 7.2 indicates that the covariances within the CFA range from low (e.g. value of 0.33 between 'payperf' and 'types') to moderate (e.g. value of 0.64 between 'relationship' and 'format') to strong covariances (e.g. value of 0.88 between 'SettingGoal' and 'Alignmnt'). This further indicates that the latent variables or factors fit well with one another.

In order to confirm the findings of the EFA and CFA and to study the underlying relation between components of performance appraisal satisfaction, an initial structural model was fitted to the data, as shown in Figure 7.3. The path diagram highlights the structural relationship between satisfaction and the seven respective variables.

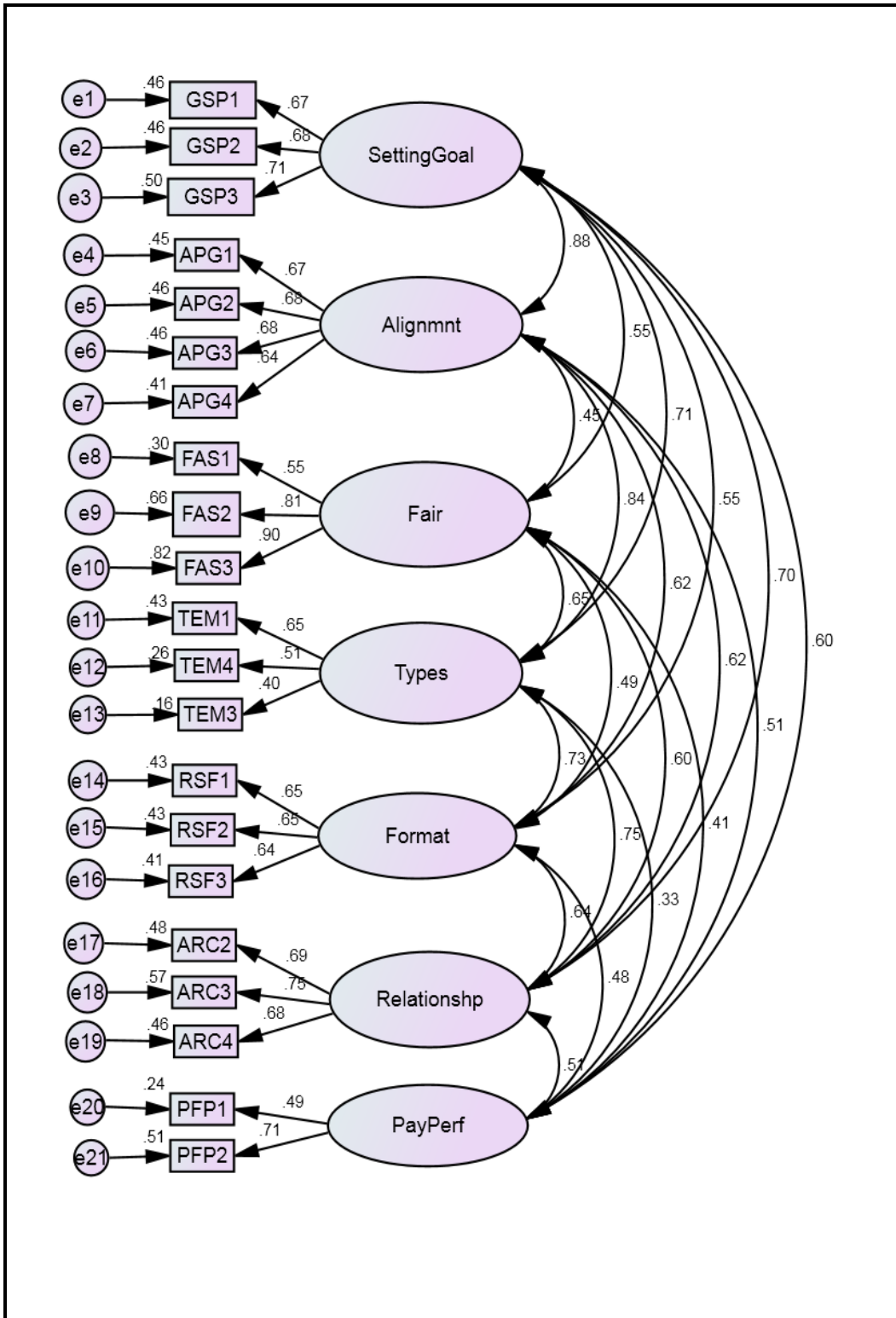
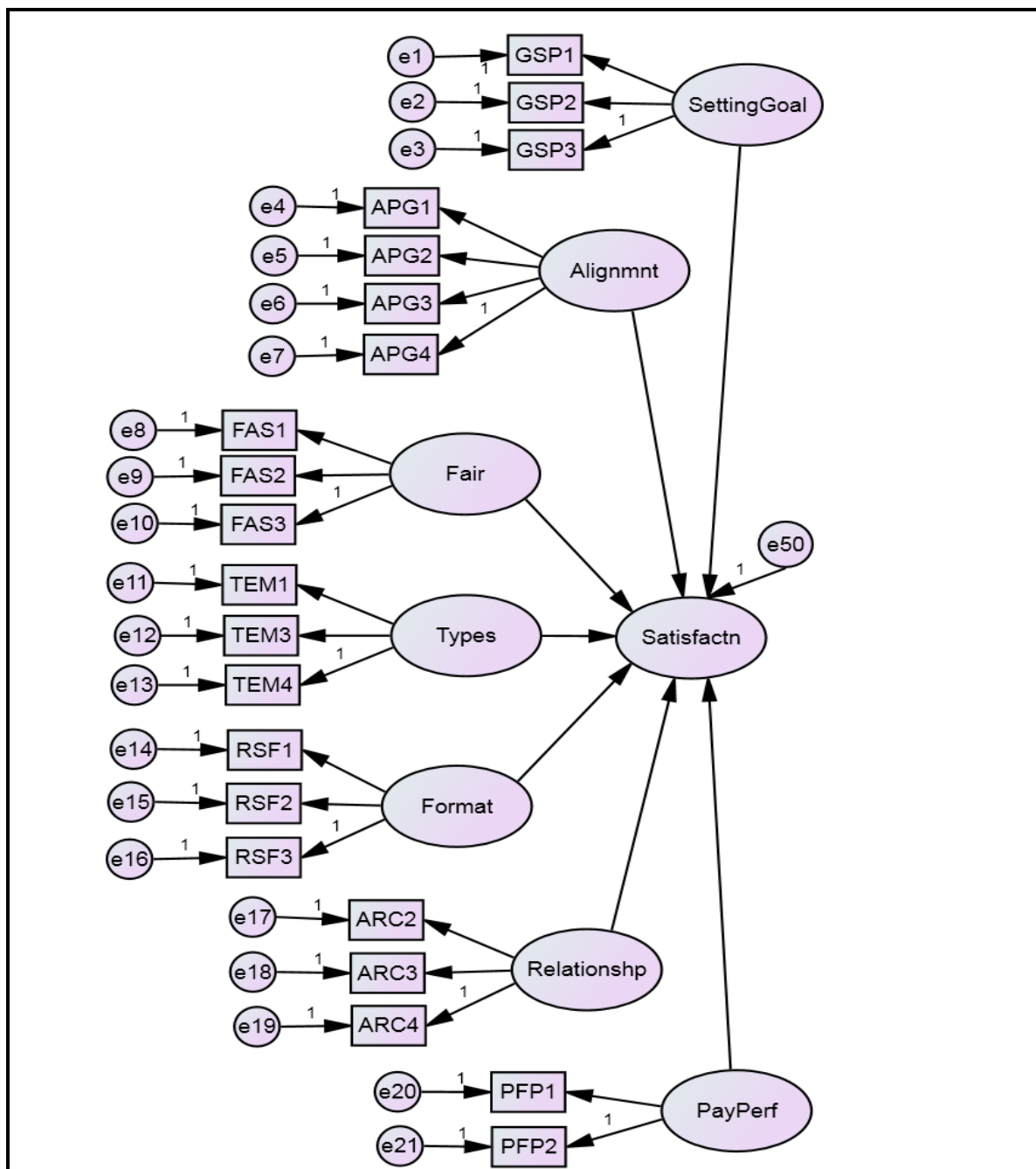


Figure 7.2: Path diagram showing initial hypothesised first-order confirmatory factor analysis model with standardised coefficients (from AMOS)

Figure 7.3: Initial Structural Model



#### 7.4.5 Assessment of Model fit for the Confirmatory Factor Analysis

The researcher then tested the proposed model, which is based on the research hypotheses, on the basis of the measurement model presented in Figure 7.2. In order to confirm the findings from the exploratory factor analysis and to study the underlying relation between components of appraisal satisfaction, the researcher tested the CFA model by examining the covariance matrix, path estimates and *t*-values. The results

showed that all the examined paths were statistically significant at p-value <0.001. In order to assess the model fit, a two-step approach (Anderson and Gerbing, 1988) was adopted, as previously mentioned in section 7.4.3. The initial results revealed that chi square statistics ( $\chi^2$ ) is 466.293 with degrees of freedom (*df*) equal to 168 was significant at p<0.05, indicating that fit of data to the model was good ( $\chi^2/df < 3$ ). However, it was unreasonable to rely on the  $\chi^2$  statistics alone as sole indicator for evaluating the model, as this statistic is sensitive to sample size and very sensitive to the violations of the assumptions of normality. Therefore, other fit indices, GFI, AGFI, CFI, NFI and RMSEA, were used to assess the specification of the model. Results revealed the initial values of GFI=0.892, AGFI=0.852, CFI=0.884, NFI=0.832 and RMSEA=0.071 (Table 7.33). The RMSEA value of 0.071 is between the recommended value of 0.03 to 0.08, which indicates better fit. However, the CFI is slightly below the cut-off point of 0.90, AGFI is between the recommended values of good fit range of 0.80-0.90, while GFI and NFI are both slightly below the recommended threshold values. These results indicated the need for further refinement of the model as they were not consistent with the recommended values of the fit indices of the a priori specified measurement model.

	Absolute fit indices					Incremental fit indices		Parsimony fit indices
	$\chi^2$	Df	$\chi^2/df$	GFI	RMSEA	NFI	CFI	AGFI
<b>Criteria</b>			$\chi^2/df < 3$	$\geq 0.90$	$0.03 < x < 0.08$	$\geq 0.90$	$\geq 0.90$	$\geq 0.80$
<b>Results obtained</b>	466.293	168	2.776	0.892	0.071	0.832	0.884	0.852

Table 7.33: Goodness of fit statistics for the initial CFA

Given the fact that some of the fit indices of the initial run of CFA, such as GFI, NFI, and CFI, were *not* within the recommended threshold values, further detailed evaluation was conducted to refine and re-specify the model in order to improve discriminant validity and achieve a better fit of model (Kline, 2005). According to Bryne (2001), factor loadings should be greater than 0.7 and squared multiple correlations value should be greater than the cut-off point of 0.5. In addition, in order to modify the model, model modification criteria were used. Modification indices (MI) that show high covariance and demonstrate high regression weights are candidates for deletion (Bryne, 2001; Hair, *et al.*, 2010).



Following these recommended criteria, the researcher re-ran the seven-factor model until a better fit model had been achieved. The following table (Table 7.34) summarises the assessment steps of model fit until an improved version of the model was achieved. The final CFA model (Model 4) was obtained by removing variable TEM3 because it had the lowest loading of 0.40. Consequently, modification indices (MI) which had the highest covariances among the same exogenous variables, which in this case was e6 to e7 (MI=30.797) and e4 to e7 (MI=17.243), were then taken into account by putting covariances between those residuals. The CFA was re-run for assessing the model fit. The results showed that the goodness of fit indices were improved and the revised model demonstrated a better fit to the data. The result of the respective measurement model indicated that the absolute fit measures, GFI and RMSEA, were 0.901 and 0.070, respectively; the incremental fit measures, NFI and CFI, were 0.853 and 0.900, respectively and the parsimony fit measure, AGFI, was 0.859. All of these measures, except NFI, surpassed the minimum threshold values. In addition to these indices, the ratio of  $\chi^2/df$  was 2.719 which was within the acceptable threshold level ( $\chi^2/df < 3$ ). The final confirmatory factor analysis model is shown in Figure 7.4 in which two significant correlations were found among error terms. Such correlations were expected, because of the non-independence associated with testing multiple properties and because of association among the individual variables. Second, significant loadings of moderate to strong loadings were obtained on almost all the seven variables, which was consistent with the previous results from the exploratory factor analysis. The full structural model with factor loadings, path value and covariances is shown in Figure 7.5

Table 7.34: How the final CFA model was achieved

Model	Fit Indices	$\chi^2/df$	GFI	RMSEA	NFI	CFI	AGFI
	Criteria	$\chi^2/df < 3$	$\geq 0.90$	$0.03 < x < 0.08$	$\geq 0.90$	$\geq 0.90$	$\geq 0.80$
<b>Model 2</b> [TEM3 removed]		447.949/1 49 = 3.006	0.890	0.075	0.835	0.881	0.846
<b>Model 3</b> [TEM3 removed and MI applied on e6→e7]		410.595/1 48 = 2.774	0.899	0.071	0.849	0.896	0.857
<b>Model 4</b> [TEM3 removed and MI applied on e6→e7 and e4→e7]		399.688/1 47 = 2.719	0.901	0.070	0.853	0.900	0.859

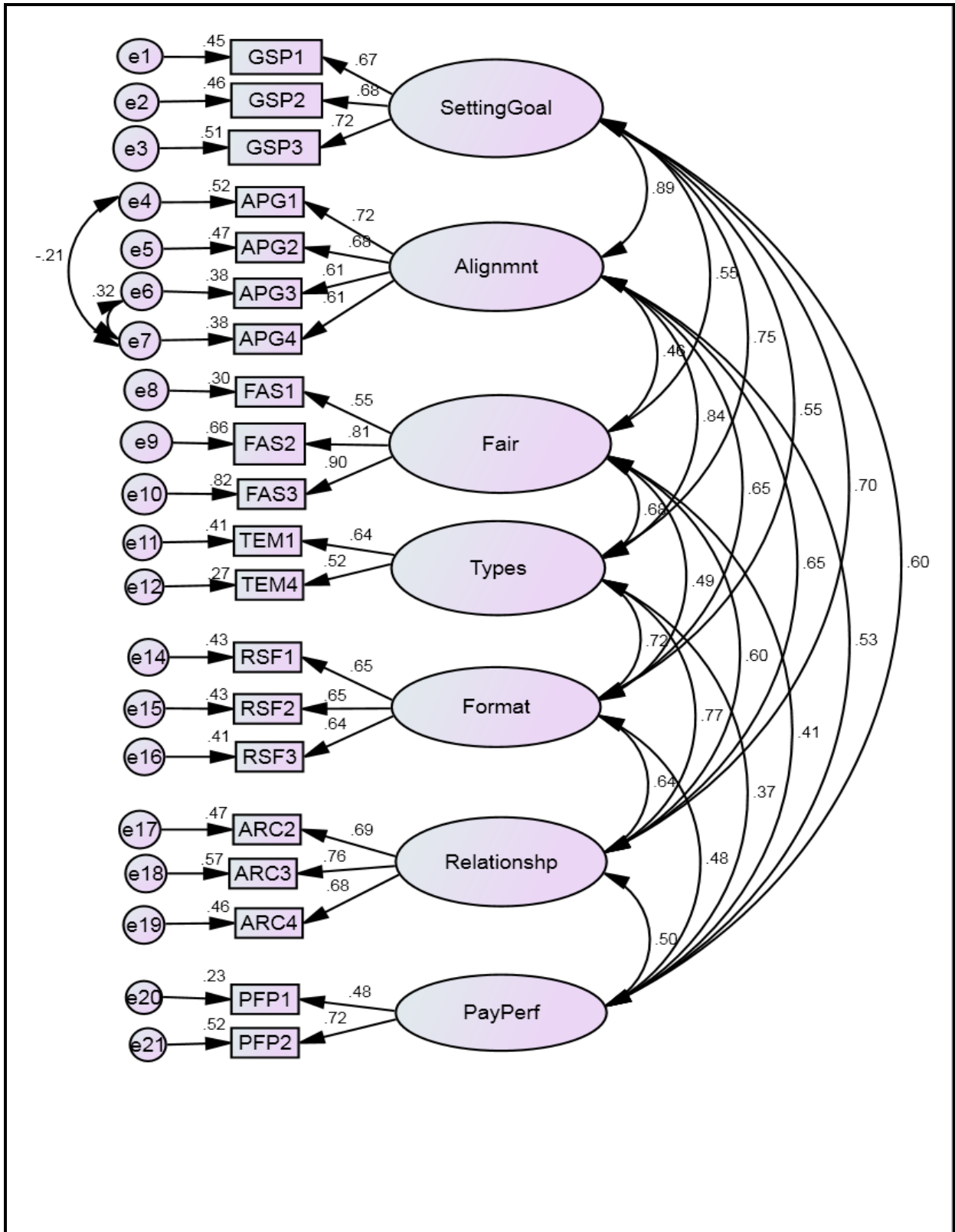
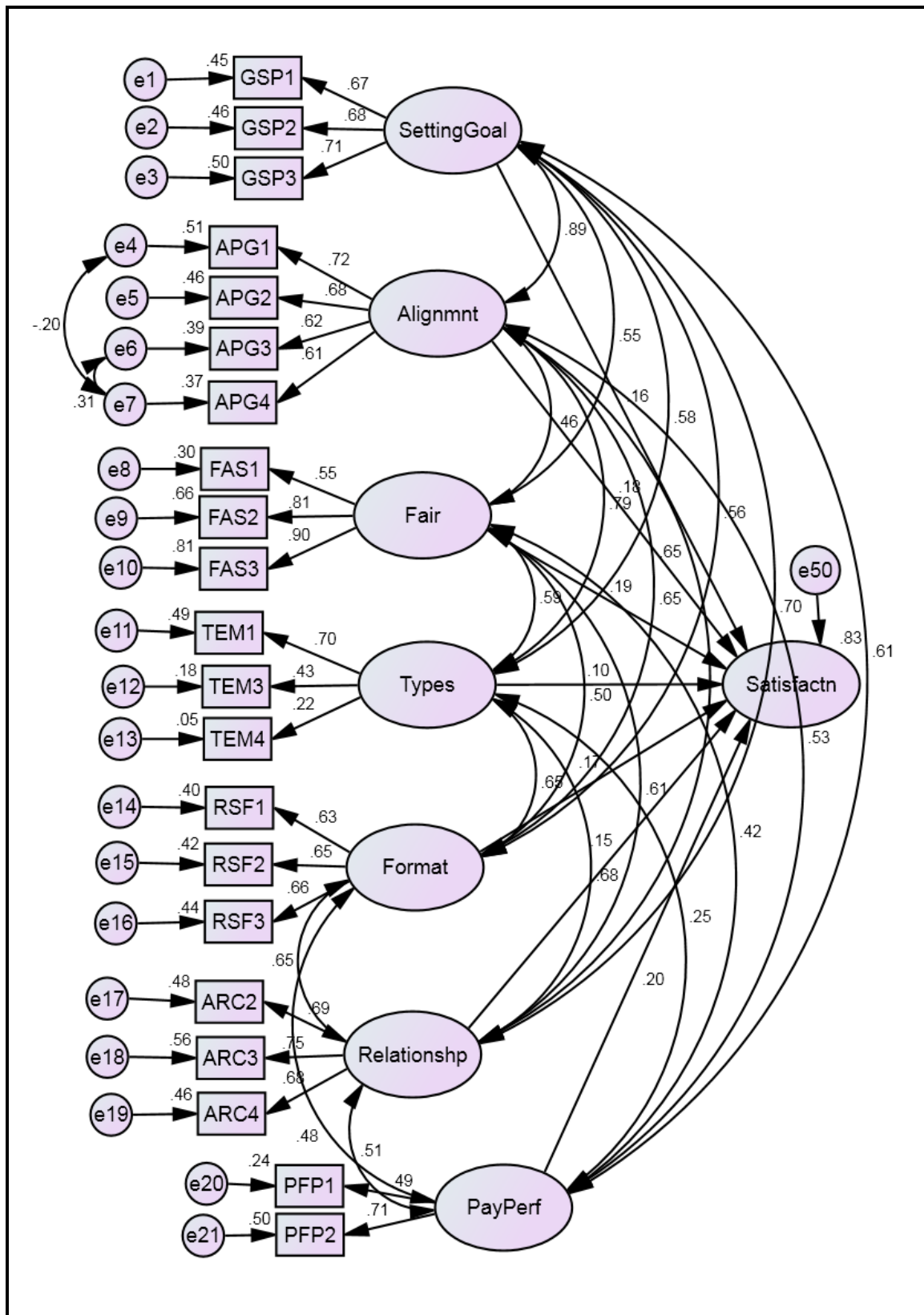


Figure 7.4: Final confirmatory factor analysis model (with standardised coefficients)

Figure 7.5: Full structural model



## 7.5 HYPOTHESIS TESTING

This section presents the results of hypotheses testing. Table 7.35 shows thirteen hypotheses, represented by the causal paths (H1, H2, H3, H4, H4a, H4b, H4c, H5, H6, H7, H7a, H7b and H8) that were used to test the relationships between the latent constructs. In structural equation modelling terms, the latent constructs used in the proposed conceptual model (as described in Chapter 4) were classified into two main categories: exogenous (independent) and endogenous (dependent) variables. Exogenous constructs were goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goal; fairness of the appraisal system; types of performance evaluation measures; format of rating scales; appraiser - appraisee relationship and credibility of appraiser and presence of pay-for-performances, while endogenous construct consisted of satisfaction with performance appraisal. Hypothesis H1 predicts that goal-setting and the purposes of performance appraisal are significantly and positively related to satisfaction with the performance appraisal system. The results indicated that the relationship is positive and significant ( $\beta=0.199$ ;  $t=7.181$ ,  $p<0.001$ ), thus H1 is supported. Hypothesis H2 predicts a significant and positive relationship between alignments of personal objectives with organisational goal to satisfaction with the performance appraisal system. The results suggested that H2 is supported with  $\beta=0.235$ ;  $t=8.663$ ,  $p<0.001$ . Hypothesis H3 predicts that perceived fairness of the appraisal system is significantly and positively related to satisfaction with the performance appraisal system, wherein the results indicated that H3 is also supported ( $\beta=0.201$ ;  $t=8.421$ ,  $p<0.001$ ).

