

**THE INFLUENCE OF CULTURE ON PERCEPTION OF
FAIRNESS ON ASSESSMENT CENTRES FOR STAFF
SELECTION**

**(PENGARUH BUDAYA TERHADAP PERSEPSI
KEADILAN DALAM PENILAIAN BERPUSAT UNTUK
PENGAMBILAN STAF)**

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ABSTRACT

Assessment centres (ACs) are a popular technique that has been used and studied for at least 50 years, primarily in Western countries. ACs are used to facilitate human resource decisions, such as selection and promotion decisions, diagnosing training needs, and facilitating employee development. The proliferation of ACs around the world has raised questions about their application in specific countries. Although a number of studies have found that differences in cultural settings across countries may have an impact on human resource practices and strategies, very little attention has been given specifically to ACs. As the AC approach has also been used in developing countries such as Malaysia, it is important to understand how these factors in different cultural settings may influence the implementation of ACs and how this might differ from its implementation in more developed nations. Therefore, this study aims to respond to this research gap and contribute to the body of knowledge in this area by exploring the implementation of ACs in Malaysia, as an example of an Eastern, and developing country. Using the model of cultural fit and organisational justice theory, this study aims to explore how the national culture may influence the design and implementation of assessment centres in Malaysian public sectors. This exploratory study involves two stages of data collection, semi-structured interviews, and survey questionnaires. The respondents for the first study (semi-structured interview) are personnel who have had experience as developer/assessors, and also those who have had experience as participants, in ACs in various ministries in Malaysia. The first study aims to explore how assessors and participants perceive the design, scoring methods, and feedback associated with traditional approach *dimension-based assessment centres* and alternative approach *task-based assessment centres* and how culture influence the process. For the second study (survey questionnaires), the respondents are from those who have had experience as participants. In total, a survey of 405 respondents was successfully carried out and 381 useful feedbacks were analysed. This second study utilises organisational justice theory in exploring participants' reactions to the fairness of ACs design, implementation and outcomes. This organisational justice consist of distributive justice rules and 10 procedural justice rules that fall under three broad categories were tested. A total of thirteen hypotheses have been put forward to test the relationships amongst the culture values, distributive justice latent, three categories under procedural justice, and outcome after attending ACs. Structural Equation Modelling (SEM) with SmartPLS software using Partial Least Squares (PLS) estimation is used for modelling analysis. Findings from the first study showed that Malaysia is a society that put emphasis on working in group, and accept the importance of power distance, and rely on high communication context. These socio-cultural findings reflect the internal work culture which focus more on working in group, maintaining harmony, and respect to seniority in decision-making process. Meanwhile, findings for study two showed that collectivism and relationship preferences as the most significant cultural variable in influencing reaction on fairness of ACs. In addition, this study also showed positive outcome related to attitude, affect and recommendation towards ACs. Findings from this research also has closed the gap by highlighting the practice, acceptance and outcome from attending ACs in Malaysian public sector from holistic perspectives which include assessors, participants and module developers.