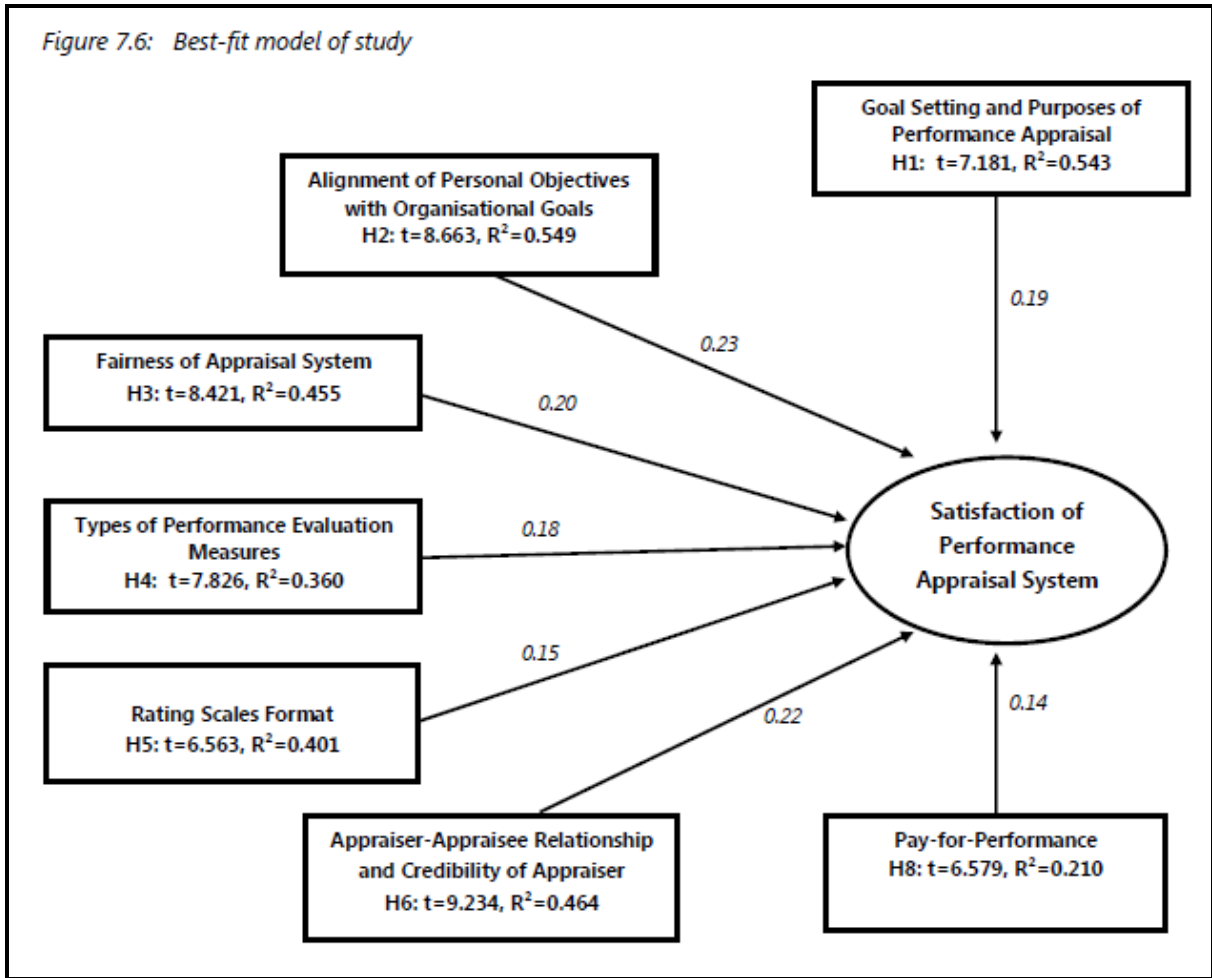
The results also showed that hypothesis H4, which suggested that the type of performance evaluation measures used in employee performance appraisal is significantly and positively related to satisfaction with the performance appraisal system, is supported at the 0.001 significance level ( $\beta=0.180$ ;  $t=7.826$ ). Consistent with hypothesis H4a, the results showed that objective performance appraisal is a better representation of employee performance than subjective performance appraisal ( $\beta=0.332$ ;  $t=8.116$ ,  $p<0.001$ ). The results also supported hypothesis H4b in which subjective or traits-based performance evaluation is not a reliable indicator of an employee's actual performance at the  $p<0.001$  significance level ( $\beta=0.227$ ;  $t=5.471$ ). However, hypothesis H4c, which suggested that team-based measures are a better representation of employee performance appraisal than individual-based measures, is not supported, as the relationship is not significant ( $\beta=0.035$ ;  $t=0.884$ ,  $p=0.377$ ).

The result further revealed hypothesis H5, suggesting that the format of rating scales used is significantly related to satisfaction with the performance appraisal system, is supported with  $\beta=0.235$ ;  $t=8.663$ ,  $p<0.001$ . In addition, hypothesis H6, predicting that appraiser-appraisee relationship and credibility of appraiser is significantly and positively related to satisfaction with the performance appraisal system, is also supported at the 0.001 significance level with  $\beta=0.219$  and  $t=9.234$ . Hypothesis H7, which predicts that the extent of selected dimensions of culture will moderate the performance appraisal system, is also significant ( $p<0.001$ ) with  $\beta=0.582$ ;  $t=13.399$ . Consistent with hypothesis H7a, the results further showed that in-group collectivism will moderate the satisfaction of performance appraisal system is also supported ( $\beta=0.512$ ;  $t=11.944$ ,  $p<0.001$ ). Hypothesis H7b, suggesting that power-distance will moderate the satisfaction of performance appraisal system, is also supported with  $\beta=0.260$ ;  $t=6.065$ ,  $p<0.001$ . Finally, hypothesis H8, which predicts that the presence of pay-for-performance is significantly and positively related to satisfaction with the performance appraisal system, is further supported with  $\beta=0.138$ ;  $t=6.579$ ,  $p<0.001$ .

Table 7.35: Summary of Hypothesis Testing

Research Questions	Hypotheses	Results
RQ.1 What are the antecedent variables that may affect the perception of an accurate individual performance appraisal system?	H1: Goal Setting and Purposes of Performance Appraisal is significantly and positively related to the satisfaction of performance appraisal system	Supported
	H2: The alignment of personal objectives with organisational goal is significantly and positively related to the satisfaction of performance appraisal system	Supported
RQ.2 How does individual performance appraisal relate to individual appraisal satisfaction?	H3: Perceived fairness of Appraisal System is significantly and positively related to the satisfaction of performance appraisal system	Supported
	H4: The type of performance evaluation measures used in employee performance appraisal is significantly and positively related to the satisfaction of performance appraisal system	Supported
	H4a: Objective performance appraisal is a better representation of employee performance than subjective performance appraisal	Supported
RQ.4 How effective is the current performance appraisal system in the public service of Brunei Darussalam with regards to measuring employee performance and achieving organisational goals?	H4b: Subjective or traits-based performance evaluation is not a reliable indicator of employee's actual performance	Supported
	H4c: Team-based measures are a better representation of employee performance appraisal than individual-based measures.	Not Supported
	H5: The format of rating scales used is significantly related to the satisfaction of performance appraisal system	Supported
	H6: Appraiser - Appraisee Relationship and Credibility of Appraiser is significantly and positively related to the satisfaction of performance appraisal system	Supported
	H8: The presence of pay-for-performances link mediates the relationship satisfaction of performance appraisal system	Supported
RQ.3 Does in-group collectivism and power distance dimensions of culture moderates the accuracy of individual performance ratings?	H7: The extent of selected dimensions of culture will moderate the performance appraisal system	Supported
	H7a: In-group collectivism will moderate the satisfaction of performance appraisal system	Supported
	H7b: Power distance will moderate the satisfaction of performance appraisal system	Supported

Figure 7.6: Best-fit model of study



## 7.6 SUMMARY

This chapter presented the results and overall findings of the research study. The main purpose of these analyses has been to answer the relevant research questions as well as to quantitatively test the research hypotheses. To achieve these objectives, various analyses were applied to the data using the three phases of exploratory qualitative study, pilot study and main quantitative study.

Phase one involved exploring the data and included a descriptive analysis of the constructs to be explored in the form of interview questions in relation to the main themes, covering aspects such as effectiveness of the current performance appraisal system, perceived employee performance, aspects of performance management and definitions of constructs and variables with regards to the measurement of employee performance. The second phase involved a pilot study in the form of a survey questionnaire developed as a result of qualitative findings. The pilot study aimed to

assess the key requirements through instrument purification, such as checking question wording, arrangement, layout, understanding of respondents, response rate, questionnaire duration and analysis procedure. Moreover, the pilot study was used to appraise the degree of content validity and reliability to confirm that the directions, questions and scale of questions were easy to comprehend. As a result of the pilot study, two items in the questionnaires were deleted for the purpose of the main study, as both items were considered not reliable.

The final phase consisted of the main quantitative study which sought to uncover the relationship between independent and dependent variables, as well as some latent variables in the employee performance management domain in Brunei. This chapter then presented the procedures, followed by assessing the structural model and the results of hypotheses testing. These procedures started with data examination and the data screening phase, including checking the missing data, detecting outliers, testing of normality of data distribution and testing of homoscedasticity and multicollinearity. In this study, the researcher used the statistical package of SPSS and AMOS version 20. The initial data examination was first carried out using principal component analysis and orthogonal model with *varimax* rotation method applied to perform the exploratory factor analysis. Subsequently, confirmatory factor analysis and structural equation modelling approach were then used to assess the measurement model and structural model to establish a model fit on the basis of 355 cases. Maximum likelihood approach was used in the analysis. In structural equation modelling, the researcher follows the steps of model specification, identification, estimation, testing and modification and comes up with the best fit model.

The initial results indicated that the chi-square test was significant as well as the RMSEA and AGFI, but that GFI, NFI and CFI were a little lower than the recommended threshold values. The model was again re-evaluated and confirmatory factor analysis was re-run to establish a better fit. The results of the model revealed that the fit indices were improved and, thus, the revised model demonstrated a better fit to the data. Finally, the structural model was assessed to test the hypothesised relationships between latent constructs. Thirteen hypotheses (H1, H2, H3, H4, H4a, H4b, H4c, H5, H6, H7, H7a, H7b and H8) represented by causal paths were used to test the relationships between the latent constructs. The results indicated that all hypotheses, except for H4c, were statistically significant and, thus, accepted. The next chapter presents detailed discussions of the findings of this study.



## **CHAPTER EIGHT: DISCUSSIONS**

### **8.1 INTRODUCTION**

In this chapter, the findings presented in previous chapters are discussed in conjunction with support from theory presented in the literature review (Chapter 2), conceptual framework (Chapter 4) and the research methodology with regards to data management (Chapter 5). This chapter is aimed at integrating and discussing the findings presented in the qualitative (Chapter 6) and quantitative (Chapter 7) chapters. The chapter also discusses the possible justifications for the significance and insignificance of the proposed relationship in the conceptual framework. Firstly, an overview of the research study is presented and the main findings are summarised. The findings of all hypotheses tested are then reviewed and compared with past research. Finally, the key arguments of the thesis are drawn.

### **8.2 OVERVIEW OF THE RESEARCH STUDY AND SUMMARY OF MAIN FINDINGS**

Satisfaction of performance appraisal system is seen as instrumental in motivating employees in the public sector in order to invest their best efforts for the benefit of their organisation. However, in order for performance appraisal to positively influence employee behaviour and future development, employees must experience positive appraisal reactions. The main aim of this research study is to examine the factors and determinants affecting employee performance, with particular emphasis on how performance is viewed and measured in the Brunei public sector. Among the main research objectives is the examination of the relationships and influence of independent variables; goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goals; fairness of the appraisal system; types of performance evaluation measures; format of rating scales; appraiser-appraisee relationship and credibility of appraiser; in-group collectivism; power distance, and pay-for-performance - to a dependent variable, which is satisfaction with the performance appraisal system. These exogenous (independent) elements were explored from the perspectives of employees with regards to how performance is viewed and measured in the context of the Brunei public sector.

In alignment with the research objectives and, subsequently, the research questions, the researcher adopted a mixed method approach. The researcher explored the concepts of interest from the existing literature in order to develop measurement scales. To generate

and confirm the items' construct with regard to the research context, a qualitative study was conducted in Brunei. Through the use of both semi-structured and open-ended interviews, the researcher not only confirmed the measurement scales, but also gained a deeper understanding of the topic and a comprehending of the constructs in the conceptual model. A pilot study was then conducted in order to gather data for purifying the measurement scales, as well as to ensure their validity. This main study was conducted and data analysis performed using SPSS and AMOS software through two rounds of data reduction, exploratory factor analysis and confirmatory factor analysis. Finally, structural equation modelling technique was employed to test the model fit of the data.

With regards to both qualitative and quantitative findings, the research has pursued relevant research questions and hypotheses which have raised several questions about the possible effects of the current performance appraisal system used in the Brunei public sector, as well as the implications for both theory and practice. The summary of both qualitative and quantitative findings mapped out to the four relevant research questions and the related hypotheses is presented in Table 8.1. This table indicates that both the qualitative and quantitative findings mapped out well with the respective research questions and relevant hypotheses.

Table 8.1: Comparing and Contrasting Qualitative and Quantitative Findings against the Research Questions (developed by the researcher)

Research Question (RQ)	Summary of Quantitative Findings	Summary of Qualitative Findings
<p><b>RQ.1</b> What are the antecedent variables that may affect the perception of an accurate individual performance appraisal system?</p> <p><b>RQ.2</b> How does individual performance appraisal relate to individual appraisal satisfaction?</p> <p><b>RQ.4</b> How effective is the current performance appraisal system in the public service of Brunei Darussalam with regards to measuring employee performance and achieving organisational goals?</p>	<p><b>H1:</b> Goal-Setting and the Purposes of Performance Appraisal are significantly and positively related to satisfaction with the performance appraisal system <b>[Supported]</b></p> <p><b>H2:</b> The alignment of personal objectives with organisational goal is significantly and positively related to satisfaction with the performance appraisal system <b>[Supported]</b></p> <p><b>H3:</b> Perceived fairness of the Appraisal System is significantly and positively related to satisfaction with the performance appraisal <b>[Supported]</b></p> <p><b>H4:</b> The type of performance evaluation measures used in employee performance appraisal is significantly and positively related to the satisfaction with the performance appraisal system <b>[Supported]</b></p> <p><b>H4a:</b> Objective performance appraisal is a better representation of employee performance than subjective performance appraisal <b>[Supported]</b></p> <p><b>H4b:</b> Subjective or traits-based performance evaluation is not a reliable indicator of employee's actual performance <b>[Supported]</b></p> <p><b>H4c:</b> Team-based measures are a better representation of employee performance appraisal than individual-based measures. <b>[Not Supported]</b></p> <p><b>H5:</b> The format of rating scales used is significantly related to the satisfaction with the performance appraisal system <b>[Supported]</b></p> <p><b>H6:</b> Appraiser - Appraisee Relationship and Credibility of Appraiser are significantly and positively related to satisfaction with the performance appraisal system <b>[Supported]</b></p> <p><b>H8:</b> The presence of pay-for-performance is significantly and positively related to satisfaction with the performance appraisal system <b>[Supported]</b></p>	<ul style="list-style-type: none"> <li>An accurate individual performance appraisal system encompasses a better performance management system, comprising of aspects such as (i) goal-setting and the purpose of the performance appraisal system; (ii) aligning personal objectives with organisational goals; (iii) having a fair appraisal system; (iv) deciding the appropriate types of performance evaluation measures; (v) deciding an appropriate format of rating scales; (vi) establishing relationship between appraiser and appraisee and maintaining credibility of appraiser; and (vii) introducing rewards initiatives such as pay-for-performance.</li> <li>All of the aspects form variables of individual performance appraisal that may link to individual appraisal satisfaction</li> <li>The current appraisal system has created some elements of dissatisfaction among employees and called for a change in the performance appraisal system.</li> </ul>
<p><b>RQ.3</b> Do in-group collectivism and power-distance dimensions of culture moderate the accuracy of individual performance ratings?</p>	<p><b>H7:</b> The extent of selected dimensions of culture will moderate the performance appraisal system <b>[Supported]</b></p> <p><b>H7a:</b> In-group collectivism will moderate the satisfaction with the performance appraisal system <b>[Supported]</b></p> <p><b>H7b:</b> Power distance will moderate the satisfaction with the performance appraisal system <b>[Supported]</b></p>	<ul style="list-style-type: none"> <li>The current appraisal system was seen as a common value attached to the working culture in Brunei Darussalam</li> <li>In-group collectivism and power-distance concept were seen as deterrents in establishing an accurate appraisal system</li> </ul>

## **8.3 INTERPRETATIONS OF CONSTRUCT ITEMS AND DISCUSSIONS OF HYPOTHESIS**

### **8.3.1 Perception of Current Appraisal System**

As previously mentioned in section 7.3.3.1, there are different performance appraisal forms used by public sector employees in Brunei, according to job grades, three each for Grade I and II, Grade III and IV and Grade V, and the appraisal form consists of the assessment of general and specific traits to evaluate employee performance. A five-point Likert scale, ranging from 'not important at all' (1) to 'very important' (5), was used, in which a mean score of 3 indicates neutrality. The findings from the questionnaires revealed that the mean scores for nine measured items for the assessment criteria in the current appraisal forms for Grade I and II (see Table 7.7) were between 4.20 ( $\pm 0.679$ ) and 4.81 ( $\pm 0.390$ ). This reflected the respondents' strong behavioural intention towards the importance of those general and specific criteria, such as job knowledge, attendance, work management, decision-making, innovativeness, communication, reliability, leadership and commitment. Similarly, the mean scores for nine measured items for the general and specific criteria, job knowledge, attendance, ability to finish work on time, work quality, communication, handling office equipment, ability to understand, commitment and behaviour, in the current appraisal forms for Grade III and IV (see Table 7.8) were between 4.20 ( $\pm 0.622$ ) and 4.69 ( $\pm 0.477$ ). As for Grade V, for each of the eight criteria listed (see Table 7.9), job knowledge, attendance, ability to finish work on time, handling office equipment, behaviour, ability to receive instructions from superior, interpersonal relations, and honesty and trustworthiness, the mean scores were 3.78 ( $\pm 0.975$ ) and 4.59 ( $\pm 0.499$ ). Despite the fact that, on average, more than 95% of the respondents across all grades (Grade I-Grade V) considered the general and specific criteria assessed in the current appraisal form as being very important and important, the perception of the current appraisal system gave a different picture.

The general findings from the questionnaires (see Table 7.10) indicated that 56.3% of the respondents agreed that 'the current format of rating scales used (using percentages in each criterion) in the appraisal forms is not an effective measure of employee performance'. About 57.7% of the respondents agreed that 'less time is spent on the appraisal process and that it is treated as a mere ritual by supervisors and subordinates', while only 46.2% agreed that 'the productivity of the workforce in this organisation has been improving as a result of the performance management system'. In addition, about 44.2% of the respondents agreed with the fact that their 'current performance appraisal system is very effective'. However, some of the findings were counter-intuitive. For

instance, 39.2% agreed that their 'performance criteria does not measure actual performance' while 41.4% said otherwise. Also, 54.1% of the respondents indicated that their 'current appraisal is done just for the sake of getting bonuses', as opposed to 36.1% who did not agree with the statement. The fact that there is a spread of opinion across public sector employees in Brunei may indicate that there is a need for a more thorough study in this matter.

In summary, based on the findings of this study, the fact that the current performance appraisal system in the Bruneian context is a subjective, trait-based system, indicates that it assesses the degree to which someone possesses certain desired personal characteristics deemed important for the job (see Table 3.3 in Chapter 3). Each trait is given a rating ranging from 0% to 100%. Within each trait, there is no specific scale and the appraiser is free to rate the appraisee subject to his/her discretion. The marks for each trait are then added together and converted to a percentage, which subsequently gives the overall rating using a six-point rating. The findings from the main quantitative studies appear to support the general findings derived from the qualitative interviews, in particular the ineffectiveness of the current appraisal system, as two interviewees clearly pointed out:

*"In my opinion, the current appraisal is not an effective measure of performance as the appraisal criteria being assessed is very general" – INT 13*

*"The current performance appraisal system does not measure my own capability in carrying out my work in terms of commitment and effectiveness" – INT 6*

This has proven to be unacceptable, as indicated by the study findings, in terms of fairness of the appraisal system, which further suggests that management needs to decide on the best types of performance evaluation measures. In addition, findings from both the qualitative and quantitative studies indicated that the current performance appraisal system has created some elements of dissatisfaction among employees, as seen from the previous qualitative interview extracts in Chapter 6; in particular, the views expressed by interviewees INT 2, INT 4, INT 13, INT 6 and INT 9. This is further supported by quantitative findings from survey questionnaires in which the majority of the respondents were undecided (neutral) as to whether they were 'fully satisfied with their current pay' and 'fully satisfied with the criteria used in the current appraisal system', wherein the mean scores were 3.47 ( $\pm 1.019$ ) and 3.47 ( $\pm 0.997$ ), respectively.

In addition, one of the main problems facing performance appraisal systems in Brunei is that performance appraisal is seen just as a formality and sometimes not taken seriously. One common feature is that the appraisal outcome is rarely fed back to the appraisee in qualitative comments and is seldom used for training and development purposes. This is partly because line managers are reluctant to provide negative feedback to subordinates in order to avoid creating resentment and resistance in staff concerned, which may further impede motivation and performance. Avoiding criticism of bad behaviour reflects the *Malay* culture of neutrality, which leads to the tolerance of poor performers and may also demotivate good performers.

### **8.3.2 Perceived Employee Performance**

When respondents were asked about the importance of the general aspects in determining performance appraisal satisfaction in their organisation, Table 7.22 in chapter 7 indicates that *fairness of the appraisal system* (mean=4.59) was ranked highest, followed by *appraiser-appraisee relationship and credibility of appraiser* (mean=4.38), *goal-setting and the purposes of performance appraisal* (mean=4.34), *pay-for-performance* (mean=4.23), *alignment of personal objectives with organisational goals* (mean=4.14) and *format of rating scales* (mean=4.09) with *types of performance evaluation measures* (mean=4.02) as the least important. These initial findings indicated that the proposed variables of the employee performance appraisal system were consistent with the respondents' perception of an effective performance appraisal system. These were further supported by qualitative findings from the interview extracts, as seen in Chapter 6, as the following sections indicate.

#### **8.3.2.1 Fairness of the Appraisal System**

The fact that perceived fairness of the appraisal system came up as the most important issue in the appraisal system linked with some of the interviewees' responses:-

*"PA needs to be researched thoroughly, fairly and justly, and not based on personal relations. There is a need to assess the true value of work of an individual. An assessor needs to be as honest and as fair as possible" [INT 9].*

*"The PA system in this department is not satisfactory in which I was assessed based on the previous performance. Where is the fairness in the appraisal system?"...A supervisor needs to assess professionally and not base on good interrelations between supervisor and supervisee only" [INT 14].*

Fairness of performance appraisal as an important criterion in judging performance appraisal effectiveness has been identified in many studies (Landy, *et al.*, 1978; Jacobs, *et al.*, 1980; Fulk, *et al.*, 1985, Greenberg, 1986; Evans and McShane, 1988; Dobbins, *et al.*, 1990; Taylor, *et al.*, 1995). Research in this area was also encouraged by the findings of Lawler (1967) that employee beliefs about fairness of the performance appraisal system were an important influence on the ultimate success of any performance appraisal system, because perceived fairness was linked to confidence in and hence, acceptance of the performance appraisal system (Kavanagh, *et al.*, 2007). In addition, Robertson and Stewart (2006) found a positive relationship between fairness and motivation to improve, indirectly linking fairness and performance. Accordingly, based on the literature (Greenberg, 1993; Thurston, 2001) as well as qualitative data, the researcher developed a three-items scale for measuring the construct 'fairness of the appraisal system' (FAS). Although Greenberg's initial definition of perceived fairness as consisting of the three components of distributive, procedural and interactional fairness (Greenberg, 1986; 2004) may not be fully captured in this research study, the scale nevertheless showed a satisfying Cronbach's alpha of 0.777, thus indicating good internal consistency (Cronbach, 1951; Hair, *et al.*, 2010). Moreover, exploratory factor analysis (EFA) showed all three items loaded significantly on the expected factor (FAS 1- 0.646; FAS 2- 0.877 and FAS 3- 0.826).

In order to further examine this variable, confirmatory factor analysis was carried out and confirmed the same factors loaded on perceived fairness of the appraisal system variable. The findings were measured for perceived fairness of the appraisal system's relative influence to predict employee satisfaction by applying a beta ( $\beta$ ) coefficient. The outcome revealed a positive and significant relationship between perceived fairness of the appraisal system and satisfaction with the performance appraisal system. The  $\beta$ -coefficient of perceived fairness of the appraisal system ( $\beta=0.201$ ;  $t=8.421$ ,  $p<0.001$ ) highlights the positive and significant input to satisfaction with the performance appraisal system. Thus, the findings of the current study support H3 (perceived fairness of the appraisal system is significantly and positively related to satisfaction with the performance appraisal system) and highlight the importance and need for an appraisal system be as fair as possible, which will then linked to confidence in and, hence, acceptance of the performance appraisal system.

### **8.3.2.2 Goal-Setting and the Purposes of Performance Appraisal**

The findings revealed that the mean scores for three measured items in a five-point Likert scale for goal-setting and the purposes of performance appraisal were between 4.28 ( $\pm 0.581$ ) and 4.40 ( $\pm 0.565$ ), which reflected participants' strong inclination towards goal-setting and the purposes of performance appraisal. Item GSP3, stating that 'Performance management should be focused on development of employees', was rated highly, while item GSP1, 'An important aspect of performance management is the setting of goals', was rated just a little bit low (see Table 7.13 in Chapter 7). Nevertheless, the average mean score of these items was above the neutral point. The high ratings of items GSP1, GSP2 and GSP3 indicated that goal-setting and purposes in the performance appraisal system are equally as important. The Cronbach's alpha coefficient for this composite construct was 0.729 (as shown in Table 7.29), which suggests good internal consistency of the measurement items of the goal-setting and the purposes of performance appraisal construct. The results further revealed a positive and significant relationship between goal-setting and the purposes of performance appraisal and satisfaction with the performance appraisal system. The  $\beta$ -coefficient of goal-setting and the purposes of the appraisal system ( $\beta=0.199$ ;  $t=7.181$ ,  $p<0.001$ ) confirmed hypothesis H1 that Goal-Setting and the Purposes of Performance Appraisal is significantly and positively related to satisfaction with the performance appraisal system.

The significant and positive effects of goal-setting on satisfaction with the appraisal system supports the theory of goal-setting, which suggests that appraisal criteria, performance goals and the purposes of performance appraisal should be clear and understandable, so as to motivate the appraisee, otherwise the appraisee would not know what to work towards (Locke and Latham, 2002). Locke and Latham (1990) further highlighted that the reason why goal-setting typically has a positive effect on performance is that a specific high goal affects choice, effort and persistence in otherwords, a specific goal or target increases a person's focus on what is to be accomplished as opposed to putting it off to a later date. This theoretical framework suggests that goals affect performance via the arousal, direction and intensity of behaviour and that goals affect performance by directing attention to the task as well as by increasing effort and persistence. The research findings were also consistent with previous findings by Sawyer (1992) in which goal clarity was positively related to job satisfaction.



### 8.3.2.3 Types of Performance Evaluation Measures

The types of performance evaluation measures was measured using a three-items scale in which the mean score was between 3.69 ( $\pm 0.927$ ) and 4.26 ( $\pm 0.658$ ), which reflected participants' inclination towards types of performance evaluation measures. The Cronbach's alpha indicated a satisfying value of 0.687, indicating a good internal consistency (Cronbach, 1951; Hair, et al., 2010). The result of exploratory factor analysis (EFA) showed that all three items loaded significantly on the expected factor (TEM 1- 0.783; TEM 3- 0.762 and TEM 2- 0.714). The quantitative results seemed to tie in with findings of qualitative interviews which indicated that the ineffectiveness of the current appraisal system may be due to the types of evaluation measures being used, which do not seem to measure the actual performance of employee, as one interviewee commented:

*"The current appraisal system does not actually measure the actual performance, in the sense that the appraiser simply puts a certain percentage next to the assessed criteria without actually specifying what the criterion is supposed to measure. I remembered that there is a widely used system in the education sector called the 'rubric scoring system' in which a scoring rubric is a set of criteria or standards related to learning objectives. Just to expand further, if, for instance, a teacher achieves a certain goal, he/she will be given a certain score or rating. So, in a way, the current appraisal system is subjective rather than objective, as it measures people's knowledge and skills, which is sometimes hard to quantify, and not so much the objective aspect, such as student's passing rate and so on" [INT 13].*

The outcome from quantitative studies further revealed a positive and significant relationship between types of performance evaluation measures and the satisfaction with the performance appraisal system. The value of  $\beta$ -coefficient for this construct is 0.180 and t-value of 7.826, with  $p < 0.001$  further supporting the initial hypothesis of H4 in which 'the type of performance evaluation measures used in employee performance appraisal is significantly and positively related to satisfaction with the performance appraisal system'. Consequently, hypothesis H4a, which stated that 'objective performance appraisal is a better representation of employee performance than subjective performance appraisal', is supported with values of  $\beta = 0.332$ ;  $t = 8.116$ ,  $p < 0.001$ . In addition, hypothesis H4b, which hypothesised that 'subjective or traits-based performance evaluation is not a reliable indicator of employee's actual performance', is also supported with values of  $\beta = 0.227$ ;  $t = 5.471$ ,  $p < 0.001$ . However, the results indicated that the p-value for hypothesis H4c, which is 'team-based measures are a better representation of employee performance appraisal than individual-based

measures', is not significant (p-value of 0.377) with values of  $\beta=0.035$  and  $t=0.844$ , and, thus, hypothesis H4c is rejected. The fact that H4a and H4b are supported is consistent with previous studies by researchers such as Dess and Robinson (1984), Pearce, *et al.* (1987), Robinson and Pearce (1988), Dollinger and Golden (1992), Powell (1992), Bommer, *et al.* (1995) and Delaney and Huselid (1996), which indicated that measures of perceived performance correlated positively with moderate to strong associations with objective measures of performance.

#### **8.3.2.4 Alignment of personal objectives with organisational goals**

The results indicated hypothesis H2, which stated that there is a significant and positive relationship between alignments of personal objectives with organisational goal and satisfaction with the performance appraisal system, is supported with  $\beta=0.235$ ;  $t=8.663$ ,  $p<0.001$ . The findings also revealed that the mean scores for four measured items in a five-point Likert scale for alignment of personal objectives with organisational goals were between 4.01 ( $\pm 0.600$ ) and 4.23 ( $\pm 0.600$ ), which reflected participants' strong inclinations towards alignment of personal objectives with organisational goals. Item APG1, stating that 'objectives need to be set at the beginning of the year in alignment to my organisation's strategy', and APG4, which was 'appraisal information form measures of departmental objectives', were both rated highly. On the other hand, items APG2 ('an effective performance appraisal system is an important indicator of the effectiveness of employee performance') and APG3 ('individual performance should be align to organisational mission and objectives') were rated a bit low (see Table 7.14 in Chapter 7); nevertheless, the average mean score of these items was above the neutral point. The high ratings of items APG1, APG2, APG3 and APG4 indicated that alignment of personal objectives with organisational goals is equally as important as all the other independent variables. In addition, Cronbach's alpha coefficient for this composite construct was 0.761 (as shown in Table 7.29), which suggests good internal consistency of the measurement items of alignment of personal objectives with the organisational goals construct. In addition, the result of exploratory factor analysis (EFA) showed that all four items loaded significantly on the expected factor (APG1- 0.695; APG2- 0.721; APG3- 0.764 and APG4- 0.738). The confirmatory factor analysis (CFA) further confirmed the same factors loaded on variables concerning the alignment of personal objectives with organisational goals.

### 8.3.2.5 Format of rating scales

The findings from qualitative study indicated that some interviewees commented on having a better format of rating scales that incorporated specific assessment criteria. Interviewee 4 suggested that *"the current appraisal system is not fair and difficult to decide the actual mark/grade as most of the criteria given are not detailed out, there is no guideline to assess the criteria as well as being very subjective"*. As far as the rating scales format is concerned, there is no specific format of rating scales being used in Brunei's civil service, for example, the widespread use of graphic ratings scale (GRS), behaviourally anchored rating scales (BARS) or behavioural observation scales (BOS). Currently, there are three different performance appraisal forms each for Grade I and II, Grade III and IV, and Grade V, and the appraisal criteria consists of general and specific criteria and traits. The general criteria or traits are mostly based on the employee's personality or attitude and do not reflect much on the outcome or work productivity. Each criteria or trait is given a rating ranging from 0% to 100%. Within each criteria or trait, there is no specific scale and the superior or appraiser is free to rate the appraisee to his/her discretion. Thus, this indicates that the performance appraisal form itself is not properly designed in that it does not incorporate specific format of rating scales such as GRS, BARS or BOS.

The format of rating scales was measured using a three-items scale in which the mean score was between 4.00 ( $\pm 0.704$ ) and 4.22 ( $\pm 0.643$ ), which reflected participants' inclination towards a proper format of rating scales. The composite Cronbach's alpha indicated a satisfying value of 0.747, demonstrating a good internal consistency (Cronbach, 1951; Hair, *et al.*, 2010). All three items loaded significantly on the expected factor (RSF1- 0.794; RSF2- 0.776 and RSF3- 0.650), as indicated by the results of exploratory factor analysis (EFA) in Table 7.26 (see Chapter 7). The outcome from hypothesis testing further revealed a positive and significant relationship between format of rating scales and satisfaction with the performance appraisal system. The value of  $\beta$ -coefficient for this construct is 0.154 and t-value of 6.563 with  $p < 0.001$ , further supporting the initial hypothesis of H5 in which 'the format of rating scales used in employee performance appraisal is significantly related to satisfaction with the performance appraisal system'.

### 8.3.2.6 Appraiser-appraisee relationship and credibility of appraiser

Murphy and Cleveland (1995) discussed and distinguished between judgments an appraiser might make about an employee's performance, and the ratings that they might give. The difference between judgments and ratings is due to a number of factors, but one is certainly the appraiser and appraisee relationship and the issue of bias and favouritism. Is bias based on collectivism and family ties more acceptable in the Bruneian context, and the public sector in particular? The current performance appraisal system is viewed as not being effective, as some interviewees agreed that the appraiser or supervisor may not assess their employees accurately, commenting as follows:-

*"A supervisor needs to assess professionally and not base on good interrelations between supervisor and supervisee only" [INT 14].*

*"A supervisor needs to assess his supervisee honestly. The assessment must be based on the given task and responsibilities and not be influenced by other factors such as interpersonal relationship between supervisor and supervisee..." [INT 7].*

*"What I can gather is that most performance appraisal is not based on objectives, but rather on personal relationship between supervisor and supervisee. What I mean is that a person may not know how to operate a computer, but he/she is given a higher grade by the previous supervisor. This may be due to the fact that it may create disharmony or tension between people" [INT 8].*

The quantitative results further supported these findings, wherein most respondents agreed that 'appraiser should have enough time to observe and evaluate appraisee (ARC2)' [mean of 4.42 ±0.564], 'appraiser and appraisee should jointly develop the performance goals (ARC3)' [mean of 4.42 ±0.564] and that 'appraisee should openly discuss his/her job problems with the appraiser (ARC4)' with a mean of 4.44 and standard deviation (SD) of 0.525. By applying exploratory factor analysis using SPSS, the three items loaded significantly on the expected factor (ARC3- 0.795; ARC4- 0.784 and ARC2- 0.618). Applying confirmatory factor analysis (CFA) further confirmed the same factors loaded on variables concerning the appraiser-appraisee relationship variables. This appeared to confirm that public sector employees in Brunei are concerned that the relationship between appraiser and appraisee in evaluating employees' performance needs to be addressed professionally, and not be solely based on interpersonal relationships.

The results were assessed for the relative influence of ARC2, ARC3 and ARC4 on satisfaction of employee performance appraisal by their standard coefficients ( $\beta$

coefficient) (Table 7.32). The results indicated a positive prediction to the dependent variable, satisfaction with the employee performance appraisal system. A beta coefficient of the appraiser-appraisee relationship ( $\beta=0.219$ ,  $p<0.01$ ,  $t=9.234$ ) indicated a positive contribution to satisfaction with the employee appraisal system. This seemed reasonable, as, in the context of Brunei's public sector employees develop attitudes and behaviours with their superiors on the basis of interpersonal relationship. Stiggins and Bridgeford (1985) and Duke and Stiggins (1986) indicated in their research that it was important that employees trust their supervisors and appraisers and that there is a good relationship with their appraisers so that they will view the appraisal process as constructive and regard critical feedback positively. In previous research, appraiser-appraisee relationship and credibility of appraiser was assessed as to performance appraisal satisfaction (Klien, *et al.*, 1971; Landy, *et al.*, 1978 and Fulk, *et al.*, 1985) and positive results were found. In this research, the results thus supported hypothesis H6, which is the appraiser-appraisee relationship and credibility of appraiser are significantly and positively related to satisfaction with the performance appraisal system.

### **8.3.2.7 Presence of Pay-for-Performance**

The introduction of pay-for-performance schemes has created mixed response as to how it may actually increase people's performance, especially in the context of the public sector. On the one hand, some interviewees supported the idea of having pay-for performance, with INT 9 commenting that *"there should be a performance-related pay...this will eventually motivate the employees to work well in their undertakings. Currently, as we know, there is no differentiation as to the amount of bonus pay received by an individual if he/she achieves grade A, B or C. This may generate complacency culture"*. Similarly, INT 7 suggested *"performance appraisal to be linked with an incentive scheme which is financially-based, especially for those who achieve an Excellent grade (Grade A) in their annual appraisal"*. This is further supported by the findings from the quantitative study in which 78.3% agreed with the fact that *'on top of the current appraisal system which is linked to annual bonus, there should be an incentive scheme in terms of performance-related pay for those who achieve Grade 'A' (Excellent) in their annual appraisal'*. In addition, a staggering 91.3% of respondents indicated that *'recognition and rewards are based on merit in my work unit'*. However, there are also some contradictions if pay-for-performance scheme is to be introduced, INT 3 and INT 5 commenting that it may create a culture where *"many employees will be given an 'A' grade by their supervisor so as to get the incentives, although, in actual fact, the person is not entitled to get such grade"*.