ABSTRAK

Assessment centres (ACs) adalah teknik yang popular dan telah digunakan dan dipelajari selama sekurang-kurangnya 50 tahun, terutamanya di negara-negara Barat. Ianya digunakan untuk membantu dalam membuat keputusan berkaitan sumber manusia, seperti pemilihan dan promosi, menilai keperluan latihan, dan pembangunan pekerja. Peningkatan penggunaan ACs di seluruh dunia telah menimbulkan persoalan tentang aplikasi kaedah ini di pelbagai negara. Walaupun beberapa kajian mendapati bahawa perbezaan budaya mungkin memberi kesan terhadap amalan dan strategi sumber manusia, namun hanya sedikit tumpuan diberikan kepada ACs. Disebabkan pendekatan ACs juga telah digunakan di negara-negara membangun seperti Malaysia, maka adalah penting untuk memahami bagaimana perbezaan budaya dan faktor-faktor lain mempengaruhi pelaksanaan ACs dan bagaimana ianya berbeza dengan negara-negara yang lebih maju. Sehubungan dengan itu, kajian ini bertujuan untuk mengurangkan jurang pengetahuan yang wujud dan menyumbang kepada penambahan ilmu pengetahuan dalam bidang ini dengan meneroka pelaksanaan ACs di Malaysia, sebagai contoh sebuah negara timur, dan membangun. Dengan menggunakan *model of cultural fit* dan teori *organisational justice*, kajian ini dilakukan bertujuan untuk meneroka bagaimana budaya nasional boleh mempengaruhi reka bentuk dan pelaksanaan ACs di sektor awam Malaysia. Kajian ini melibatkan dua peringkat pengumpulan data, temubual separa berstruktur, dan soal selidik tinjauan. Responden untuk kajian pertama (temubual separa berstruktur) adalah kakitangan yang mempunyai pengalaman sebagai pembangun/penilai, dan juga mereka yang berpengalaman sebagai peserta, di ACs di pelbagai kementerian di Malaysia. Kajian pertama bertujuan untuk meneroka bagaimana penilai dan peserta melihat reka bentuk, kaedah pemarkahan, dan maklum balas yang berkaitan dengan ACs berdasarkan *dimension-based assessment centres* dan kaedah alternative, *task-based assessment centres* serta budaya mempengaruhi proses tersebut. Untuk kajian kedua (soal selidik tinjauan), responden adalah dari mereka yang mempunyai pengalaman sebagai peserta. Secara keseluruhan, tinjauan terhadap 405 responden telah berjaya dijalankan dan 381 maklum balas yang berguna telah dianalisis. Kajian kedua ini menggunakan teori *organisational justice* dalam meneroka tindak balas peserta terhadap kesesuaian reka bentuk, pelaksanaan dan hasil ACs. *Organisational justice* ini terdiri daripada *distributive justice* dan 10 dimensi *procedural justice* yang diletakkan di bawah tiga kategori telah diuji. Sejumlah tiga belas hipotesis telah dikemukakan untuk menguji hubungan di antara nilai-nilai budaya, *distributive justice*, tiga kategori di bawah *procedural justice*, dan kesan selepas AC. Pemodelan Persamaan Struktur (SEM) dengan perisian SmartPLS menggunakan *Partial Least Squares* (PLS) digunakan untuk analisis pemodelan. Penemuan dari kajian pertama menunjukkan bahawa Malaysia adalah sebuah masyarakat yang memberi penekanan kepada bekerja dalam kumpulan, menerima perbezaan kuasa, dan bergantung kepada komunikasi berkonteks tinggi. Penemuan sosio-budaya ini mencerminkan budaya kerja dalaman yang memberi tumpuan kepada bekerja dalam kumpulan, mengekalkan keharmonian, dan menghormati kekananan dalam proses membuat keputusan. Sementara itu, penemuan untuk kajian kedua menunjukkan bahawa *collectivism and relationship preferences* sebagai pemboleh ubah budaya yang paling penting dalam mempengaruhi tindak balas terhadap penerimaan ACs. Di samping itu, kajian ini juga menunjukkan hasil positif yang berkaitan dengan sikap, kesan dan cadangan terhadap ACs. Penemuan daripada penyelidikan ini juga telah merapatkan jurang ilmu dengan membincangkan amalan, penerimaan dan hasil daripada menghadiri AC dalam sektor awam Malaysia dari perspektif yang holistik melibatkan penilai, peserta dan pembangun modul.

TABLE OF CONTENT

CHAPTER 1 INTRODUCTION	1
1.1 Introduction	1
1.2 Research Background	1
1.3 Background and Statement of Problem	2
1.4 Significance of the Study	3
1.5 Research Scope	3
1.6 Research Objectives	4
1.7 Research Questions	4
1.8 Conceptual Framework	5
CHAPTER 2 LITERATURE REVIEW	7
2.1 Introduction	7
2.2 Definition and Concept of Culture	7
2.3 General Background of Malaysia and its Culture	8
2.3.1 Power Distance and Preference of Hierarchy	9
2.3.2 Collectivism and Relationship Preferences	13
2.3.3 Communication Context	14
2.4 History and Background of Assessment Centres	15
2.5 Cultural Implications for the Assessment Process	19
2.5.1 Job Analysis	19
2.5.2 Exercises	20
2.5.3 Training	21
2.5.4 Selection of Competencies/Dimensions	22
2.5.5 Feedback	23

2.5.6	Dimension-based and Task-based Design	23
2.6	Theoretical Implications	25
2.6.1	Model of Cultural Fit	25
2.6.2	Organisational Justice Theory	27
2.7	Hypothesis Development	30
2.8	Summary	35
CHAPTER 3 METHODOLOGY		36
3.1	Introduction	36
3.2	Overview of Research Methodology	36
3.3	Research Philosophy	38
3.4	Research Approach	38
3.5	Mixed Method	39
3.6	Mixed Method Research Design	41
3.7	Research Participants	43
3.8	Qualitative Research	44
3.8.1	Qualitative Data Collection Process	45
3.8.2	Pilot Study for Qualitative Research	46
3.8.3	Participants' Background	47
3.8.4	Qualitative data analysis process	50
3.9	Quantitative Research	51
3.9.1	Development of the Questionnaires	51
3.9.2	Pre-Study	56
3.9.3	Study Population and Sampling	58
3.9.4	Reliability	58
3.9.5	Data Collection	59