However, despite the debate, the underlying assumption is that when pay-for-performance schemes are correctly administrated, they will boost the efficiency of the public sector (see Kahn, *et al.*, 2001; Burgess and Ratto, 2003; Swiss, 2005; Lavy, 2007) and positively impact employees' motivation (Propper, 2006). Moon (2000) suggested that making a direct association between performance and financial reward would enhance the level of organisational commitment of public employees and eventually promote organisational effectiveness and job satisfaction. The outcome from quantitative studies revealed that hypothesis H8, which predicts that the presence of the pay-for-performance link mediates the relationship satisfaction with the performance appraisal system, is fully supported with  $\beta$ -coefficient of 0.138;  $t=6.579$  and  $p<0.001$ . The composite Cronbach's alpha indicated a satisfying value of 0.684, demonstrating a good internal consistency (Cronbach, 1951; Hair, *et al.*, 2010). The results of exploratory factor analysis indicated that the two items loaded significantly on the expected factors (PFP1- 0.766 and PFP2- 0.701). This result supported previous findings on the reward system, such as pay-for-performance schemes and its implications for organisational performance (Prendergast, 1999; Lazear, 2000; Brown, *et al.*, 2003; Weibel, *et al.*, 2009) on the premise that rewards influence the behaviour of individuals, which, in turn, leads to organisational performance. The main findings by many researchers, that "performance-related pay affects productivity positively" (Lazear, 1996), "performance-related pay affects employee motivation positively" (Dowling and Richardson (1997) and "pay for performance is positively related to employee trust and organisational commitment" (Appelbaum, *et al.*, 2000), have all been supported.

### **8.3.2.8 Cultural Variables**

The effects of national culture appear to moderate the level of satisfaction with the performance appraisal system among public sector employees. Findings from Blunt (1988), following his study of Hofstede's four dimensions of culture on government organisation in Brunei, indicated that Bruneians have the following cultural dimensions: high power-distance, strong uncertainty avoidance, low individualism and medium masculinity. His findings revealed that the characteristic nature of organisational culture in Brunei includes a preference for clearly laid out rules and regulations which should not be broken and for clear organisational structures which must be respected, a strong dislike of conflict and a preference for its avoidance, and disapproval of competition between employees (Ibid, 1988). These cultural characteristics have been considered to have an impact on the human resource practices that an organisation would utilise.

In fact, some of Blunt's findings are seen to be consistent with qualitative findings from several interviewees which indicated that the current appraisal system was seen to be a common value attached to work culture in Brunei, which does not want to create tension or disharmony among employees, as suggested by INT 10 and INT 11. For instance, the high power-distance in Brunei could be the reason for employees in the public sector being less open to and accepting of the performance appraisal process. As management style encourages less participation in high power-distance culture, a level of trust may not build up between appraiser and appraisee (Rousseau, *et al.*, 1998). Some authors (Doney, *et al.*, 1998; Shane, 1993) suggested that the criteria of control and trust are both influenced by the power-distance ratio. This means that, in a high power-distance culture such as Brunei, appraisals could be used as a control mechanism where there are lower levels of interpersonal trust owing to appraisals being more hierarchical and less participative, as suggested by Entekin and Chung (2001) and Chiang and Birtch (2007).

It is imperative that national culture and institutional environment influence or determine differences in value systems across societies. As such, it is very likely that managers and employees view performance differently in different cultures, thus leading to both inter-cultural and intra-cultural differences and different interpretations of performance. The findings from the quantitative studies indicated that, in terms of the 'power-distance' construct (see Table 7.20 in Chapter 7), respondents agreed that 'it is important to maintain harmony with my peers, subordinates and workers in my organisation (PWD1)' [mean of 4.50 ±0.607]. However, the other four items measuring power-distance were, in fact, counter-intuitive in such a way that they reached neutrality, as seen from the questionnaires; namely that 'employees should not disagree with management decisions (PWD2)' [mean of 3.00 ±1.152], 'management should make most decisions without consulting subordinates (PWD3)' [mean of 3.14 ±1.135], 'managers should not delegate important task to employees (PWD4)' [mean of 3.13 ±1.127] and 'it is frequently necessary for a manager to use authority and power when dealing with subordinates (PWD5)' [mean of 3.54 ±0.965]. This means that Blunt's findings of Bruneian employees being a 'high' power-distance society may raise a few questions as to its validity. This is further supported by interviewees who encouraged the use of a "*self-evaluation system*" (INT 9, INT 12 and INT 14), a "*coaching method of performance appraisal system*" (INT 10) and the use of a "*360 degree appraisal system*" (INT 5). The characteristics of having a more open and participative style of management is indicative of a lower power-distance society wherein, if they were from countries with lower power-distance ratio, an organisation would have a more decentralised decision-making system that stressed the importance of mutual communication (Hofstede, 2001). These results echo

the findings of these studies in that elements of trust are built up when conducting performance appraisal, as it adopts a more coaching and facilitating role.

With regards to 'in-group collectivism' constructs, as shown in Table 7.19 (in Chapter 7), the questionnaire results indicated that two of the four items measured for in-group collectivism agreed that 'group welfare is more important than individual rewards (IGC1)' [mean of 4.07  $\pm$ 0.871] and 'my performance appraisal is based on the quality and quantity of my work and not on my personality or position (IGC4)' [mean of 4.19  $\pm$ 0.827]. Conversely, items IGC2 ('group success is more important than individual success') and IGC3 ('supervisors give the same ratings to all their subordinates in order to avoid resentment and rivalries among them') were found to be in neutral position with means of 3.84 ( $\pm$ 0.953) and 3.40 ( $\pm$ 1.177), respectively. The outcome of these results indicated that Brunei may not be a collectivist society after all, as suggested by Blunt (1988). However, these research findings may need to be further examined, as individualism-collectivism, as defined by Hofstede (1988), is a multi-dimensional construct, which suggests for a more rigorous study needs to be undertaken.

In summary, the findings of the cultural dimensions in the Bruneian context may open up a key challenge of performance management practices as to the effect of the transition from 'high power-distance' to a 'lower power-distance' and from a 'collectivist' society to an 'individualist' one in the human resource management related practices which have spurred interest in the Asia Pacific Region, such as India, China, South Korea, Singapore and Vietnam. This transition may equate the need for managers to develop a new culture where performance-related incentives, such as promotion, pay and other organisational benefits, will be based on individual contributions rather than group characteristics. The fact that hypothesis H4c, which is 'team-based measures are a better representation of employee performance appraisal than individual-based measures', is not significant, and thus rejected, suggested a need for more individualised contributions, which is typical in an individualist society. How to achieve an effective and successful change to individual-based human resource management practices, such as performance appraisal, within the traditional Bruneian culture of in-group collectivism is a major challenge for all managers and policy makers.



#### **8.4 DISCUSSION OF FACTOR ANALYSIS AND MODEL FIT**

To test the research hypothesis, the results of the exploratory factor analysis (EFA) regarding the factorial structure of the satisfaction component and other variables in the hypothesised model revealed that all items loaded on the expected factors. The average variance extracted (AVE) percentage (see Table 7.28 in Chapter 7) for any two factors was greater than the square of the inter-construct correlations, which was over 0.5, and the reliability test for most variables exceeded 0.7. In addition, the eigenvalues and the scree test suggested that eight is the appropriate number of factors, which, together, explains 59.644% of the variance. In addition, the nomological net of satisfaction with the appraisal system and the set of the hypothesised relations among the variables demonstrated that the relationships found matched the relationship in the hypothesised model. These results thus support the prediction that these constructs are related to one another. This provides sufficient ground for the convergent validity of the constructs of the dependent and independent variables.

The results of the confirmatory factor analysis (CFA) of the independent variables of goal-setting and the purposes of performance appraisal, alignment of personal objectives with organisational goals, fairness and clarity of the appraisal system, types of performance evaluation measures, rating scales format, appraiser-appraisee relationship and credibility of appraiser and presence of pay-for-performance showed convergent and discriminate validity. The factor loadings were good and the fit indices for the variables were significant (see Tables 7.26 and 7.34). The CFA of the measurement model fit indices generated the recommended values. The results provided evidence of the internal consistency among the factors. The reliability of the measurement model was also evaluated by using the average variance extracted (AVE), as Fornell and Larcker (1981) suggested that AVE should be an indicator of the overall convergent validity of a subscale and the value should exceed 0.50. The final result indicated that the model offered an acceptable fit, particularly given its RMSEA of 0.070 and CFI of 0.900, suggesting that the hypothesised model reasonably fits Brunei's civil service data.

#### **8.5 KEY SUMMARIES AND SYNTHESIS OF DISCUSSION**

It appears, from both the qualitative and quantitative findings that the performance management system is literally a new concept in Brunei and that employee performances are not properly managed and measured. The present performance appraisal system seems to have more weaknesses than strengths and is often done as a

piecemeal approach, which is not integrated and linked with the organisational goals and missions of ministries and departments. The appraisal system is based on the annual performance appraisal form, which is subjective and based on individual behaviours and traits only. These core traits cover aspects such as knowledge of the job, punctuality, work management, decision-making, innovativeness, communication skills, reliability, leadership and commitment. For the performance appraisal system to become an effective management tool in the civil service of Brunei Darussalam, there is a need to review the various issues and challenges related to the implementation of performance appraisal in the civil service in the areas identified as follows:

*a. Performance Appraisal not Linked and Integrated*

The current Performance Appraisal system does not actually result in significant improvement in the overall performance or productivity of the civil service, despite more than 95% of the civil servants being in the 'Good (C)' category (Public Service Department, 2005). One reason is that it is a 'stand-alone' tool, which is not horizontally and vertically linked and integrated to the organisation. It should be horizontally integrated with other HR processes such as rewards management, recruitment and selection, training and development, talent management, succession planning and career development. It should also be vertically integrated with the strategic planning and organisational goals of the ministries or departments. The concept of a performance management system rather than a performance appraisal system should be implemented holistically.

*b. Performance Appraisal Form-Oriented*

Performance appraisal is seen to be an annual event rather than process-oriented. The most visible component of the performance appraisal system is the annual appraisal event and the appraisal form. The form seems to be the driver of the entire performance management system. The focus is on rating the person, but not so much on improving the performance.

*c. Core Traits in the Performance Appraisal Form*

The performance appraisal form generally lists about nine core traits. However, there is a tendency for the traits to be not weighted accordingly. All traits are measured as equally important. No distinction is given according to the priority of the core business of the organisation and the responsibilities of the individual employees. In general, the performance appraisal is only measuring the level of performance of the civil servants and not the performance of the individual organisation and civil service as a whole. Also,

assessing the output and effectiveness of public sector organisations is much more complex than with the private sector. In the health and educational fields, for instance, there are large concentrations of professional staff organised in structures that have few hierarchical levels and where the concept of *management* is somewhat alien.

*d. Seasonal Appraisal*

Most of the departments carried out the staff appraisal just for the sake of fulfilling the requirement of the core agency in the Brunei government (in this case, the Public Service Department for service record updates and the Treasury Department for bonus payment purposes). This activity is carried out seasonally, usually in September or October every year, and is usually performed in the stages mentioned earlier.

*e. Lack of Performance Planning*

A performance plan is not usually established. The implication of this is that the measures are not clearly defined, which makes the process of appraisal just another routine activity. This does not help to establish a performance gap. Unless this can be established, there is no effective intervention. A performance gap analysis must be done in any performance-related activity.

*f. Characteristic-defined Event*

The performance appraisal form established certain traits linked more to personal character rather than to performance-related. This is due to the fact that such a system is cumbersome and measures very generic undefinable characteristics, as well as having behavioural barriers such as the halo and horns effect, leniency, bias and the recency effect.

*g. Lack of Development Plan*

The corrective intervention that derives from a performance appraisal meeting is not a developmental plan, but rather a training program. Training is not the only way to improve performance. There are many other ways, such as job rotation, assigning a mentor or coach and international or regional exposure to help to improve performance.

*h. Performance-related Pay and Variable Pay*

Currently, the performance appraisal systems give the staff bonuses as a reward at the end of the year. Depending on the division and salary scale, a government employee will receive (i) 50% of the gross salary for Division I, (ii) 100% of the gross salary for

Division II or (iii) 150% of the gross salary scale for Division III, V and V or Daily Paid category. On top of which, those employees with Grade A to D (Excellent to Satisfactory) will receive 100% of the bonus and Grade E (Needs Improvement) will receive 50% while Grade F (Unsatisfactory) will receive 0%. Due to its leniency in the award of annual bonuses, there is a perception among Brunei civil servants that the appraisal system is biased, unfair and does not reflect the true measure of individual performance. Given the fact that the performance criteria are fully subjective and based on individual traits and personality, it is more likely that it does not reflect the actual overall performance of the civil servant. Since it is difficult to define personality characteristics, subordinates may become suspicious, if not resentful, especially since this technique has little value for the purpose of performance improvement. Human traits are, after all, relatively stable aspects of individuals. However, this is not to suggest that vivid personal traits are not important in employee performance; people can hardly perform without them. Indeed, the use of flexible, subjective criteria seems inevitable, especially for ambiguous managerial jobs. The problem is valid measurement. When used with accurate job descriptions and trained evaluators, such ratings may become more credible.

Furthermore, the fact that each criteria (see Table 3.4 in Chapter 3) has an open rating scale from 0% to 100% shows that the superior is not able to rate his/her employee accurately, as it is fallible and based only on impression and judgement. As Lawler (1986) indicated, subjective performance measures may be tainted with 'leniency' error or 'halo' error; this may also be the case of performance measures in the Bruneian context. The findings so far have been that, despite about 99% of the civil servants (PSD Annual Report, 2005) having performance ratings of 'good' and above, there has not resulted significant improvement in the overall performance or productivity of the civil service (Yassin, 2006). Given that individual job performance is a multi-faceted and complex construct, it may not be accurately captured with subjective assessments or aggregation of performance; therefore, it is important to rely on multiple objective indicators of performance. As such, the current performance appraisal system in Brunei is considered to be ineffective.

In summary, there is no mechanism to reward those employees who have excelled well in their work and this seems to be an unfair practice which could reduce motivation and not cultivate a performance-based culture within the civil service. It is time for new performance-related rewards system, tied in with performance-related pay and variable

pay, to be introduced in the civil service so as to establish a performance-based culture and meritocracy.

*i. National and Organisational Culture*

The concept of Malay Islamic Monarchy forms the basis of social and political life in the Sultanate of Brunei and the country is deeply influenced by a dominant Malay culture, one shared by Malaysia, Indonesia and Singapore. Some authors (Crouch, 1996; Mastor, *et al.*, 2000; Mohd Salleh, 2005) have portrayed Malay culture as 'being polite, self-effacing and avoiding open conflict wherever possible'. For the author, it is interesting to examine how this notion of Malay culture, which is embedded in the very fabric of Brunei society of collectivism and high power-distance society (Blunt, 1989), may have an impact on human resource practices such as performance management. With about 30% of the Bruneian population working in the public sector (DEPD Brunei, 2008), of which most are Malays, it serves as the biggest formal employer in Brunei.

In the context of government organisations in Brunei Darussalam, following his study of Hofstede's four dimensions of culture, Blunt (1988) found that Bruneians have cultural dimensions as follows: high power-distance, strong uncertainty avoidance, low individualism and medium masculinity. The characteristic nature of organisational culture in Brunei seems to prevail - a preference for clearly laid out rules and regulations which should not be broken and for clear organisational structures which must be respected, a strong dislike of conflict and a preference for its avoidance and disapproval of competition between employees.

Due to Brunei's small population, one should expect Bruneian culture to rely on close-knit kinship relationships and interlocking and tightly woven in-groups. In Brunei, people are born into collectives - extended family, ethnic groups, village, districts - and join or belong to collective organisations as they grow to maturity. Usually, the group protects the interests of its members and, in turn, requires members to look after the interests of his or her group and to share the group's opinions and beliefs. Thus, one may expect that the organisational consequences of low individualism in Brunei to include clear evidence of policies and practices that vary according to personal relationships between individuals and which are based on loyalty and a sense of duty, and also promotion based on seniority rather than performance or effectiveness. This may affect the performance appraisal in the sense that real assessment is not properly carried out.

## **8.6 CHAPTER SUMMARY**

This chapter discussed the results of both the qualitative and quantitative study findings and that these have been integrated accordingly. The predicted relationships of key independent variables with the dependent variable, as proposed in the conceptual framework, indicated a significant relationship between the construct items. The findings and the justifications of the revealed relationships were further discussed by revisiting the research instrument and considering the possible impact of the scope of measures adopted. The outcomes of the hypotheses testing were further discussed in a coherent way. The key synthesis of the discussion revealed that the current performance appraisal system in Brunei's public sector does possess weaknesses and that this study is one platform to address those issues. The next chapter discusses the implications of the research in theoretical and managerial areas, as well as highlighting the limitations of the research. Finally, other possible research directions are also suggested.

## **CHAPTER NINE: CONCLUSIONS AND RECOMMENDATIONS**

### **9.1 INTRODUCTION**

This research study was carried out because performance management is a new concept in Brunei and there is little evidence to indicate whether performance management is well-managed in the public sector. The thesis was aimed at examining the factors and determinants affecting satisfaction with the employee performance appraisal system, with particular emphasis on how performance is viewed and measured in Brunei's public sector. The main conclusion drawn from the literature reviews indicated that, even though performance appraisal satisfaction is the most frequently measured appraisal reaction, there are relatively few meta-analysis studies that link determinants of appraisal system to satisfaction with employee performance. The emerging issues arising from the gap in the literature prompted the use of both qualitative and quantitative methods for this study. By collecting qualitative data through interviews, as well as quantitative data from questionnaires distributed among public sector employees in Brunei, a triangulated research approach was followed. The first qualitative phase enabled the researcher to develop a theoretical framework, which was then tested in a subsequent quantitative stage through a survey questionnaire. The study employed exploratory factor analysis, confirmatory factor analysis and structural equation modelling techniques to analyse the collected data, which revealed satisfactory psychometric properties.

The summary of the main research objectives as mapped out to the key findings for this research is shown in Table 9.1. The underpinning and evolving theories of performance management, such as equity, expectancy, procedural justice and goal-setting theories, seemed to be relevant to the context of this research, which, in this case, is Brunei's civil service. These theories greatly related to the motivational aspect of individual employees, which, in turn, related to the perceived increase in performance appraisal satisfaction and, ultimately, performance effectiveness. The findings of this research indicated that an accurate individual performance appraisal system encompasses a better performance management system comprising of such aspects as (i) goal-setting and the purposes of the performance appraisal system; (ii) aligning personal objectives with organisational goals; (iii) having a fair appraisal system; (iv) deciding the appropriate types of performance evaluation measures; (v) deciding an appropriate format of rating scales; (vi) establishing relationship between appraiser and appraisee and maintaining credibility of appraiser, and (vii) introducing rewards initiatives such as pay-for-performance. This was further tested in the conceptual framework, which is used

to explain the selected independent and dependent variables that may influence the performance appraisal system and, ultimately, the effectiveness of employee performance among public sector employees in Brunei. The findings from the conceptual framework presented a good and plausible model fit to the Brunei data, with the chi-square test significant as well as the RMSEA, AGFI, GFI, NFI and CFI values. Structural equation modelling results indicated that all hypotheses (H1, H2, H3, H4, H4a, H4b, H5, H6, H7, H7a, H7b and H8), except for hypothesis H4c, were statistically significant, and thus accepted. This indicated that, in light of the cultural dimensions in the Bruneian context, western-developed theories can be applied in Brunei. In light of these findings, it is crucial for the current appraisal system in the public sector to be reviewed and the concept of performance management system to be incorporated in Brunei's public services. Such change needs top management initiatives and interventions, and the performance management processes need to be cascaded down to line managers and supervisors as well as employees.