3.10	Statistical Techniques for Data Analysis	59
3.10.1	Descriptive Analysis	59
3.10.2	Correlation Analysis	59
3.10.3	Partial Least Squares Path Modelling	59
3.10.4	Model Evaluation	62
3.10.5	Evaluation of Measurement Model / Outer Model	63
3.10.6	Evaluation of Structural Model	65
3.11	Summary	67
CHAPTER 4 QUALITATIVE FINDINGS		69
4.1	Introduction	69
4.2	Findings from the document review	71
4.3	Summary	74
CHAPTER 5 QUANTATIVE DATA ANALYSIS AND RESULTS		75
5.1	Introduction	75
5.2	Response Rate	75
5.3	Data Screening and Preliminary Analysis	76
5.3.1	Outlier	76
5.3.2	Multicollinearity	76
5.3.3	Data Distribution	78
5.3.4	Common Method Bias	79
5.4	Descriptive Analysis	79
5.4.1	Respondents and demographic profiles	79
5.4.2	Culture	80
5.4.3	Organisational Justice	81

5.4.4	After AC	82
5.5	Model Evaluation	83
5.5.1	Assessment of the Measurement Model	83
5.5.2	Assessment of the Structural Model	91
5.6	Conclusion	100
CHAPTER 6 DISCUSSIONS AND CONCLUSIONS		102
6.1	Introduction	102
6.2	A Synopsis of the Study	102
6.3	Discussion on Key Findings of the Study	103
6.3.1	Fundamental of Malaysian Public Sector Assessment Centres Design	103
6.3.2	The Meet between Sociocultural, Work Culture and Assessment Centres	105
6.3.3	Does Culture Matters on Acceptance of Assessment Centres?	111
6.4	Contribution of the Research to Assessment Centre Knowledge and Scholarship	117
6.5	Limitation of the Study	120
6.6	Recommendation for Future Research	120
6.7	Summary	121

LIST OF TABLES

Table 2-1: Power Distance Index	10
Table 2-2: Cultural dimensions, their descriptions	15
Table 3-1: Respondents' profiles, interview 1	48
Table 3-2: Respondents' profiles, interview 2	49
Table 3-3: Construct and items for Section A	53
Table 3-4: Constructs and items for section B	55
Table 4-1 Summary of qualitative findings	70
Table 4-2: Samples of Dimensions/Competencies and Activities in ACs for Personnel Selection	73
Table 5.1: Correlations among constructs	77
Table 5.2: Variance Inflation Factor and Tolerance	78
Table 5.3: Test of Normality	78
Table 5.4: Demographic Profiles	79
Table 5.5: Descriptive Statistics for Cultural Constructs	80
Table 5.6: Descriptive Statistics of Procedural Justice	81
Table 5.7: Descriptive Statistics of Distributive Justice	82
Table 5.8: Descriptive Statistics of After AC	82
Table 5.9: Results of Reliability	83
Table 5.10: Loadings of indicators, CR and AVE	84
Table 5.11: Loadings and Cross Loadings of Indicators	86
Table 5.12: Fornell and Larcker	88
Table 5.13: HTMT analysis	90
Table 5.14: Path Coefficient and Hypothesis testing	95
Table 5.15: f^2 Effect size	99
Table 5.16: Predictive Relevance (Q^2)	100
Table 6.1: Results of Web Search on 11 September 2017	113

LIST OF FIGURES

Figure 1-2: Conceptual Frameworks	6
Figure 2-1: The model of cultural fit	26
Figure 2-2: The model of organisational justice	29
Figure 2-4: The components of Distributive Justice Rules	30
Figure 2-5: Hypothesised Model	35
Figure 3-1: Exploratory Design: Variables/Taxonomy Development Model	42
Figure 3-2: Mixed Method Process for this study	44
Figure 3-3: The Likert scale used	55
Figure 5-1: Path coefficient of structural model	92
Figure 5-2: Bootstrapping analysis of the research model	93
Figure 5-3: R-square adjusted	98
Figure 6-1: Suggested Model for Future Research	122

The logo for UIMP (Universiti Malaysia Perlis) is a large, downward-pointing arrow shape. It is composed of four triangular sections meeting at a central point. The top-left and bottom-right sections are light blue, while the top-right and bottom-left sections are a slightly darker shade of blue. The letters 'UIMP' are written in a bold, white, sans-serif font across the center of the arrow.

UIMP

CHAPTER 1

INTRODUCTION

1.1 Introduction

This research explores assessment centre (AC) practices in the Malaysian public sector. The purpose of this chapter is to outline the background and rationale of the study, describe its significance, research objectives, research questions and conceptual research framework for this study.

1.2 Research Background

Assessment centre (AC) is a popular technique used in human resource management (HRM) and have been widely studied over the last five decades (Cahoon, Bowler, & Bowler, 2012; Thornton, 2011). The approach involves multiple assessment processes, where a group of participants takes part in exercises and is observed by a team of trained assessors who evaluate each participant against a number of predetermined, job-related behaviours (Ballantyne & Povah, 2004; Cahoon et al., 2012; International Task Force on Assessment Center Guidelines, 2009; Lanik & Gibbons, 2011; Rupp et al., 2015; Thornton & Rupp, 2006; Thornton, Rupp, & Hoffman, 2014). Scholars suggested that ACs may be able to help an organisation obtain a large amount of information about a person in a relatively short period of time (Gibbons & Rupp, 2009). This information is useful to facilitate decisions for selection or promotion purposes, to diagnose training needs, or to facilitate employee development (Ballantyne & Povah, 2004; Cahoon et al., 2012; Rupp et al., 2015; Thornton & Rupp, 2006). As a result, this approach is now widely used by organisations in many countries, not only for managerial positions but also for non-managerial positions at different levels (Lanik & Gibbons, 2011; Lievens & Thornton, 2005).

ACs have gained popularity in HRM practice in the Malaysian public sector since the 1990s. The suggestion of using an ACs approach was first proposed by Hamid, the Chief Secretary of the Government of Malaysia, at the Third Conference of Public Service Commissions in 1993 (Hamid, 1993). The suggestion was made as part of the effort by the government to reform human resource practice in the public sector. Hamid (1993) suggested that ACs should be used to improve the process of selecting suitable candidates to work in the government sector. At the federal level, the AC approach was used for the first time as part of the process for selection of Administrative and Diplomatic Officers in 1998. The government judged the approach to be a success in improving transparency in the selection process and helping measure candidates' competencies and abilities, and the use of ACs was extended for selection purposes to three other positions in 2009 (Public Service Commission of Malaysia, 2011). These were Accountants, Youth and Sports Officers, and Islamic Affairs Officers. In addition, four states (Johor, Kelantan, Terengganu and Kedah) also use ACs in the selection of their Administrative Officers.

1.3 Background and Statement of Problem

The rapid increase in the number of ACs around the world however, has raised questions about the application of this approach in diverse countries. Although scholars explained that the success of this approach is due to its versatility and adaptability to the different purposes of the AC, as well as to cultural, societal, and organisational requirements (Thornton, 2011). However, literature search shows that there has been very limited research carried out in the field of ACs to support these suggestions including the practice in for Malaysia.

In relation to this, scholars urged that it is important to understand how differences in cultural settings may influence ACs implementation and how such factors might differ from one nation to another. Indeed, there is a general lack of research into the implementation and effectiveness in developing countries in spite of a widespread growth in their use in recent years (Krause & Thornton, 2009). As Howard (1997, p.17) put it, "There seems to be no limits on the kinds or locations of organizations that can make use of assessment centers. How well the method translates to these different sites needs further study". In the same vein, Krause (2010) and Povah (2011) highlighted that the region-specific approach is very vital as the findings of AC applications from one country

or region cannot be generalised to other countries or regions due to the social, economic, and educational circumstances differ from one country to another. Moses (2008) also supported this argument, commenting that the basic characteristics of one AC are not generally applicable to all ACs. This leads to the question of whether the use of ACs may, or may not, be appropriate for adoption in other cultures. Therefore, scholars suggested that AC users needed to decide which aspects of ACs should be adopted, and what adaptations were needed to accommodate the unique requirements of different cultural settings (Lievens & Thornton, 2005).

In this context, as currently there is no local Malaysian guideline in designing and implementing AC, therefore it shows that it is important for this study to explore how adaptation is made by Malaysian government to make sure the design and implementation of AC is valid and suitable with local culture and context. Therefore, this study responds to this persistent and significant research gap. It is hoped that by having a good assessment system will help the government in recruiting the most suitable candidates.