Table 9.1: Summary of main research objectives mapped out the key findings of the research

<b>Main Objectives</b>	<b>Summary of Key Findings</b>
i. To identify the rationale and theoretical perspectives of performance management; their applications and limitations, particularly within the public sector domain;	The evolving theories of performance management encompass various issues, such as goal-setting, self-efficacy, expectancy and reinforcement theories, and these theories relate very much to the motivational aspect of individual employees, which, in turn, relate to the perceived increase in performance appraisal satisfaction and, ultimately, performance effectiveness. Performance appraisal satisfaction is considered the most consequential among all the variables that measure reactions to appraisal feedbacks. Despite its importance, it is often neglected in the public sector due to its complexity.
ii. To examine the attributes of the performance appraisal system used in evaluating individual employee performance in the public sector of Brunei Darussalam;	An accurate individual performance appraisal system encompasses a better performance management system comprising of such aspects such (i) goal-setting and the purpose of performance appraisal system; (ii) aligning personal objectives with organisational goals; (iii) having a fair appraisal system; (iv) deciding the appropriate types of performance evaluation measures; (v) deciding an appropriate format of rating scales; (vi) establishing relationship between appraiser and appraisee and maintaining credibility of appraiser, and (vii) introducing the rewards initiatives such as pay-for-performance.
iii. To develop a conceptual framework of how employees across all levels in the public sector of Brunei develop their attitudes and behaviours regarding performance evaluation methods in the public sector;	The conceptual framework model is used to present and explain the selected independent and dependent variables that may influence the performance appraisal system and, ultimately, the effectiveness of employee performance among public sector employees in Brunei. Research hypotheses are developed and related to goal-settings, alignment of personal objectives, types of performance evaluation methods, formats of rating scales, appraiser-appraisee relationship, performance-related pay and selected dimensions of culture. From the review of literature and, based on the author's findings, the majority of studies in the past literature have placed little emphasis on these determinants, particularly in the public sector context.
iv. To test the conceptual framework in Brunei and determine the extent towards which western-developed theories can be applied in a developing country;	The conceptual framework presented a good and plausible model fit to the Brunei data with the chi-square test is significant as well as the RMSEA, AGFI, GFI, NFI and CFI values. Structural equation modelling results indicated that all hypotheses (H1, H2, H3, H4, H4a, H4b, H5, H6, H7, H7a, H7b and H8), except for hypothesis H4c, were statistically significant, and thus accepted. This indicated that, in the light of cultural dimensions in the Bruneian context, western-developed theories can be applied in Brunei.
v. To draw out key practical recommendations and approaches for a better performance measurement system in Brunei's public service.	It is crucial for the current appraisal system in the public sector to be reviewed and the concept of performance management system to be incorporated in Brunei's public services. Such change needs top management initiatives and interventions, and the performance management processes need to be cascaded down to line managers and supervisors as well as employees. This research serves as a strong foundation for future research to be conducted in considering the importance of performance management system and its implications for top management.

## **9.2 RESEARCH CONTRIBUTIONS AND IMPLICATIONS**

### **9.2.1 THEORETICAL CONTRIBUTIONS**

Regarding the theoretical contributions of this research, this study offers several potential theoretical contributions to the literature. Firstly, the result findings advance current knowledge in the performance management domain by extending individual level theory of performance appraisal satisfaction from earlier work by Cardy and Dobbins (1994). They suggested that performance appraisal satisfaction was one measure of appraisal reactions that eventually affects the effectiveness of an appraisal system. This research highlighted the various determinants of performance appraisal satisfaction by exploring the unique effects of nine sub-factors: goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goals; fairness of the appraisal system; types of performance evaluation measures; format of rating scales; appraiser-appraisee relationship and credibility of appraiser; in-group collectivism; power-distance; and pay-for-performance variables. Previous studies had only examined the influence of just one or two of these predictors. As reported in those studies, each of the predictors, when considered separately, was related to appraisal satisfaction. However, when these nine predictors were considered simultaneously, each predictor showed unique variance in performance appraisal satisfaction.

Secondly, this research presented empirical evidence on performance appraisal satisfaction as there is little published research on individual employee performance appraisal satisfaction in the literature. Although performance appraisal satisfaction is the most frequently measured appraisal reaction (Giles and Mossholder, 1990; Keeping and Levy, 2000), there is a lack of empirical evidence on why and how satisfaction with performance appraisal matters (Kuvaas, 2006). In addition, less attention has been focussed on the factors contributing to appraisal reactions (Cardy and Dobbins, 1994; Murphy and Cleveland, 1995). The relationship of dependent and independent variables is mostly assumed rather than tested, and this research served as empirical evidence on performance appraisal satisfaction. Indeed, performance appraisal satisfaction was positively related to goal-setting and the purposes of performance appraisal, alignment of personal objectives with organisational goals, fairness of the appraisal system, types of performance evaluation measures, format of rating scales, appraiser-appraisee relationship and credibility of appraiser and pay-for-performance variables. For the purpose of ascertaining the strengths and weaknesses of the reviewed model, it was critically compared by examining the paths specified, paths' strengths (such as significance and insignificance), the exploratory power of the model (in terms of

endogenous variables) and model fit. In addition, culture as a dimension of the individual differences was also explored in the context of Brunei's civil service. The synthesis of the literature suggests that satisfaction of performance appraisal system depends upon the fundamental construct intrinsic to the appraisal system. Statistical results showed that all hypotheses except one were accepted. Overall, the performance appraisal system construct at the individual factors was found to be significantly and positively related to satisfaction with the performance appraisal system.

The novelty of this research is based on the development of a comprehensive theoretical framework that examines the factors and determinants that influence performance appraisal system at the individual level in the Brunei public sector. Previous studies in the area of performance management were mainly conducted in the western world, and this is the first study of its kind in Brunei, particularly in the public sector, incorporating empirical work and multiple data analysis. Previous studies on the performance management domain in the public sector mainly focussed on the macro-strategic approach (organisational performance) perspective, and less on the micro-analytical approach (individual performance). This study, by investigating the factors and determinants of satisfaction with the performance appraisal system at the employees' level, highlights how important these individual factors are, which, in turn, increases the motivation to do work and, thus, the acceptance of the performance management system.

Thirdly, another contribution to knowledge is that it is the first study of its kind in Brunei, with respect to performance management system, that takes into account the cultural settings that seemed to be absent in previous studies. This research related employee and organisational performance literature and applied Hofstede's cultural dimensions to the developing Asian country of Brunei. It is the first such study to empirically explore and use Hofstede's cultural dimensions, particularly power-distance and in-group collectivism dimension, with individual level factors of performance in Brunei's public sector. The researcher has combined a set of key factors - goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goals; fairness of the appraisal system; types of performance evaluation measures; format of rating scales; appraiser-appraisee relationship and credibility of appraiser; in-group collectivism; power-distance; and pay-for-performance variables - and how these independent factors relate to the dependent variable, which is satisfaction with the performance appraisal system. These independent elements were explored from the

perspectives of employees with regards to how performance is viewed and measured in the context of Brunei's public sector. This research thus presented an opportunity to provide empirical evidence from a relatively new cultural context, taking into account most prior studies took place in the US, UK, Australia, China, Malaysia and Singapore. This is the first study reported on performance management in the Brunei public sector. This is significant in permitting a test of the wider validity of findings derived from research conducted in a South East Asian context.

In addition, a further contribution of this study relates to the development of the conceptual framework. The developed framework encapsulated individual construct and factors that determine performance appraisal satisfaction and linked appraisal satisfaction to cultural context. Subsequently, this study contributes to academic knowledge by empirically testing the conceptual framework, in other words, assessing the significance of possible factors that determine satisfaction with performance appraisal at the individual level, as well as the consequences of the performance appraisal system, as perceived by public sector employees. As a result of confirming or declining proposed path relations between latent constructs, expressed by hypotheses, this study presents some first evidence of factors that are relevant and should be taken into consideration by future researchers when developing conceptual frameworks. These include the following constructs: goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goals; fairness of the appraisal system; types of performance evaluation measures; format of rating scales; appraiser-appraisee relationship and credibility of appraiser; in-group collectivism; power-distance; and pay-for-performance variables.

The research also contributes in terms of methodology, in that this study contributes to the examination of the predictors of established models of performance management in a country which is culturally different from the environments in which these constructs were developed, namely North American and European contexts. This research has filled gaps by testing predictor variables in cross-cultural work settings, which may be useful in generalising these predictors. Examining the predictor variables in Brunei could provide additional insights into extant literature, because Bruneian people and their cultural backgrounds are substantially different to those of western countries (Blunt, 1988). In doing so, this research study verifies, adopts and purifies the measurement items with rigorous statistical tests to check their validity and reliability. The overall conceptual framework model displayed a high degree of convergent and discriminant

validity, reliability and, finally, satisfied the model fit indices in addition to the fact that almost all relationships were found to be significant. Thus, this study contributes to the literature which has examined certain individual constructs in the context of a developed country in the West, within the context of a developing country in the East.

Furthermore, the examination of the conceptual framework using structural equation modelling (SEM) is also a methodological contribution on its own. Unlike first generation data analysis, such as regression, principle component analysis, ANOVA and MANOVA, which can only analyse one layer of a relationship at a time between independent and dependent variables, SEM enables the simultaneous modelling of multiple layers and answers a set of interrelated research questions in a single precise model in a systematic and comprehensive manner (Hair, *et al.*, 2010). The presence of multivariate normality encourages the assessment of a measurement model by a confirmatory factor approach using maximum likelihood (ML) estimation, which is an additional contribution to the method analysis. Using a two-step approach (measurement model and structural model) to confirm the consistency of a theoretical model and estimated model, the study is presented in a very thorough manner which explains each step of the analysis and which can be used as a reference for future research. In particular, this study examines construct reliability, item reliability, convergent validity, discriminant validity, explanatory power of model ( $r^2$ ), path significance ( $\beta$ -value) and goodness-of-fit indices.

### **9.2.2 MANAGERIAL IMPLICATIONS**

The implications of this research should be of interest to both management and policy makers. From the managerial point of view, this research study confirms that the current performance appraisal system, which has been used in the civil service of Brunei since 1988 (about 25 years ago), is outdated and needs to be changed and enhanced. In the context of Brunei's civil service, the current performance appraisal system involves a line manager making top-down assessments and rating the performance of their subordinates at an annual performance appraisal meeting. However, the performance appraisal system should not be regarded as a mere paper exercise between line manager (appraiser) and appraisee and act as a stand-alone system only, instead it should be incorporated into the overall performance management system of Brunei's public sector. On the other hand, performance management (as opposed to performance appraisal) is a comprehensive, continuous and flexible approach to the management of organisations, teams and individuals, one which involves the maximum amount of

dialogue between those concerned (Armstrong and Baron, 2005). The characteristics of an organisation having a performance management system are: (a) vision of its objectives is communicated to all its employees; (b) departmental and individual performance targets related to wider objectives are set; (c) a formal review of progress towards these targets are conducted; (d) the review process is used to identify training, development and reward outcomes; (e) the whole process is evaluated to improve effectiveness; and (f) formal appraisal procedures are used as ways of communicating the performance requirements which are set on a regular basis. In the Bruneian context, these characteristics need to be set by top managers and policy makers and subsequently followed through by line managers. In order to make the performance management process as effective as possible, it is imperative that line managers are properly and thoroughly trained in both technical and people management skills such as coaching. The fact that there is no proper performance management system and that the current form of employee assessment is simply an annual paper-based performance appraisal system suggests the need for a better performance management system to be designed in Brunei's Civil service.

However, a key theme which can be traced throughout this research is the extent to which people are satisfied with their performance appraisal system. Satisfaction with the performance appraisal system is employee satisfaction with their appraisal system, and is considered the most consequential among all the variables that measure reactions to appraisal feedbacks (Giles and Mossholder, 1990; Keeping and Levy, 2000; Levy and Williams, 2004). Drawing on the conceptual framework, this study indicated that satisfaction with the performance appraisal system is measured through a series of independent variables - goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goals; fairness of the appraisal system; types of performance evaluation measures; format of rating scales; appraiser-appraisee relationship and credibility of appraiser; and pay-for-performance, - as well as cultural dimensions such as in-group collectivism and power-distance. These independent variables comprise some of the most fundamental purposes of performance management. Thus, the findings of this study offer managers in Brunei's public sector practical guidelines for actively managing the employee performance system from the inside out.

Essentially, this study recommends that, in designing performance appraisals in regards to an overall performance management system, several key aspects need to be taken

into account. The findings indicate that goal-setting and the purposes of performance appraisal directly affect the design of a performance management system, in that providing employees with a clear set of goals and purposes would motivate them to work and, eventually, relate positively to job satisfaction. Performance management processes are largely concerned with interactions between the parties involved, but they also relate to what individual employees do about monitoring and improving their own performance, measuring performance and documenting the outcomes of performance management plans and reviews. As for line managers, they need to set the direction and have a proper plan based on the joint exploration of what individual employees are expected to do and know, and how they are expected to behave to meet the requirements of their role and develop their skills and competencies. The plan also needs to incorporate how line managers will provide the support and guidance individuals need. The process is certainly forward-looking, although an analysis of performance in the recent past may also provide guidance on areas of improvement or development. This eventually leads to the performance agreement, which is the starting point of the performance management cycle.

In keeping up with the concept of performance management system, individual or personal objectives of employees should be aligned with the organisation's goals. Individual objectives need to be dealt with as a part of the objective of the organisation as a whole. Alignment can be attained by a cascading process, so that objectives flow down from the top and at each level, and that team or individual objectives are defined in the light of higher-level goals. However, it should also be a bottom-up process, individual employees and teams being given the opportunity to formulate their own goals within the framework provided by the defined overall purpose, strategy and values of the organisation. In order to do that, top management needs to come up with a clear set of goals for their organisations so that these can be integrated into an employee's own personal objectives. Objectives can be quantitative (numerical targets), achievement-based (things to be done), or qualitative (expectations of behaviour). Objectives can be work-related, referring to the achievement of role requirements and results to be attained, or they can be personal, taking the form of developmental or learning objectives concerned with what individuals should do to enhance their knowledge, skills and potential.

Among the outcomes from this study is a suggestion that performance appraisal should be fair and transparent. The fact that 94.6% of the respondents indicated fairness and

clarity of the appraisal system as the most important aspect in performance management, suggests that top management should get their act together. Fairness of performance appraisal as an important criterion in judging the effectiveness of performance appraisal has been reported in many studies (Landy, *et al.*, 1978; Greenberg, 1986; Evans and McShane, 1988; Dobbins, *et al.*, 1990; Taylor, *et al.*, 1995). However, it becomes more difficult when qualitative measures have to be used, which may refer to behaviours or unquantifiable outcomes rather than defined results. It is expected that performance assessment is much more judgmental and, therefore, potentially biased, unfair and inconsistent unless based on objective evidence of behaviour and the outcomes of behaviour. This is consistent with the initial findings of this study which indicated that 'objective performance appraisal is a better representation of employee performance than subjective performance appraisal' (values of  $\beta=0.332$ ;  $t=8.116$ ,  $p<0.001$ ). In addition, 'subjective or traits-based performance evaluation is not a reliable indicator of employee's actual performance' with values of  $\beta=0.227$ ;  $t=5.471$ ,  $p<0.001$ . It is further highlighted that team-based measures are *not* a better representation of employee performance appraisal than individual-based measures' and that this contradictory relationship has been rejected, as shown in Chapter 7.

It is inevitable that most performance management schemes include some form of rating scales. This indicates the quality of performance or competence achieved or displayed by an employee by selecting the level on a scale that most closely corresponds with the view of the assessor on how well the individual has been doing. A rating scale is intended to assist in making judgments and to enable those judgments to be categorised to inform performance or contribution pay decisions, or simply to produce an instant for the record summary of how well someone is doing. So, how do these findings have an implication for top management with regards to designing performance appraisals? This would certainly indicate that the rating scales for appraisal schemes in the Brunei civil service need to be more objective and less subjective. However, the challenge at the top management level in the public sector is how to make the appraisals more objective since the notion of 'performance' is often unclear and a sense of subjectivity may be felt. Even if objectivity is achieved, summing up the total performance of an employee with a single rating is an over-simplification of what may be a complex set of factors influencing that performance. The whole performance review meeting may be dominated by the fact that it will end up with a rating, thus severely limiting the forward-looking and developmental focus of the meeting. This is particularly the case if the rating governs performance or contribution pay increases, as with Brunei's civil service.



This eventually brings back to the issue of pay-for-performance initiatives. Brunei's civil service currently has a reward initiative in the form of an annual bonus linked with performance appraisal wherein people having performance ratings of 'Excellent (A)' to 'Satisfactory (D)' grade would be given a full one-month salary. This means that those employees with an 'A' rating will receive the same amount of reward or financial initiatives as an employee with mere 'D' rating. The fact that the quantitative findings indicated 78.3% of the respondents agreed that *'on top of the current appraisal system, which is linked to annual bonus, there should be an incentive scheme in terms of performance-related pay for those who achieve Grade 'A' (Excellent) in their annual appraisal'* suggests additional attention from top management is needed to restructure the reward strategy.

In regard to pay-for-performance initiatives in the Bruneian context, it is worth contemplating Korea's *'yunbongje'* programme (see previous literature review in Chapter 2) and how the notion of individual contributions to organisational success is reflected in 'merged' pay (such as base pay, various allowances and fixed bonuses). Additionally, performance as outcomes rather than seniority or job tenure as inputs is more emphasised in determining pay. Another critical aspect of *'yunbongje'* is that it strengthens both the flexibility of pay, by increasing the proportion of performance-linked variable pay and competition among employees by differentiating their pay and reduces labour cost pressure from increasing seniority. This is consistent with Heneman (1992, p.47) who reported that *"a number of studies have shown a relationship between performance ratings and changes in pay such that higher performance ratings are associated with higher increases in merit pay"*. Contributing to all this complexity are the implications of a number of psychological theories. The implications of expectancy theory (Lawler, 1987; Salaman and Mabey; 1995) for pay-for-performance are quite clear, in that it serves as motivational drive for employees to achieve better performance. This is further supported by 'reinforcement theory' where provision of the reward must be timely, which is a basic principle of giving feedback. Reinforcement theory also supports the expectancy theory-reward process link, as pay increases must be contingent upon delivery of the desired performance, with greater increases being given for higher levels of performance (Williams, 1998). In the light of these findings, the manager's role in rewarding and recognizing employee performance needs a rethink so that excellent performers are rewarded in a just and fair manner.

Regardless of demographic differences, management also needs to consider the importance of cultural dimensions, which are not homogenous across the nations or even across individuals within the same country. The results of this study support the idea that one's national culture affects the attributes and behaviour of individuals (Hofstede, 1988). The findings of the current study highlighted that social influence does matter within cultural groups, whether in the form of subjective norms or in management support. The effects of national culture appear to moderate the level of satisfaction with the performance appraisal system among public sector employees. For instance, in the Bruneian context, individuals higher on power-distance and registering more on collectivist society accorded higher importance to subjective norms, such as peer and superior influence, as they do not want to create tension or disharmony among employees. However, based on the findings of this study, some employees do encourage a more open and participative style of performance management, such as the use of feedback and 360-degree appraisal systems. The characteristics of having a more open and participative style of management is indicative of a lower power-distance society, in which an organisation from countries with lower power-distance ratio would have a more decentralised decision-making system that stresses the importance of mutual communication (Hofstede, 2001).

Similarly, there is evidence of a slight shift from collectivism to individualism in the human resource management context, as shown from the questionnaire findings. The implications of these initial findings on cultural dimensions in the Bruneian context open up a key challenge for top management as to the effect of the transition from 'high power-distance' to a 'lower power-distance' and from a 'collectivist' society to an 'individualist' one in terms of human resource management related practices. This transition may equate the need for managers to develop a new culture where performance-related incentives, such as promotion, pay and other organisational benefits, would be based on individual contributions rather than group characteristics. The fact that the environment is conducive for an open, honest and participative style of appraisal feedback means that the design of a better performance management system can easily be implemented within Brunei's public sector in the near future.

### **9.3 LIMITATIONS OF THE STUDY**

In this section, the results attained by this study will be interpreted in the light of certain limitations. Firstly, it is recognised that the role of the researcher in this study could be a

potential limitation of the study. The fact that the researcher is currently working in Brunei's Public Service Department may have an influence on the outcome of this research in that it is not from the perspective of a fully independent researcher. The difficulty in accessing the data could be a potential hindrance in carrying out this research. However, the fact that respondents for both the interviews and questionnaires were drawn from staff lists minimised the likelihood of influencing the research results.

Secondly, the research was carried out in ten out of twelve ministries in Brunei and two ministries, the Ministry of Development and the Ministry of Industry and Primary Resources, did not participate. The different nature of work, and possibly organisational culture, in both government organisations may limit generalisability. It is possible that employees in those two ministries react differently when it comes to performance appraisal satisfactions. Thus, the predictor variables of the theoretical framework should also be tested in those organisations in the same culture, which may present confounding effects in those organisations. Furthermore, this research was conducted in the Brunei public sector, thus there is also limitation of the research findings for generalisation, particularly for organisations in the Brunei private sector as well as in a developed or western countries. Thus, more tests are necessary to strengthen its generalisability.

Thirdly, given that this research represents a first attempt to investigate the construct of individual performance appraisal satisfaction in the public sector, for which limited previous literature was available, future studies should attempt to further validate all measurement scales purified in this research. The initial reliability and validity figures indicate that the scale only just satisfied the minimum threshold requirements and that these reliability and validity issues could be overcome by increasing more items in a multi-items scale questionnaire to generate a better results.

The next limitation is that the main quantitative study was reliant on using a single, self-reported questionnaire at a single point in time. When self-reports are used, concerns regarding common method bias being responsible for the observed relationships often arise (Cole, *et al.*, 2006). A self-reported single data at a single point in time may be highly affected. Such data may result in a spuriously high relationship, but this study employed in-depth interviews to offset the problems.