1.4 Significance of the Study

Although ACs play an important role in reforming HR practice in the Malaysian public sector, it is not clear how adaptation has been used to ensure that the ACs suit the local culture and other requirements. The literature search suggests that since Hamid's recommendation in 1993 and its implementation in 1998, there is limited evidence to support how the Malaysian government adopts ACs, or how local cultural values influence their design, implementation and acceptance. As a result, there is a big gap in knowledge on how adaptations are made by the Malaysian Government in designing and implementing ACs practice as according to local context and Malaysian cultural settings, and how these local context and culture influence the acceptance of ACs. Therefore, it is the aim of this study to fill in the blanks and to contribute to a better understanding of the issues associated with ACs practice in Malaysian public sectors.

1.5 Research Scope

This study aims to develop a framework to explain the relation between culture and AC practices in the Malaysian public sector. To explore this issue, assessors and participants in AC programmes, as well as officers-in-charge of human resource

departments, are identified as individuals who have direct relevant experience. Thus, this research is exploratory in nature and focuses on the self-perceptions of respondents' experiences and how they are seen to relate to cultural influences.

1.6 Research Objectives

The main objective of the current study was to explore the relation between culture and AC practices in the Malaysian public sector. Therefore, in order to guide the research efforts, the following six research objectives (RO) were established:

- i. To explore the current practices of ACs in the Malaysian public sector.
- ii. To investigate assessors' and participants' perception towards the design, scoring methods, and feedback associated with traditional dimension-based ACs and task-based ACs in Malaysia.
- iii. To explore how cultural dimensions might influence the design and implementation of Malaysian ACs.
- iv. To develop a model of relationship between culture, organisational justice and acceptance of ACs.
- v. To empirically evaluate the hypothesised model of culture, organisational justice and acceptance of ACs using partial least squares path modelling.

1.7 Research Questions

This research specifically aims to answer the following research questions:

- i. What are the current practices of ACs in the Malaysian public sector?
- ii. How do assessors and participants perceive the design, scoring methods, and feedback associated with traditional dimension-based ACs and task-based ACs in Malaysia?
- iii. How do differences in cultural dimensions influence the design and implementation of Malaysian ACs?
- iv. What is the relationship between cultural dimensions and organisational justice of ACs?
- v. What is the relationship between organisational justice and acceptance of ACs?

The first two questions are designed to add a specific empirical contribution to knowledge, whereas the other three research question utilises the insights provided from the research to deepen understanding of the significance of cross-cultural differences in the international adaptation of conventional HR techniques. Qualitative approach is used to answer the first three research questions. For the fourth and fifth research questions, quantitative approach are utilised to analyse the model for cultural impacts on ACs practice and acceptance in Malaysian Public Sectors.

1.8 Conceptual Framework

As mentioned previously, this study focuses on exploring the influence of culture on ACs practice from the perspective of assessors and candidates. In this regards, from a theoretical perspective, there are two main areas related to this study. One is model of cultural fits (MCF); the other is organisational justice.

As for the MCF, the model was used in this study to explore how culture influences the design of AC from the perspective of assessors. This model asserts that socio-cultural variables (e.g. individualism/collectivism, power distance, etc.) may influence an organisation's internal work culture (Aycan et al., 2000), which, in turn, influences HRM practices and thus AC design and implementation. Although various studies have been conducted to test the model, the studies have been limited to only a few HRM practices (Keles & Aycan, 2011). In relation to this, Aycan (2005) proposed that further study should be conducted to examine this model in different applications of HRM practice. The current study therefore adapts and partially tests the model by focusing on the issue of cultural influences on AC practice in public sectors.

Another focus of this study is to understand candidates' reactions to ACs practice. Candidates' reaction in this context involve the process and procedure they faced during the ACs, and also the outcome from the ACs. To explore these issues, this study uses organisational justice theory. This model consists of two sub elements, i.e. procedural and distributive justice (Steiner & Gilliland, 2001). The former refers to the perceived fairness of the process by which outcomes are reached, or decisions are made (McCarthy et al., 2017) (Lind, Tyler, & Huo, 1997). The elements of the procedural justice component are structural aspect, information sharing and interpersonal treatment. While the latter (distributive justice) refers to related to the outcomes of the selection process

for each of the candidates, as to whether or not they succeed in the selection process (Gilliland, 1993). Related to organisational justice theory, Steiner and Gilliland (2001) explained that most of the empirical studies for this model were on the selection process. It is however, literature search shows that research on this aspect still limited and in the context of AC in Malaysia, related empirical study still not exists. In the current research, this study also proposed an extension of the theoretical model of organisational justice by evaluating how this model influence the participants in the contexts of their attitude, affect and whether they would recommend others to attend the ACs.