The fifth limitation of this study is related to the cross-sectional design that limited understanding of the extent to which causality can be inferred. In other words, one is unable to establish a cause-and-effect relationship among the variables of interest. Despite the fact that the cross-sectional design allowed the researcher to collect a large data sample in a short span of time (Bordens and Abbott, 2007), it remained futile to try to understand the impact of the key predictor variables with respect to time (longitudinal analysis). Therefore, future research with respect to longitudinal studies is needed to replicate the current study and address the issues related to time and long-term usage of performance appraisals.

#### **9.4 DIRECTIONS FOR FUTURE RESEARCH**

As previously highlighted in the literature reviews, future research may incorporate comparative research outside of Brunei, such as in other Asian countries, for example India, China, South Korea, Malaysia, Singapore and Vietnam, as an international comparison. This is because these countries have diverse cultures which may have cultural implications on performance management similar to the Bruneian context. The question as to whether these findings can be generalised in the context of other Asian countries opens up opportunities for further research. Thus, a comparative research may be useful in differentiating the diverse cultures which may or may not be receptive to performance management initiatives.

As presented in the previous chapters, this research was conducted among public sector employees who were acting as supervisee, and is therefore from the perspectives of those being assessed. Future studies should explore the relationships from supervisors' point of view, such as by conducting a focus group to gain a deeper understanding of the performance appraisal system. In addition, future research should examine the relationship of performance appraisal satisfaction from different perspectives; for example, the perspectives of the organisations and management team. Acquiring the information from different perspectives will enable researchers to further understand relationships between the constructs of interest from both employees' and managers' perspectives, thus reducing the response bias. The researchers could further examine the gaps between employees' and managers' perceptions of performance management, while the factors which create those gaps should also be investigated further.

In addition, the data for this study was collected using cross-sectional survey. Future research is needed to obtain longitudinal data to investigate the impact of performance appraisal satisfaction before and after the performance appraisal assessment. This includes which factors influence employee perceptions in generating a fair performance appraisal ratings, as well as the level of satisfaction with the performance appraisal system. Prior research indicates that individuals' perceptions are formed over the passage of time and through experience and continuous feedback from surroundings (Nathan, *et al.*, 1991; Blau, 1991). Thus, it is expected that future research will examine the findings of this research with more in-depth investigations using longitudinal data.

Furthermore, this study examined direct relationships between independent variables - goal-setting and the purposes of performance appraisal; alignment of personal objectives with organisational goals; fairness of the appraisal system; types of performance evaluation measures; format of rating scales; appraiser-appraisee relationship and credibility of appraiser; and pay-for-performance - and how these independent factors related to the dependent variable, which was satisfaction with the performance appraisal system. One of the key issues for future research is to examine more sophisticated relationships between these independent variables as well as the effects of proximal and distal influences of performance appraisals. Proximal influence is the supervisors' attitudes and beliefs relevant to the immediate task of appraising subordinates' performance, while distal influence is that of employees' attitudes and beliefs about their organisation (Murphy and Cleveland, 1995; Tziner, *et al.*, 1998). In this regard, future research could further develop a theoretical model concerning performance management for different types of predictors' relationships, in that a variety of more complicated relationships may exist. In addition, a deeper data analysis procedure using structural equation modelling as well as the use of model-fit indices may need to be incorporated in the study.

Moreover, some factors unique to the research setting may have had a strong influence on satisfaction with the performance appraisal system and its antecedent factors in the model, such as the influence of cultural factor. In this research, only two cultural dimensions were explored, power-distance and individualism-collectivism perspectives. Future research should also incorporate other cultural dimensions, such as uncertainty avoidance, masculinity-femininity and long-term and short-term orientation perspectives (Hofstede, 1983). This means that future research could examine whether culture is a

possible moderator of the relationships between employee performance and its antecedent factors.

## **9.5 CHAPTER SUMMARY**

It is hoped that this study has filled some research gaps, mainly by providing alternative empirical and theoretical insights from the employees' perspective into the potential determinants of employee performance, and by testing theories in a non-western setting to increase their external validity. The study employed a mixed methods approach, which involved a predominantly quantitative approach and a less dominant qualitative approach to develop measurement scales and test hypotheses. In the light of the research findings, it is crucial for the current performance appraisal system in Brunei's public sector to be reviewed and the concept of performance management system to be incorporated into Brunei's public services. Such change requires top management initiatives and interventions, and the performance management processes need to be cascaded down to line managers and supervisors as well as employees. Given that some limitations do exist, future research avenues are recommended to build upon this study. It is suggested that subsequent research further validates the measurements, as well as examines the relationship between the concepts from other stakeholders' perspectives (organisational and management perspectives) as well as over time. In summary, it is hoped that this research serves as a strong foundation for future research to be conducted in considering the importance of a performance management system and its implications for researchers, top management and policy makers in the public sector.

## **9.6 PERSONAL REFLECTIONS ON THIS RESEARCH**

The completion of this thesis represents the culmination of years of study, commitment, sacrifice, learning and discovery. It has been a long and momentous journey and has demanded a lot of effort and time. A great deal of patience and continuous support helped bring this work to life. The ability to juggle my precious time between my academic and personal life is something that I have encountered and acquired over the years of study. On the one hand, I have had to constantly plan and complete my thesis chapters almost every month in order for them to be submitted to my supervisor. On the other hand, I have constantly missed the love of my wife, my two beautiful girls and my immediate family members back home in Brunei who have always believed in my dreams and determination to earn this degree. To my wife, Siti Badriyah, I remembered your prayers every day and I felt your love in expectation that the work would one day

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The completion of this thesis is not the end of my journey, rather it is the beginning of a new career life. The vast experience of doing a PhD study has taught me the true meaning of discipline, innovation, initiative and perseverance. I have to *discipline* myself to do my work every day in order to finish writing up my chapters. I have to instil a sense of *innovation* in my research, so as to be more aspiring and relevant to the challenging academic world. It is down to my own *initiative* to be involved with countless training, courses, seminars and conferences so as to be exposed to and keep up with the latest research trends. Finally, great works are performed not by strength, but by *perseverance*. Certainly, in the realm of ideas, everything depends on enthusiasm, but in the real world, all rests on *perseverance*.

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**SUMMARY OF KEY TERMS USED IN THIS RESEARCH**

**Adjusted R<sup>2</sup>:** A measure of the loss of predictive power or shrinkage in regression. The adjusted R<sup>2</sup> signifies how much variance in the outcome would be accounted for if the model had been derived from the population from which the sample was taken.

**Bartlett's test of sphericity:** Statistical test for the overall significance of all correlations within a correlation matrix

**Boxplot method of representing the distribution of the variable:** A box represents the major portion of the distribution, and the extensions (whiskers) reach to the extreme points of the distribution.

**Communalities:** Total number of variance an original variable shares with all other variables included in the analysis

**Confirmatory Factor Analysis:** A version of factor analysis in which specific hypotheses about structure and relations between the latent variables that underlie the data are tested

**Correlation coefficient (r):** Coefficient that indicates the strength of the association between any two matrix variables. The sign (+ or -) indicates the direction of the relationship. The value can range from +1 to -1, with +1 indicating a perfect positive relationship, 0 indicating no relationship and -1 indicating a perfect negative or reverse relationship

**Correlation matrix:** Table showing the inter-correlations among all the variables

**Cronbach's alpha (α):** Measure of reliability that ranges from 0 to 1, with values of 0.60 and 0.70 deemed the lower limit of acceptability

**Degrees of freedom, df:** The amount of mathematical information available to estimate model parameters

**Dependent variable:** Presumed effect of, or response to, a change in the independent variable(s).

**Eigenvalue:** Column sum of squared loadings for a factor, also referred to as the latent root. It represents the amount of variance accounted for by a factor

**Epistemology:** A theory that deals with how the knowledge of the external reality is acquired

**Exploratory Factor Analysis:** Take what the data give and do not set any priori constraints on the estimation of components or the number of components to be extracted. The purpose of EFA is to explore the data and provide information to researcher about the number of possible factors that best represent the data.

**Factor loadings:** Correlations between the original variables and the factors, and the key to understanding the nature of particular factor.

**Factor matrix:** Table displaying the factor loadings of all variables on each other



**Factor score:** Composite measure created for each observation on each factor extracted in a factor analysis. The factor weights are used in conjunction with the original variable values to calculate each observation's score.

**Fit:** A degree to which a statistical model is an accurate representation of some observed data

**Frequency distribution:** A graph plotting values of observations on the horizontal axis, and the frequency with which each value occurs in the data set on the vertical axis.

**Goodness-of-fit (GOF):** Measure indicating how well a specified model reproduces the observed covariance matrix among the indicator variables.

**Homogeneity of variance:** The assumption that the variance of one variable is stable (relatively similar) at all levels of another variable

**Homoscedasticity:** An assumption in regression analysis that the residuals at each level of the predictor variable(s) have similar variances.

**Hypothesis:** A prediction about the state of the world

**In-group collectivism:** The degree to which individuals express pride, loyalty, and cohesiveness in their families and organizations.

**Independent variable:** Presumed cause of any change in the dependent variable.

**Individualism:** The extent to which people are oriented towards the well-being of themselves/families as against an orientation towards a wider social grouping

**Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (MSA):** Measure calculated both for the entire correlation matrix and each individual variable evaluating the appropriateness of applying factor analysis. Values above 0.50 for either the entire matrix or an individual variable indicates appropriateness

**Kolmogorov-Smirnov test:** A test of whether a distribution of scores is significantly different from a normal distribution. A significant value indicates a deviation from normality.

**Kurtosis:** Measure of the peakedness or flatness of a distribution when compared with a normal distribution.

**Latent variable:** A variable that cannot be directly measured, but it is assumed to be related to several variables that can be measured

**Levene's test:** Test the hypothesis that the variances in different groups are equal (i.e. the difference between the variances is zero). It is test of homogeneity of variance to confirm the results of variability of dependent variables with independent variables.

**Likert Scale:** A scale that requires participants to make decision on their level of agreement and the level of importance with each given statement.

**Mahalanobis distance:** The distance of a case from the centroid of the remaining cases where the centroid is the point created at the intersection of the means of all the

variables. Mahalanobis distance is evaluated as  $\chi^2$  with degrees of freedom equal to the number of variables.

**Masculinity:** The extent to which material forms of success are prized over values such as caring and nurturing

**Measurement scales:** Collection of items combined into composite score, and intended to reveal levels of theoretical variables not readily observable by direct means.

**Mediating or intervening variables:** Stand between the independent and dependent variables, and they mediate the effects of the independent variable on the dependent variable

**Model:** A representation of a theory

**Moderating variables:** New variables constructed by a researcher by taking one variable and multiplying it by another to determine the joint impact of both.

**Multicollinearity:** Extent to which a variable can be explained by the other variables in the analysis. As multicollinearity increases, it complicates the interpretation of the variate because it is more difficult to ascertain the effect of any single variable, owing to their interrelationships.

**Multivariate:** Means 'many variable' and is usually used when referring to analyses in which there is more than one outcome variable

**Multiple Regression:** An extension of simple regression in which an outcome is predicted by a linear combination of two or more predictor variables. The form of the model is  $Y_i = (b_0 + b_1X_{1i} + b_2X_{2i} + \dots + b_nX_{ni}) + \epsilon_i$  in which the outcome is denoted as Y and each predictor is denoted as X. Each predictor has a regression coefficient  $b_i$  associated with it, and  $b_0$  is the value of the outcome when all predictors are zero.

**Non-probability sampling:** The probability of each of the units in the population being selected is not known and there is a higher chance for some units of the population to be in the sample than for the others

**Normality:** Degree to which the distribution of the sample data corresponds to a *normal* distribution

**Normal distribution:** A probability distribution of random variable that is known to have certain properties. It is perfectly symmetrical (has a *skew* of 0 and has a *kurtosis* of 0).

**Oblique rotation:** A method of rotation in factor analysis that allows the underlying factors to be correlated

**Orthogonal rotation:** A method of rotation in factor analysis that keeps the underlying factors independent (not correlated)

**Ontology:** Related with what exists and the nature of the world

**Outliers:** A observation very different from most others. Outliers can bias statistic such as mean.

**Path analysis:** General term for an approach that employs simple bivariate correlations to estimate relationship in SEM model. Path analysis seeks to determine the strength of the paths shown in path diagrams

**Path diagrams:** A visual representation of a model and the complete set of relationships among the model's construct.

**Pearson's correlation coefficient:** A standardised measure of the strength of relationship between two variables, and take any value between -1 to 1.

**Performance Management:** A systematic process for improving organisational performance by developing the performance of individuals and teams

**Performance Measurement:** The process of quantifying the efficiency and effectiveness of past actions through acquisition, collation, sorting, analysis, interpretation and dissemination of appropriate data

**Phenomenology:** The science of phenomena, as such the phenomenological paradigm is concerned with understanding human behaviour from the participant's own frame of reference

**Positivism:** The social world exists externally, and that its properties should be measured through objective methods, rather than being inferred subjectively through sensation, reflection or intuition. Positivism is often taken to be identical to quantitative methodology because it contains the ontological and epistemological prescriptions that show how this methodology should conduct research.

**Power-distance:** The degree to which members of an organization or society accept unequal distributions of power

**Probability sampling:** Each population element has a known, non-zero chance of being included in the sample

**Principal component analysis (PCA):** A multivariate technique for identifying the linear components of a set of variables

**Qualitative methods:** Extrapolating evidence for a theory from what people say or write (contrast with quantitative methods)

**Quantitative methods:** Inferring evidence from a theory through measurement of variables that produce numeric outcomes (contrast with qualitative methods)

**Reliability:** Extent to which a variable or set of variables is consistent in what it is intended to measure. If multiple measurements are taken, the reliable measures will all be consistent in their values. It differs from validity in that it relates not to what should be measured, but instead to how it is measured.

**Residual:** Error in predicting the sample.

**Scree plot:** A graph plotting each factor in a factor analysis (X-axis) against its associated eigenvalue (Y-axis) which shows the relative importance of each factor

**Shapiro-Wilk test:** A test of whether a distribution of scores is significantly different from normal distribution

**Skewness:** A measure of the symmetry of a frequency distribution

**Social constructionism:** Same as phenomenological

**Standard deviation:** An estimate of the average variability (spread) of a set of data measured in the same units of measurement as the original data. It is the square root of the variance.

**Structural equation modelling (SEM):** Multivariate technique combining aspects of factor analysis and multiple regression that enables the researcher to simultaneously examine a series of interrelated dependence relationships among the measured variables and latent constructs (variables) as well as between several latent constructs

**Tolerance:** Tolerance statistics measure multicollinearity and are simply the reciprocal of the variance inflation factor (1/VIF).

**Triangulation:** Entails using more than one method or source of data in the study of social phenomena. The term has been employed somewhat more broadly to refer to an approach that uses multiple observers, theoretical perspectives, sources of data and methodologies

**Uncertainty avoidance:** The extent to which people dislike ambiguity and uncertainty

**Validity:** Extent to which a measure or a set of measures correctly represents the concept of study – the degree to which it is free from any systematic or non-random error. Validity is concerned with how well the concept is defined by the measure(s), whereas reliability relates to the consistency of the measure(s).

**Variables:** A characteristic or attribute of an individual or an organisation that can be measured or observed and that varies among the people or organisation being studied

**Variance:** An estimate of average variability (spread) of a set of data. It is the sum of squares divided by the number of values on which the sum of squares is based minus one.

**Variance Inflation Factor (VIF):** A measure of multicollinearity and indicates whether a predictor has a strong linear relationship with the other predictor(s).

**Varimax Rotation:** A method of orthogonal rotation. It attempts to maximise the dispersion of factor loadings within factors. Therefore, it tries to load a smaller number of variables highly onto each factor resulting in more interpretable clusters of factors.

**APPENDIX 2****BUDGET ALLOCATION ACCORDING TO VARIOUS MINISTRIES  
IN BRUNEI (2014-2015)**

<b>MINISTRY</b>	<b>BUDGET ALLOCATION (MILLIONS)</b>
Ministry of Finance	\$1,167.82
Ministry of Education	\$770.78
Ministry of Defence	\$719.15
Prime Minister's Office	\$647.28
Ministry of Health	\$373.21
Ministry of Development	\$310.21
Ministry of Religious Affairs	\$260.02
Ministry of Home Affairs	\$162.84
Ministry of Foreign Affairs and Trade	\$142.88
Ministry of Culture, Youth and Sports	\$101.78
Ministry of Industry and Primary Resources	\$90.31
Ministry of Communications	\$83.92
<b>Total budget</b>	<b>\$4,830.21</b>

**BRUNEI'S STRATEGY TO ACHIEVE THE NATIONAL VISION 2035**

**ACHIEVING BRUNEI 2035**

We will need to develop and implement an integrated and well-coordinated national strategy comprising the following key elements:

- **An education strategy** that will prepare our youth for employment and achievement in a world that is increasingly competitive and knowledge-based.
- **An economic strategy** that will create new employment for our people and expand business opportunities within Brunei Darussalam through the promotion of investment, foreign and domestic, both in downstream industries as well as in economic clusters beyond the oil and gas industry.
- **A security strategy** that will safeguard our political stability and our sovereignty as a nation and that links our defence and diplomatic capabilities and our capacity to respond to threats from disease and natural catastrophe.
- **An institutional development strategy** that will enhance good governance in both the public and private sectors, high quality public services, modern and pragmatic legal and regulatory frameworks and efficient government procedures that entail a minimum of bureaucratic "red tape".
- **A local business development strategy** that will enhance opportunities for local small and medium sized enterprises (SMEs) as well as enable Brunei Malays to achieve leadership in business and industry by developing greater competitive strength.
- **An infrastructure development strategy** that will ensure continued investment by government and through public-private sector partnerships in developing and maintaining world-class infrastructure with special emphasis placed on education, health and industry.
- **A social security strategy** that ensures that as the nation prosper, all citizens are properly cared for.
- **An environmental strategy** that ensures the proper conservation of our natural environment and cultural habitat. It will provide health and safety in line with the highest international practices.

**INTERVIEW AGENDA**

**Section A: Current Performance Appraisal System**

1. Is there any form of performance appraisal system in your organisation?
  - If yes → Are you using the appraisal system currently being used by Public Service Department, Brunei?
  - If no → Why is there no appraisal system being used? Do you think the performance appraisal system is not important?
  
2. In your opinion, how effective is the current appraisal system in your organisation?
  - If effective → In what ways the current appraisal system is effective with regards to measuring employee performance and achieving organisational goals?
  - If not effective → In your experience, what are the issues and challenges that undermine the current appraisal system?
  
3. Are you an appraiser or an appraisee, or both?
  - If appraiser → As an appraiser, do you think the current general criteria used to measure employee performance in the appraisal form is a true measure of employee performance?
  - If appraisee → As an appraisee, do you think the current general criteria used to measure employee performance in the appraisal form is a true measure of your performance?
  - If both → ask both questions
  
4. Do you think the current appraisal system is a true reflection of employee performance?
  - If yes → Can you explain a bit more?
  - If no → Why do you think this is not so? How do you make the appraisal reflect true measures of employee performance?
  
5. In your experience, are you aware of any specific rating scales format used in the current appraisal system?
  - If yes → Can you explain what is it?
  - If no → Would like to have a proper rating scale format in the appraisal system?
  
6. Do you think the current appraisal system needs to change?
  - If yes → in what ways?
  - If not → Why not?

## Section B: Perception of Performance Management System

1. In your opinion, what is your perception of an effective performance management system? How do measure an effective system?
2. What do you think are the key factors in the determining the accuracy of performance ratings?
3. Do you think a performance appraisal system should be objective or subjective, or a combination of both?
  - If objective → Do you think an objective measures of performance can easily be measured?
  - If subjective → Do you think a subjective measures of performance can easily be measured? If not, why not?
  - If both → Why do you think is this so?
4. Do you think a team-based performance appraisal measures is a better representation of employee performance appraisal than individual-based appraisal measures?
  - If yes → Why is this a better measure?
  - If no → Why is this not a better measure?
5. On top of the current appraisal system which is linked to annual bonus, do you think that there should be an incentive scheme in terms of performance-related pay for those who achieve Grade A (Excellent) in their annual appraisal?
6. Any other additional comments about the effectiveness of an appraisal system

### Interviewee details

Organisation name	
Interviewee name	
Interviewee position	
Department	
Contact details (e-mail/telephone)	



**QUESTIONNAIRE  
PERFORMANCE APPRAISAL SYSTEM IN THE PUBLIC SECTOR**

This questionnaire is part of the on-going research in finding out information about Performance Appraisal of Employees in the Civil Service of Brunei Darussalam. All employees in the Brunei Civil Service are invited to complete the questionnaire.