Figure 1.2 below shows the conceptual framework of this research which combine both studies and related theories.

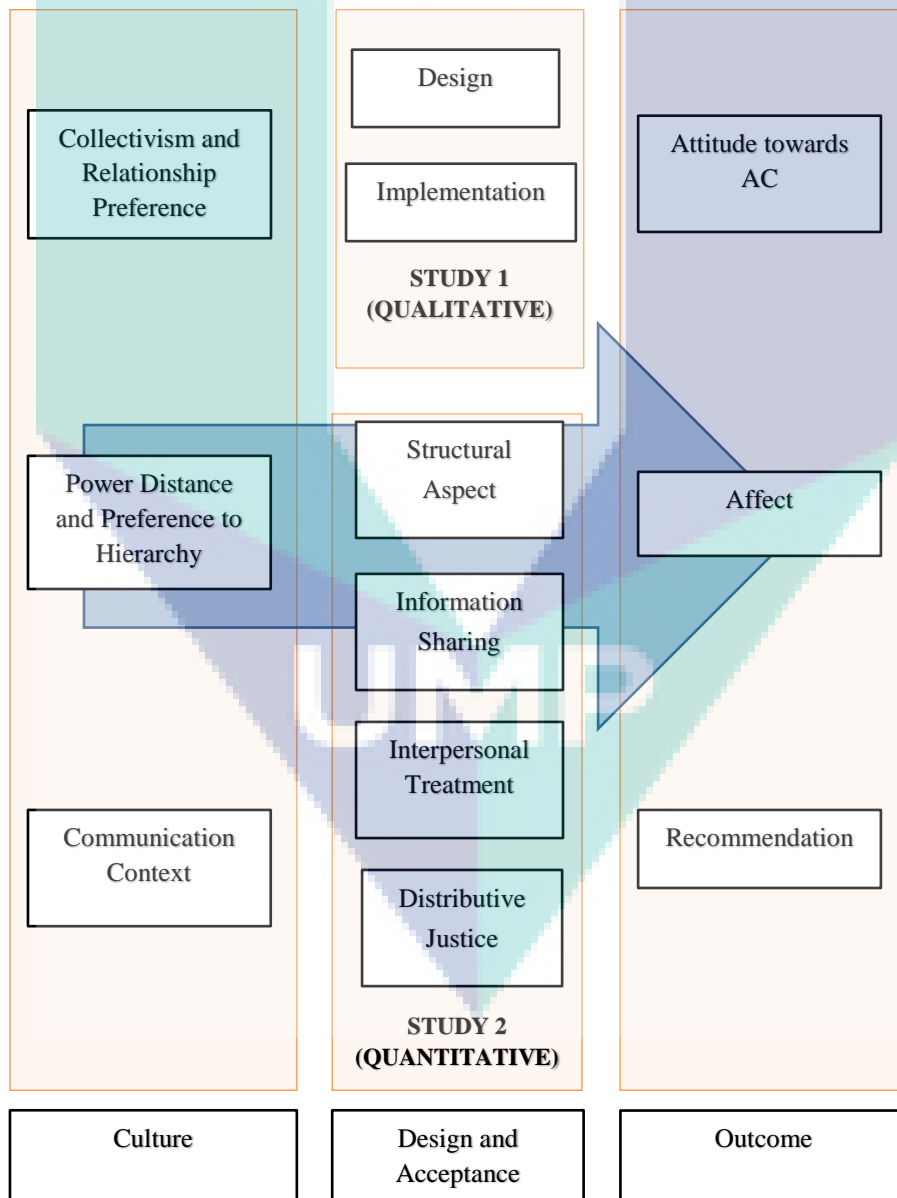


Figure 1-1: Conceptual Frameworks

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter commences with a general history and background and the current literatures regarding AC practices. It then briefly explains definition and concept of culture the Malaysian context and outlines previous studies on Malaysian culture. Given that this study focuses on AC practices in the Malaysian public sector. This chapter also explains how culture might influence the design and implementation of AC practices.

2.2 Definition and Concept of Culture

Numerous studies have been conducted in an attempt to understand what culture is and how it differs from one region to another. Review on literatures shows that culture has been defined using different approaches and conceptualised in various research areas, but without agreement on a single concept or meaning (Lustig & Koester, 2003). It is however shows that the concept of culture conceptions are normally express in statements of specific people's beliefs, values and thinking; which reflect into their behaviour, as well as their ways in acting and living (Hofstede, 1991, 2001; Schein, 2004). Studies in this area were also conducted as an attempt to understand 'why' and 'how' people in the society behave the way they do (Hofstede & Hofstede, 2004; Schein, 2004)

Although scholars offer various definitions to describe culture, they share a common attributes of culture. Koester and Lustig (2015), and Lustig and Koester (2003) suggest these as follow:

- i. It is learned and acquired through learning and experience. Culture is not inherited or biologically based.
- ii. It is shared among members of a society, organisation or group and not specific to single individuals.
- iii. It is transgenerational which means it is passed down from one generation to the next.
- iv. It is symbolic by using symbol to represent another.
- v. It is patterned, structured and integrated. Any change in one part will cause changes in another.
- vi. It is adaptive based on the human ability to change or adapt.

2.3 General Background of Malaysia and its Culture

Malaysia is a developing country located in Southeast Asia. The total area of Malaysia is 30,803 sq. kilometres, made up of West Malaysia (Peninsular Malaysia) and East Malaysia (*Yearbook of statistics Malaysia 2010*, 2011). There are three Federal Territories and eleven states in Peninsular Malaysia. These are the Federal Territory of Kuala Lumpur, the Federal Territories of Putrajaya, the Federal Territories of Labuan, and the states of Johor, Melaka, Negeri Sembilan, Selangor, Perak, Kedah, Penang, Perlis, Kelantan, Terengganu, and Pahang. Peninsular Malaysia shares a northern border with Thailand and Singapore is located to its south. East Malaysia consists of the Federal Territories of Labuan and two states, Sarawak and Sabah. East Malaysia shares a border with Brunei and the territory of Kalimantan, Indonesia. Individual state governments manage the administration of these thirteen states, while the Federal Territories are directly administered by the Federal Government.

Malaysia was originally occupied mainly by Malays and other indigenous ethnic groups. During the British colonial period, however, workers were brought in from China and India to assist in the utilisation of local resources by the colonists (Selvarajah & Meyer, 2008). In 1957, when Malaysia attained independence from the British, the Chinese and Indian communities were accepted by the Malays and assimilated into the Malaysian society. As a result, Malaysia nowadays has become a multi-ethnic country, being multilingual and multi-religious, and having many different ethnicities living together while maintaining their separate identities (Abdullah & Pedersen, 2003). The

estimated total Malaysian citizens in 2010 was 28.3 millions (*Yearbook of statistics Malaysia 2010*, 2011) with the majority being *Bumiputera* – Malay and indigenous ethnicities (66%), followed by Chinese (25%), Indian (7%), and others (1%).

As a multi-racial country, Malaysia has a multi-cultural characterised by diverse ethnicities and similarities in work attitudes (Abu Bakar & Mustaffa, 2011). Additionally, organisations in Malaysia also have a mixture of Western and Asian cultures, which have been influenced by British colonial management systems, Chinese and Indian cultures and a number of different religions (Kennedy, 2002). Despite the diversity in Malaysia, studies have shown that the work-related values of the different ethnicities in Malaysia do not differ significantly in many aspects, except in terms of religious considerations (Abdullah & Lim, 2001; Fontaine & Richardson, 2005; Kennedy, 2002). In this regards, (Lim, 2001) explain that all ethnics in Malaysia are generally share the same values as Malaysians live in the same social, political and economic milieu.

The members of each ethnic group in Malaysia are driven by their affiliation with groups, families and individuals (Abu Bakar & Mustaffa, 2011). This means that these ethnic groups respond better to requests to increase productivity if they see the benefits received not only by the organisation, but also by their families, communities and the country (Abu Bakar & Mustaffa, 2011).

Details regarding Malaysian culture is discussed in the following section, structured in terms of issues related to power distance and hierarchies, collectivism and relationship preferences, and communication context. These three dimensions are selected because they have been shown to be significant by international and local researchers (Abdullah & Low, 2001; G. J. Hofstede & Hofstede, 2004; House, 2004; House et al., 1999).