**Section A: Demography**

[Please tick (√) the relevant box]

1. Age :            16-25    26-35    36-45    46-55    Over 55

2. Gender :        Male      Female

3. Division :      Div.I    Div.II    Div.III    Div.IV    Div.V

4. Length of Service : 0-5 years                         16-20 years     
                                  6-10 years                         21-25 years     
                                  11-15 years                         26 years and more   

5. Present Ministry:

Prime Minister's Office .....	<input type="checkbox"/>	Ministry of Communication .....	<input type="checkbox"/>
Ministry of Defence .....	<input type="checkbox"/>	Ministry of Development .....	<input type="checkbox"/>
Ministry of Finance .....	<input type="checkbox"/>	Ministry of Home Affairs .....	<input type="checkbox"/>
Ministry of Foreign Affairs & Trade	<input type="checkbox"/>	Ministry of Religious Affairs .....	<input type="checkbox"/>
Ministry of Education .....	<input type="checkbox"/>	Ministry of Industry & Primary Resources	<input type="checkbox"/>
Ministry of Health .....	<input type="checkbox"/>	Ministry of Culture, Youth & Sports ..	<input type="checkbox"/>

6. Scope of work:

Management/Administration...	<input type="checkbox"/>	Education/Teaching .....	<input type="checkbox"/>
Technical/Engineering .....	<input type="checkbox"/>	Research and Diplomacy .....	<input type="checkbox"/>
Legal/Advisory .....	<input type="checkbox"/>	Economics/Planning .....	<input type="checkbox"/>
Finance/Accountancy .....	<input type="checkbox"/>	Information Technology/ICT .....	<input type="checkbox"/>
Medical and Health .....	<input type="checkbox"/>	Community Work .....	<input type="checkbox"/>
		Other (please specify) .....	<input type="checkbox"/>

**Section B: Current Performance Appraisal System**

[Please tick (√) the relevant box]

For question 7, please complete EITHER Section 7(i) [if you are in Grade I and II] OR Section 7(ii) [if you are in Grade III and Grade IV]; OR Section 7(iii) [if you are in Grade V].

7. In your current performance appraisal form, there are general criteria used in determining your performance. In your opinion, how important is the following general criteria in evaluating your true performance?

7(i) For Grade I and Grade II only  
 How important is the following general criteria in evaluating your appraisal?  
 Please tick (✓)

<b>General criteria used in performance appraisal</b>	<b>Not important at all (1)</b>	<b>Not so important (2)</b>	<b>Undecided (3)</b>	<b>Important (4)</b>	<b>Very important (5)</b>
Job knowledge					
Attendance					
Work Management					
Decision Making					
Innovativeness					
Communication					
Reliability					
Leadership					
Commitment					

7(ii) For Grade III and Grade IV only  
 How important is the following general criteria in evaluating your appraisal?  
 Please tick (✓)

<b>General criteria used in performance appraisal</b>	<b>Not important at all (1)</b>	<b>Not so important (2)</b>	<b>Undecided (3)</b>	<b>Important (4)</b>	<b>Very important (5)</b>
Job knowledge					
Attendance					
Ability to finish work on time					
Work quality					
Communication					
Handling office equipment					
Ability to understand					
Commitment					
Behaviour					

7(iii) For Grade V only  
 How important is the following general criteria in evaluating your appraisal?  
 Please tick (✓).

<b>General criteria used in performance appraisal</b>	<b>Not important at all (1)</b>	<b>Not so important (2)</b>	<b>Undecided (3)</b>	<b>Important (4)</b>	<b>Very important (5)</b>
Job knowledge					
Attendance					
Ability to finish work on time					
Handling office equipment					
Behaviour					
Ability to receive instruction from superior					
Interpersonal relations					
Honesty and Trustworthiness					

On a scale of 1 to 5, please indicate to what extent do you agree with the following statements relating to the current performance appraisal in your organisation?

No	Questions	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
8.	I have a good understanding of the appraisal criteria	1	2	3	4	5
9.	The appraisal criteria (general) in which I am evaluated is fair	1	2	3	4	5
10.	The current performance appraisal system in my organisation is related to my development	1	2	3	4	5
11.	The present appraisal system contributes to my overall organisational effectiveness.	1	2	3	4	5
12.	The current format of rating scales used (using percentages in each criteria) in the appraisal form is <u>not</u> an effective measure of employee performance	1	2	3	4	5
13.	The performance criteria used in the appraisal form does <u>not</u> actually measure my real performance	1	2	3	4	5
14.	Less time is spent on the appraisal process. It is treated as a mere ritual by supervisors and subordinates	1	2	3	4	5
15.	My current appraisal is done just for the sake of getting bonuses	1	2	3	4	5
16.	My current performance appraisal system is very effective	1	2	3	4	5
17.	In general, I received the appraisal outcome that I deserved	1	2	3	4	5
18.	The productivity of the workforce in this organisation has been improving as a result of the performance management system	1	2	3	4	5
19.	With my performance now, overall I am fully satisfied with my current pay	1	2	3	4	5
20.	Overall, I am fully satisfied with criteria used in the current appraisal system	1	2	3	4	5

### Section C : Perceived Employee Performance

21. How important is the following aspects in determining the accuracy of individual performance appraisal in your organisation? Please tick (√).

No.	Aspect of performance appraisal	Not important at all (1)	Not so important (2)	Undecided (3)	Important (4)	Very important (5)
i.	Goal Setting and Purposes of Performance Appraisal					

No.	Aspect of performance appraisal	Not important at all (1)	Not so important (2)	Undecided (3)	Important (4)	Very important (5)
ii.	Alignment of personal objectives with organizational goals					
iii.	Fairness and Clarity of Appraisal System					
iv.	Types of Evaluation Measures (such as objective or subjective performance appraisal or team-based appraisal)					
v.	Rating Scales Format					
vi.	Appraiser-Appraisee Relationship					
vii.	Presence of Pay-for-performance					

On a scale of 1 to 5, please indicate to what extent do you agree with the following statements relating to your performance appraisal in your organisation?

No	Questions	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
22.	An important aspect of performance management is the setting of goals	1	2	3	4	5
23.	It is important be aware of the purpose and objectives of the performance management system	1	2	3	4	5
24.	Performance management should be focused on development of employees	1	2	3	4	5
25.	Objectives need to be set at the beginning of the year in alignment to my organisation's strategy	1	2	3	4	5
26.	An effective performance appraisal system is an important indicator of the effectiveness of employee performance	1	2	3	4	5
27.	Individual performance should be align to organizational mission and objectives	1	2	3	4	5
28.	Appraisal information form measures of departmental objectives	1	2	3	4	5
29.	The appraisal criteria in evaluating my performance should be made clear	1	2	3	4	5
30.	The appraisal system should be fair	1	2	3	4	5
31.	The appraisal system should be transparent	1	2	3	4	5

No	Questions	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
32.	The type of performance evaluation measures used in employee performance appraisal is important for an effective appraisal system	1	2	3	4	5
33.	Performance measurement criteria should be subjective	1	2	3	4	5
34.	Performance measurement criteria should be objective	1	2	3	4	5
35.	Format of rating scale is important to measure the accuracy of individual performance	1	2	3	4	5
36.	The format of rating scale used in the appraisal form should be measurable	1	2	3	4	5
37.	Performance ratings should be based on how well I do my work	1	2	3	4	5
38.	Appraiser should have enough time to observe and evaluate appraisee	1	2	3	4	5
39.	Appraiser and appraisee should jointly develop the performance goals	1	2	3	4	5
40.	Appraisee should openly discuss his/her job problems with the appraiser	1	2	3	4	5
41.	Group welfare is more important than individual rewards	1	2	3	4	5
42.	Group success is more important than individual success	1	2	3	4	5
43.	Supervisors give the same ratings to all their subordinates in order to avoid resentment and rivalries among them	1	2	3	4	5
44.	My performance appraisal is based on the quality and quantity of my work and not on my personality or position	1	2	3	4	5
45.	It is important to maintain harmony within my peers, subordinates and workers in my organisation	1	2	3	4	5
46.	Employees should not disagree with management decisions	1	2	3	4	5
47.	Management should make most decisions without consulting subordinates	1	2	3	4	5
48.	Managers should not delegate important task to employees	1	2	3	4	5
49.	It is frequently necessary for a manager to use authority and power when dealing with subordinates	1	2	3	4	5

No	Questions	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
50.	On top of the current appraisal system which is linked to annual bonus, there should be an incentive scheme in terms of performance-related pay for those who achieve Grade A (Excellent) in their annual appraisal	1	2	3	4	5
51.	Recognition and rewards are based on merit in my work unit	1	2	3	4	5

Lastly, think about the last performance appraisal that you have, and answer the following questions.

52. My last performance rating grade is  A (Excellent)  
 B (Very Good)  
 C (Good)  
 D (Satisfactory)  
 E (Needs Improvement)  
 F (Unsatisfactory)  
 Not Assessed (please state reason)

.....

53. In your opinion, how appropriate was this grade?

Very appropriate  Appropriate  Undecided  Inappropriate  Not appropriate at all

Any other comments about your current or future performance appraisal system (Please write down below)

*Thank you for your time in completing this questionnaire.*

**[MALAY VERSION OF QUESTIONNAIRE]**

**KAJI SELIDIK MENGENAI PENILAIAN PRESTASI DALAM PERKHIDMATAN AWAM**

Kaji selidik ini adalah sebahagian daripada penyelidikan berterusan mengenai Penilaian Prestasi Pegawai dan Kakitangan dalam Perkhidmatan Awam, Negara Brunei Darussalam. Semua pegawai dan kakitangan yang berkhidmat dalam Perkhidmatan Awam adalah dijemput untuk mengikuti kaji selidik ini.

**Bahagian A: Keterangan Peribadi**

[Sila tandakan (✓) dalam kotak yang bersesuaian]

1. Umur (tahun): 16-25  26-35  36-45  46-55  Lebih 55
2. Jantina : Lelaki  Perempuan
3. Bahagian : Bhg.I  Bhg.II  Bhg.III  Bhg.IV  Bhg.V
4. Kelamaan Perkhidmatan: 1-5 tahun  16-20 tahun   
6-10 tahun  21-25 tahun   
11-15 tahun  lebih 26 tahun

5. Dalam Kementerian manakah biskita berkhidmat pada masa ini:

- |                              |                          |                                    |                          |
|------------------------------|--------------------------|------------------------------------|--------------------------|
| Jabatan Perdana Menteri .... | <input type="checkbox"/> | Kementerian Perhubungan .....      | <input type="checkbox"/> |
| Kementerian Pertahanan.....  | <input type="checkbox"/> | Kementerian Pembangunan .....      | <input type="checkbox"/> |
| Kementerian Kewangan .....   | <input type="checkbox"/> | Kementerian Hal Ehwal Dalam Negeri | <input type="checkbox"/> |
| Kementerian Hal Ehwal Luar   |                          | Kementerian Perindustrian dan      |                          |
| Negeri dan Perdagangan ..    | <input type="checkbox"/> | Sumber-Sumber Utama .....          | <input type="checkbox"/> |
| Kementerian Pendidikan ....  | <input type="checkbox"/> | Kementerian Hal Ehwal Ugama .....  | <input type="checkbox"/> |
| Kementerian Kesihatan .....  | <input type="checkbox"/> | Kementerian Kebudayaan, Belia dan  | <input type="checkbox"/> |
|                              |                          | Sukan                              |                          |

6. Bidang Pekerjaan:

- |                              |                          |                                       |                          |
|------------------------------|--------------------------|---------------------------------------|--------------------------|
| Pengurusan/Pentadbiran ..... | <input type="checkbox"/> | Pendidikan .....                      | <input type="checkbox"/> |
| Teknikal/Kejuruteraan .....  | <input type="checkbox"/> | Penyelidikan/Diplomatik .....         | <input type="checkbox"/> |
| Perundangan/Khidmat Nasihat  | <input type="checkbox"/> | Perekonomian/Perancangan .....        | <input type="checkbox"/> |
| Kewangan/Perakaunan .....    | <input type="checkbox"/> | Teknologi Maklumat/ICT .....          | <input type="checkbox"/> |
| Kedoktoran/Kesihatan .....   | <input type="checkbox"/> | Khidmat Masyarakat .....              | <input type="checkbox"/> |
|                              |                          | Lain-lain bidang (sila nyatakan) .... | <input type="checkbox"/> |

**Bahagian B: Penilaian Prestasi Biskita Pada Masa Kini**

[Sila tandakan (✓) dalam kotak yang bersesuaian]

Bagi soalan 7, sila jawab di antara soalan 7(i) [jika biskita dalam Bahagian I dan Bahagian II] **ATAU** soalan 7(ii) [jika biskita dalam Bahagian III dan Bahagian IV]; **ATAU** soalan 7(iii) [jika biskita dalam Bahagian V].

7. Dalam borang penilaian prestasi biskita pada masa ini, terdapat beberapa kriteria umum dalam menentukan gred prestasi biskita. Bagi pendapat biskita, setakat manakah kriteria-kriteria umum tersebut itu penting dalam menilai prestasi sebenar biskita?

7(i) Bagi biskita yang berkhidmat dalam Bahagian I dan II sahaja. Setakat manakah kriteria-kriteria umum berikut ini penting dalam menilai prestasi sebenar biskita? Sila tandakan(√) dalam ruang yang berkenaan.

<b>Kriteria Umum dalam Borang Penilaian Prestasi</b>	<b>Tidak Penting sama sekali (1)</b>	<b>Tidak Penting (2)</b>	<b>Tidak tahu (3)</b>	<b>Penting (4)</b>	<b>Sangat Penting (5)</b>
Pengetahuan kerja					
Ketaatan waktu kerja					
Pengurusan kerja					
Membuat keputusan					
Inovatif					
Komunikasi					
Kebolehpercayaan (Reliability)					
Kepimpinan					
Komitmen					

7(ii) Bagi biskita yang berkhidmat dalam Bahagian III dan IV sahaja. Setakat manakah kriteria-kriteria umum berikut ini penting dalam menilai prestasi sebenar biskita? Sila tandakan(√) dalam ruang yang berkenaan.

<b>Kriteria Umum dalam Borang Penilaian Prestasi</b>	<b>Tidak Penting sama sekali (1)</b>	<b>Tidak Penting (2)</b>	<b>Tidak tahu (3)</b>	<b>Penting (4)</b>	<b>Sangat Penting (5)</b>
Pengetahuan jawatan					
Kedatangan dan ketepatan					
Penyelesaian kerja					
Mutu kerja					
Komunikasi					
Pengendalian mesin/Peralatan Pejabat					
Kebolehan pemahaman					
Sikap/komitmen					
Kelakuan					

7(iii) Bagi biskita yang berkhidmat dalam Bahagian V sahaja. Setakat manakah kriteria-kriteria umum berikut ini penting dalam menilai prestasi sebenar biskita? Sila tandakan(√) dalam ruang yang berkenaan.

<b>Kriteria Umum dalam Borang Penilaian Prestasi</b>	<b>Tidak Penting sama sekali (1)</b>	<b>Tidak Penting (2)</b>	<b>Tidak tahu (3)</b>	<b>Penting (4)</b>	<b>Sangat Penting (5)</b>
Pengetahuan jawatan					
Kedatangan dan ketepatan					
Penyelesaian kerja					



Kesediaan menerima arahan					
Pengendalian mesin/peralatan pejabat					
Hubungan peribadi					
Kelakuan					
Ketulusan/Kejujuran					

Di antara skala (scale) 1 hingga 5, sila nyatakan setakat manakah biskita bersetuju dengan kenyataan berikut yang berhubungkait dengan penilaian prestasi biskita masakini di Kementerian/Jabatan masing-masing?

Bil	Soalan	Sangat Tidak bersetuju	Tidak Bersetuju	Tidak tahu	Bersetuju	Sangat Bersetuju
8.	Saya memahami kriteria penilaian umum dalam borang penilaian prestasi dengan baik	1	2	3	4	5
9.	Kriteria umum dalam borang penilaian prestasi yang dinilai itu adalah sangat adil	1	2	3	4	5
10.	Penilaian prestasi saya masakini adalah berkaitan dengan perkembangan kerjaya saya	1	2	3	4	5
11.	Penilaian prestasi masakini menyumbang kepada keberkesanan organisasi saya secara keseluruhan.	1	2	3	4	5
12.	Format penilaian prestasi dalam borang penilaian prestasi masakini yang menggunakan peratus (percentage) bagi setiap kriteria <i>bukanlah</i> merupakan penilaian yang efektif bagi seseorang pegawai/kakitangan	1	2	3	4	5
13.	Kriteria penilaian prestasi dalam borang penilaian prestasi saya <i>tidak</i> mencerminkan prestasi saya yang sebenar	1	2	3	4	5
14.	Hanyak sedikit masa sahaja diperuntukan untuk proses penilaian prestasi saya. Penilaian prestasi hanya dilihat setakat kerja harian (treated as a mere ritual) oleh pegawai atasan dan kakitangan bawahan sahaja.	1	2	3	4	5
15.	Penilaian prestasi saya masakini hanyalah bagi tujuan mendapatkan bonus tahunan sahaja.	1	2	3	4	5
16.	Bagi pendapat saya, penilaian prestasi masakini adalah sangat berkesan.	1	2	3	4	5
17.	Secara umum, saya telah mendapat grad penilaian prestasi yang saya berhak.	1	2	3	4	5
18.	Produktiviti kerja dalam organisasi dimana saya bertugas telah meningkat dengan adanya sistem penilaian prestasi masakini	1	2	3	4	5
19.	Dengan prestasi kerja saya masakini, secara keseluruhannya saya amat berpuas hati dengan bayaran gaji yang saya terima pada masa ini.	1	2	3	4	5
20.	Secara keseluruhan, saya amat berpuas hati dengan kriteria penilaian prestasi yang ada pada masa ini.	1	2	3	4	5

### Bahagian C : Penambahbaikan dalam Penilaian Prestasi

21. Setakat manakah perkara-perkara berikut ini penting dalam menentukan ketepatan penilaian prestasi pegawai dan kakitangan dalam Kementerian/Jabatan biskita? Sila tandakan (√) dalam ruang yang berkenaan.

Bil	Aspek-aspek dalam Penilaian Prestasi	Tidak Penting sama sekali (1)	Tidak Penting (2)	Tidak tahu (3)	Penting (4)	Sangat Penting (5)
i.	Menentukan sasaran ('goal setting') dan tujuan sebenar penilaian prestasi					
ii.	Pensejajaran ('alignment') matlamat pegawai/kakitangan dengan matlamat organisasi					
iii.	Keadilan dan Ketelusan dalam Penilaian Prestasi					
iv.	Jenis atau bentuk penilaian (seperti bentuk penilaian secara objektif, subjektif atau berorientasikan pasukan)					
v.	Format skala penilaian prestasi ('rating scale format') bagi menentukan prestasi sebenar pegawai/kakitangan					
vi.	Hubungan pegawai penilai dengan pegawai yang dinilai					
vii.	Ganjaran kewangan (seperti bonus) yang berhubungkait dengan prestasi yang cemerlang					

Di antara skala (scale) 1 hingga 5, sila nyatakan setakat manakah biskita bersetuju dengan kenyataan berikut yang berhubungkait dengan penilaian prestasi yang sepatutnya ada dalam sesebuah organisasi?

Bil	Soalan	Sangat Tidak bersetuju	Tidak Bersetuju	Tidak tahu	Berse tuju	Sangat Berset uju
22.	Salah satu aspek penting dalam pengurusan prestasi adalah menetapkan sasaran kerja	1	2	3	4	5
23.	Adalah penting bagi pegawai/kakitangan untuk menyedari tentang tujuan dan objektif sistem pengurusan prestasi	1	2	3	4	5
24.	Pengurusan prestasi perlulah menjurus kepada perkembangan kerja pegawai/kakitangan	1	2	3	4	5
25.	Matlamat kerja pegawai/kakitangan perlulah ditentukan pada permulaan tahun dan disejajarkan dengan matlamat dan strategi organisasi	1	2	3	4	5
26.	Sistem pengurusan prestasi yang berkesan adalah ukuran yang penting dalam menentukan keberkesanan penilaian prestasi pegawai/kakitangan	1	2	3	4	5

Bil	Soalan	Sangat Tidak bersetuju	Tidak Bersetuju	Tidak tahu	Berse tuju	Sangat Berset uju
27.	Prestasi seseorang pegawai/kakitangan perlulah disejajarkan dengan misi dan objektif organisasinya	1	2	3	4	5
28.	Hasil daripada penilaian prestasi pegawai/kakitangan adalah perlu untuk menilai objektif Kementerian/Jabatan masing-masing	1	2	3	4	5
29.	Kriteria penilaian dalam menilai prestasi seseorang pegawai/kakitangan itu hendaklah jelas	1	2	3	4	5
30.	Sistem penilaian prestasi itu perlulah adil ('fair')	1	2	3	4	5
31.	Sistem penilaian prestasi itu perlulah telus ('transparent')	1	2	3	4	5
32.	Jenis atau bentuk penilaian (seperti bentuk penilaian secara objektif, subjektif atau berorientasikan pasukan) dalam menilai prestasi seseorang itu adalah penting bagi mewujudkan penilaian prestasi secara berkesan	1	2	3	4	5
33.	Kriteria penilaian prestasi hendaklah berbentuk <i>objektif</i> (berasaskan kepada mutu dan sasaran kerja yang dapat disiapkan)	1	2	3	4	5
34.	Kriteria penilaian prestasi hendaklah berbentuk <i>subjektif</i> (berasaskan kepada ciri-ciri peribadi pegawai/kakitangan) dan sukar diukur	1	2	3	4	5
35.	Memandangkan kebanyakan pegawai/kakitangan berkhidmat secara berkumpulan, penilaian prestasi sepatutnya berbentuk penilaian secara kumpulan, dan bukannya penilaian individu	1	2	3	4	5
36.	Format skala penilaian prestasi itu adalah penting bagi menentukan prestasi sebenar pegawai/kakitangan	1	2	3	4	5
37.	Format skala penilaian prestasi itu mestilah boleh diukur	1	2	3	4	5
38.	Gred prestasi hendaklah berasaskan kepada setakat mana saya melaksanakan tugas saya dengan baik	1	2	3	4	5
39.	Hubungan yang baik dengan pegawai penilai adalah amat penting	1	2	3	4	5
40.	Pegawai penilai haruslah mempunyai masa yang cukup untuk melihat dan menilai prestasi seseorang itu	1	2	3	4	5
41.	Pegawai penilai dan pegawai yang dinilai perlulah sama-sama menentukan matlamat kerja seseorang pegawai/kakitangan	1	2	3	4	5
42.	Pegawai yang dinilai haruslah berbincang secara terbuka mengenai masalah kerjanya dengan pegawai penilai	1	2	3	4	5

<b>Bil</b>	<b>Soalan</b>	<b>Sangat Tidak bersetuju</b>	<b>Tidak Bersetuju</b>	<b>Tidak tahu</b>	<b>Berse tuju</b>	<b>Sangat Berset uju</b>
43.	Kesejahteraan bahagian/unit dimana pegawai/kakitangan ditempatkan adalah lebih penting dari kepentingan peribadi	1	2	3	4	5
44.	Kejayaan bahagian/unit dimana pegawai/kakitangan ditempatkan adalah lebih penting daripada kejayaan sendiri	1	2	3	4	5
45.	Pegawai penilai memberikan gred prestasi yang sama kepada pegawai/kakitangan bawahannya untuk mengelakkan daripada perselisihan dan persaingan sesama sendiri	1	2	3	4	5
46.	Prestasi kerja saya adalah berasaskan kepada kualiti dan jumlah tugas kerja yang disiapkan dan bukannya bersandarkan kepada personaliti atau peringkat jawatan	1	2	3	4	5
47.	Adalah penting untuk mengekalkan keharmonian sesama pekerja, pegawai atasan dan bawahan dalam organisasi saya	1	2	3	4	5
48.	Seseorang pekerja sepatutnya tidak mempertikaikan apa jua keputusan pihak pengurusan	1	2	3	4	5
49.	Pihak pengurusan sepatutnya membuat kebanyakan keputusan tanpa melibatkan pekerja bawahan	1	2	3	4	5
50.	Pihak pengurusan sepatutnya tidak memberikan tugas yang penting kepada pekerja bawahannya	1	2	3	4	5
51.	Adalah perlu bagi pihak pengurusan untuk menggunakan kuasanya sebagai ketua jika berhadapan dengan pekerja bawahannya	1	2	3	4	5
52.	Walaupun pada masa ini penilaian prestasi dikaitkan dengan bonus tahunan, terdapat keperluan bagi mewujudkan satu skim insentif berbentuk ganjaran kewangan bagi mereka yang mendapat gred prestasi 'Cemerlang (A)' dalam penilaian prestasi tahunannya.	1	2	3	4	5
53.	Pengiktirafan dan ganjaran sepatutnya berasaskan kepada mutu kerja dan 'merit' dalam organisasi dimana saya ditempatkan	1	2	3	4	5

Akhir sekali, fikirkan mengenai penilaian prestasi biskita yang terkini dan jawab soalan berikut:-

54. Penilaian prestasi saya yang terkini adalah

- A (Cemerlang)
- B (Sangat Baik)
- C (Baik)
- D (Memuaskan)

- E (Memerlukan pembaikan)
- F (Tidak memuaskan)
- Tidak dinilai (sila nyatakan sebab)

.....

55. Bagi pendapat biskita, bagaimana kesesuaian ('appropriateness') gred penilaian ini?

Sangat Bersesuaian   
Tidak bersesuaian

Bersesuaian  Tidak tahu   
Tidak bersesuaian sama sekali

Jika sekiranya biskita ada sebarang komen mengenai sistem penilaian prestasi masa kini atau sistem penilaian prestasi akan datang yang biskita inginkan, sila nyatakan di bawah ini.

**University of Manchester  
School of Environment and Development**

***[Employee Performance Appraisal Satisfaction in the Brunei Civil Service]***

**CONSENT FORM**

If you are happy to participate please read the consent form and initial it:

**Please  
Initial  
Box**

1. I confirm that I have read the attached information sheet on the above project and have had the opportunity to consider the information and ask questions and had these answered satisfactorily.
2. I understand that my participation in the study is voluntary and that I am free to withdraw at any time without giving a reason and without detriment to any treatment/service

I agree to take part in the above project

_____	_____	_____
Name of participant	Date	Signature
_____	_____	_____
Name of person taking consent	Date	Signature
_____	_____	_____

**University of Manchester  
School of Environment and Development**

**Participant Information Sheet**

**What is the title of the research?**

Employee Performance Appraisal Satisfaction in the Brunei Civil Service

**Who will conduct the research?**

The research will be conducted by Norfarizal Othman, Ph.D candidate at the Institute for Development Policy and Management, School of Environment and Development, University of Manchester, Oxford Road Manchester, M13 9PL, United Kingdom

**What is the aim of the research?**

This research aims to examine the factors and determinants affecting employee performance, with a particular emphasis on how performance are viewed and measured in the public sector of Brunei. The research objectives among others are as follows:-

- i. To identify the rationale and theoretical perspectives of performance management; their applications and limitations particularly within the public sector domain;
- ii. To examine the attributes of the performance appraisal system used in evaluating individual employee performance in the public sector of Brunei Darussalam;
- iii. To develop a conceptual framework how employees across all levels in the public sector of Brunei develop their attitudes and behaviours regarding performance evaluation method in the public sector;
- iv. To test the conceptual framework in Brunei and determine the extent towards which western developed theories can be applied in a developing country; and,
- v. To draw out key practical recommendations and approaches for a better performance measurement systems in the public service of Brunei.

**Why have I been chosen?**

The participants for the interviews consist of about 20 employees within the Brunei's Civil Service.

**What would I be asked to do if I took part?**

Participants are asked a series of questions relating to various aspects such as the effectiveness of the current performance appraisal system, types and formats of appraisal used, working culture and environment as perceived by Brunei civil servants.

**What happens to the data collected?**

The data will solely be used for the purpose this research thesis.

**How is confidentiality maintained?**

All participants will be assured anonymity and confidentiality of the responses will be guaranteed. All the participants will be ensure anonymity and confidentiality in which all the data (including interviewee name, job designation and ministry/department) will be coded.

Participants' data will be kept in researcher's private data stick in a locked draw and to data stick is to be access using password. It is necessary not only to use password-protected USB stick but to have the laptop or home pc and the stick is encrypted. In the presentation of the data in the thesis chapters, all data will be encrypted in such a way that will not be identified.

**What happens if I do not want to take part or if I change my mind?**

It is up to you to decide whether or not to take part, it is entirely voluntary. If you do decide to take part, I will describe the study and go through the information sheet. You will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time or choose not to answer certain questions without giving a reason and without detriment to yourself.

**Will I be paid for participating in the research?**

The participation in this research is entirely voluntary and no payment will be given.

**What is the duration of the research?**

Approximately a-thirty minutes semi-structured interview.

**Where will the research be conducted?**

The research will take place in Public Service Department of Brunei. Interviews are done in the respondent's office in respective ministry or department. When the respondent decide not to be interviewed in his/her office, interview arrangement will be done in a private room in Public Service Department in Brunei.

**Will the outcomes of the research be published?**

The outcomes of the research will be used for the purpose of the Ph.D thesis. The results of the findings may be published locally in Brunei for the benefit of the civil service. The participants taking part in this research will not be identified in any report/publication unless they have given their consent.



## **Contact for further information**

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## **What if something goes wrong?**

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**APPENDIX 8**

**DESCRIPTIVE STATISTICS WITH RESULTS OF SKEWNESS AND KURTOSIS ANALYSIS**

	N	Minimum	Maximum	Mean	SD.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
CAS1	355	1	5	4.04	.602	-1.032	.129	3.989	.258
CAS2	355	1	5	3.56	.846	-.777	.129	.437	.258
CAS3	355	1	5	3.93	.866	-1.151	.129	1.668	.258
CAS4	355	1	5	3.66	.892	-.860	.129	.444	.258
CAS5*	355	1	5	2.56	.977	.340	.129	-.780	.258
CAS6*	355	1	5	2.97	1.106	-.164	.129	-1.081	.258
CAS7*	355	1	5	2.53	1.028	.359	.129	-.814	.258
CAS8*	355	1	5	3.17	1.239	-.353	.129	-1.127	.258
CAS9	355	1	5	3.17	1.018	-.237	.129	-.774	.258
CAS10	355	1	5	3.79	.917	-.955	.129	.765	.258
CAS11	355	1	5	3.19	.990	-.374	.129	-.701	.258
CAS12	355	1	5	3.48	1.012	-.764	.129	-.227	.258
CAS13	355	1	5	3.48	.989	-.689	.129	-.297	.258
GSP1	355	2	5	4.28	.581	-.560	.129	1.829	.258
GSP2	355	3	5	4.35	.564	-.146	.129	-.726	.258
GSP3	355	2	5	4.40	.565	-.354	.129	-.206	.258
APG1	355	2	5	4.21	.648	-.545	.129	.694	.258
APG2	355	2	5	4.23	.600	-.381	.129	.673	.258
APG3	355	2	5	4.09	.689	-.739	.129	1.260	.258
APG4	355	2	5	4.01	.731	-.669	.129	.725	.258
FAS1	355	3	5	4.45	.542	-.232	.129	-1.087	.258
FAS2	355	2	5	4.66	.541	-1.626	.129	3.530	.258
FAS3	355	3	5	4.65	.506	-.961	.129	-.352	.258
TEM1	355	1	5	4.25	.658	-.741	.129	1.559	.258
TEM3	353	1	5	3.69	.928	-.763	.130	.307	.259
TEM4	355	1	5	2.95	1.084	.309	.129	-.918	.258
RSF1	355	1	5	4.05	.677	-.773	.129	1.860	.258
RSF2	355	1	5	4.00	.703	-.494	.129	.733	.258
RSF3	355	2	5	4.22	.641	-.820	.129	1.990	.258
ARC2	355	2	5	4.48	.564	-.783	.129	1.241	.258
ARC3	355	2	5	4.24	.629	-.572	.129	.996	.258
ARC4	355	3	5	4.45	.525	-.073	.129	-1.343	.258
IGC1	355	2	5	4.07	.872	-.857	.129	.229	.258
IGC2	355	1	5	3.84	.954	-.677	.129	-.216	.258
IGC3*	355	1	5	3.40	1.178	-.546	.129	-.707	.258
IGC4	355	1	5	4.19	.828	-1.359	.129	2.625	.258
PWD1	355	1	5	4.50	.608	-1.486	.129	5.227	.258
PWD2*	355	1	5	3.00	1.152	-.078	.129	-1.184	.258
PWD3*	355	1	5	3.15	1.135	-.232	.129	-1.105	.258
PWD4*	355	1	5	3.14	1.127	-.399	.129	-.931	.258
PWD5	355	1	5	3.54	.966	-.702	.129	-.282	.258
PFP1	355	1	5	4.10	1.038	-1.082	.129	.365	.258
PFP2	355	2	5	4.35	.687	-.909	.129	.829	.258
Valid N	353								

[Note: CAS=current appraisal system; GSP= Goal setting and purposes of performance appraisal; APG= Alignment of personal objectives with organisational goals; FAS= Perceived fairness of appraisal system; TEM= Types of evaluation measures; RSF= Rating scales format; ARC= Appraiser-appraisee relationship and credibility of appraiser; IGC= In-group collectivism; PWD=power distance; and PFP=pay-for-performance]

**NORMALITY ASSESSMENT USING KOLMOGOROV-SMIRNOV  
AND SHAPIRO-WILK TESTS**

**Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
CAS1	.376	353	.000	.681	353	.000
CAS2	.324	353	.000	.828	353	.000
CAS3	.347	353	.000	.780	353	.000
CAS4	.343	353	.000	.816	353	.000
CAS5*	.279	353	.000	.866	353	.000
CAS6*	.237	353	.000	.879	353	.000
CAS7*	.275	353	.000	.871	353	.000
CAS8*	.288	353	.000	.860	353	.000
CAS9	.234	353	.000	.890	353	.000
CAS10	.338	353	.000	.815	353	.000
CAS11	.253	353	.000	.875	353	.000
CAS12	.337	353	.000	.823	353	.000
CAS13	.325	353	.000	.835	353	.000
GSP1	.351	353	.000	.698	353	.000
GSP2	.336	353	.000	.726	353	.000
GSP3	.322	353	.000	.716	353	.000
APG1	.304	353	.000	.771	353	.000
APG2	.335	353	.000	.746	353	.000
APG3	.319	353	.000	.772	353	.000
APG4	.317	353	.000	.801	353	.000
FAS1	.322	353	.000	.697	353	.000
FAS2	.419	353	.000	.607	353	.000
FAS3	.422	353	.000	.625	353	.000
TEM1	.291	353	.000	.765	353	.000
TEM3	.313	353	.000	.845	353	.000
TEM4	.241	353	.000	.880	353	.000
RSF1	.332	353	.000	.769	353	.000
RSF2	.302	353	.000	.811	353	.000
RSF3	.320	353	.000	.726	353	.000
ARC2	.328	353	.000	.679	353	.000
ARC3	.316	353	.000	.753	353	.000
ARC4	.342	353	.000	.681	353	.000
IGC1	.279	353	.000	.808	353	.000
IGC2	.289	353	.000	.845	353	.000
IGC3*	.282	353	.000	.871	353	.000
IGC4	.286	353	.000	.761	353	.000
PWD1	.335	353	.000	.667	353	.000
PWD2*	.248	353	.000	.872	353	.000
PWD3*	.271	353	.000	.867	353	.000
PWD4*	.273	353	.000	.867	353	.000
PWD5	.337	353	.000	.823	353	.000
PFP1	.254	353	.000	.790	353	.000
PFP2	.286	353	.000	.758	353	.000

a. Lilliefors Significance Correction

**INITIAL COMPONENT MATRIX FOR EXPLORATORY FACTOR ANALYSIS**

**Component Matrix**

Variables	Component							
	1	2	3	4	5	6	7	8
FAS1	.788							
FAS3	.716							
FAS2	.644							
APG1		.787						
APG2		.719						
APG3		.682						
APG4		.641						
ARC3			.769					
ARC2			.731					
ARC4			.690					
GSP3				.761				
GSP2				.732				
GSP1				.719				
RSF3					.714			
RSF1					.690			
RSF2					.617			
TEM1						.791		
TEM2						.731		
TEM3						.725		
PWD3							.770	
PWD2							.709	
PWD4							.652	
PWD5							.538	
IGC3							.525	
IGC1							.519	
IGC2							.462	
PWD1							.418	
IGC4							.414	
PFP1								.726
PFP2								.717

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Note:

Variables associated with GSP= Goal setting and purposes of performance appraisal; APG= Alignment of personal objectives with organisational goals; FAS= Perceived fairness of appraisal system; TEM= Types of evaluation measures; RSF= Rating scales format; ARC= Appraiser-appraisee relationship and credibility of appraiser; IGC= In-group collectivism; PWD=power distance; and PFP=pay-for-performance

**APPENDIX 11****CONSTRUCT CORRELATIONS (ESTIMATES) RESULTS FOR  
NOMOLOGICAL VALIDITY OF MODEL**

			Estimate	S.E.	C.R.	P	Label
Q24GSP3	<---	SettingGoal	1.000				
Q23GSP2	<---	SettingGoal	.960	.085	11.237	***	
Q22GSP1	<---	SettingGoal	.979	.088	11.149	***	
Q28APG4	<---	Alignmnt	1.000				
Q27APG3	<---	Alignmnt	.999	.096	10.387	***	
Q26APG2	<---	Alignmnt	.874	.084	10.424	***	
Q25APG1	<---	Alignmnt	.932	.090	10.331	***	
Q31FAS3	<---	Fair	1.000				
Q30FAS2	<---	Fair	.960	.061	15.818	***	
Q29FAS1	<---	Fair	.647	.062	10.376	***	
Q34TEM3	<---	Types	1.000				
Q33TEM2	<---	Types	1.046	.178	5.891	***	
Q32TEM1	<---	Types	1.167	.181	6.453	***	
Q38RSF3	<---	Format	1.000				
Q37RSF2	<---	Format	1.119	.125	8.938	***	
Q36RSF1	<---	Format	1.075	.120	8.928	***	
Q42ARC4	<---	Relationship	1.000				
Q41ARC3	<---	Relationship	1.331	.118	11.298	***	
Q40ARC2	<---	Relationship	1.093	.103	10.654	***	
Q53PFP2	<---	PayPerf	1.000				
Q52PFP1	<---	PayPerf	1.035	.187	5.545	***	

Note: \*\*\*\* indicates significant at  $p < 0.001$

**Standardized Regression Weights:  
(Group number 1 - Default model)**

			Estimate
Q24GSP3	<---	SettingGoal	0.708
Q23GSP2	<---	SettingGoal	0.681
Q22GSP1	<---	SettingGoal	0.675
Q28APG4	<---	Alignmnt	0.64
Q27APG3	<---	Alignmnt	0.677
Q26APG2	<---	Alignmnt	0.681
Q25APG1	<---	Alignmnt	0.673
Q31FAS3	<---	Fair	0.904
Q30FAS2	<---	Fair	0.812
Q29FAS1	<---	Fair	0.546
Q34TEM3	<---	Types	0.396
Q33TEM2	<---	Types	0.514
Q32TEM1	<---	Types	0.653
Q38RSF3	<---	Format	0.642
Q37RSF2	<---	Format	0.655
Q36RSF1	<---	Format	0.653
Q42ARC4	<---	Relationship	0.679
Q41ARC3	<---	Relationship	0.754
Q40ARC2	<---	Relationship	0.691
Q53PPF2	<---	PayPerf	0.711
Q52PPF1	<---	PayPerf	0.487

**Correlations: (Group number 1 - Default model)**

			Estimate
SettingGoal	<-->	Alignmnt	0.679
SettingGoal	<-->	Fair	0.55
SettingGoal	<-->	Types	0.712
SettingGoal	<-->	Format	0.552
SettingGoal	<-->	Relationship	0.702
SettingGoal	<-->	PayPerf	0.605
Alignmnt	<-->	Fair	0.445
Alignmnt	<-->	Types	0.637
Alignmnt	<-->	Format	0.624
Alignmnt	<-->	Relationship	0.621
Alignmnt	<-->	PayPerf	0.505
Fair	<-->	Types	0.653
Fair	<-->	Format	0.486
Fair	<-->	Relationship	0.605
Fair	<-->	PayPerf	0.414
Types	<-->	Format	0.726
Types	<-->	Relationship	0.753
Types	<-->	PayPerf	0.334
Format	<-->	Relationship	0.637
Format	<-->	PayPerf	0.479
Relationship	<-->	PayPerf	0.506