2.3.1 Power Distance and Preference of Hierarchy

Studies by Western scholars like Hofstede (Hofstede, 1980, 2001) and the GLOBE research by House et al. (House et al., 1999; House, Hanges, Javidan, Dorfman, & Gupta, 2004), found that Malaysia is a society that scores highly on power distance. Table 2.1 shows Power Distance Index from Hofstede's study which indicate Malaysia scored the highest index for this cultural dimension. This hierarchical relation in the context of the power distance dimension is based on Power Reduction Theory (Mulder,

Veen, Hijzen, & Jansen, 1973; Mulder, Veen, Rodenburg, Frenken, & Tielens, 1973). The theory assumes that employees in countries that adopt a high power distance culture tend to create a formal relationship within their organisations, with high reliance on supervision to ensure effective implementation of the given tasks. In this regard, members of such a society or organisation tend to expect, and agree, that power should not be equally shared (Hofstede, 1980; House et al., 1999, 2004). Organisations normally practice a hierarchical organisational structure with many supervisory personnel, wherein subordinates are expected to be informed as to their tasks (Hofstede & Hofstede, 2004). There is also a tendency to authoritative leadership styles in high power distance societies and organisations (Rosner & Kleiner, 1998).

Table 2-1: Power Distance Index

Country	Power Distance Index	Country	Power Distance Index
Malaysia	104	Pakistan	55
Egypt	80	Japan	54
China	80	Italy	50
Kuwait	80	South Africa	49
Nigeria	77	Argentina	49
Hong Kong	68	USA	40
Thailand	64	Germany	35
Tanzania	64	UK	35
Peru	64	Switzerland	34
Korea	60	Sweden	31
Greece	60	Denmark	18
Iran/Taiwan	58	Israel	13

Studies by Malaysian researchers support the finding that Malaysia is a high power distance society and tends to place emphasis on respect to elders, authority and hierarchical differences (Abdullah, 1992; Abdullah & Lim, 2001; Abdullah & Pedersen, 2003; Lim, 2001). One everyday example is acknowledgement of status in the stress placed on addressing individuals correctly (Abdullah & Pedersen, 2003). In Malaysian society, stating someone's title before his/her name is vital. Abdullah (1996) commented that the practice of acknowledging someone's title is a reflection of how Malaysians value politeness and formality. For example, students will address their lecturers as Professor Ali or Dr. Abu, and subordinates will address their superiors as *Tuan* Ahmed (Mr. Ahmed). Talking to superiors, someone senior, an older person without mentioning their title, or speaking loudly, is considered rude (Abdul Rashid & Ho, 2003).

As respecting elders, authority and hierarchical differences is important to Malaysians, it may create a gap between superior and subordinate and, therefore, may also have an influence on the decision-making process in Malaysian society. According to Lim (2001), Malaysians, and especially Malays, are traditionally loyal to their leaders. The knowledge, experience and wisdom of elders and seniors are acknowledged. If someone questions or challenges their leaders, this can be considered to be an inappropriate attitude. As a result, decision-making tends to be centralised and subordinates are usually expected to accept the centralised power and continue to depend on their superiors for direction (Lim, 2001).

As power is not equally shared among Malaysians, scholars have also found that Malaysian workers are non-assertive, and find it difficult to say *no* to the request of a superior (Abdullah & Pedersen, 2003). Subordinates will normally accept tasks given to them, will not argue with their superiors, and will be quite reluctant to counter check with their superiors if they face any problems. They are also quite often reluctant to ask for help. Abdullah and Pedersen (2003) further explained that this is due to authoritarian management styles, which are still predominant in Malaysia. In this regard, Razali (1999) in his study of managers' perceptions towards involvement in decision making in public sectors, found that there were some employees who feel frustrated because of their low participation in decision making. Abdullah and Gallagher (1995) also commented that low involvement in decision making may cause creative ideas to be halted, and that new ideas may not go far in this hierarchical setting, because they may be viewed as being against the mainstream.

The drawback of being non-assertive and showing extreme respect to elders and authority, as well as the hierarchical organisational structure is when this is carried too far and becomes unquestioning loyalty. This can occur where subordinates tend to be good followers and may be reluctant to take any initiatives for improvement, because of respect for seniority and their elders (Abdullah & Gallagher, 1995). Abdullah and Gallagher (1995) further commented that a shortcoming of this value structure is that subordinates may also not be ready to disagree with, or challenge, their superiors.

Various studies, as discussed above, show that Malaysia scored highest in the power distance dimension of those countries examined. In contradiction to this finding, however, Kennedy and Mansor (2000) and Kennedy (2002), using the findings from the

GLOBE study (House et al., 1999), found that Malaysia is considered high in terms of power distance, but does not take the highest ranking, as found by Hofstede (1980) and, Abdullah and Lim (2001). Furthermore, Kennedy (2002) argued that, although Malaysians acknowledge differences in power, this is balanced by a strong human orientation in superior-subordinate relationships through the showing of compassion (paternalism) within an overall autocratic management style (Kennedy, 2002).

In this context, Lim (2001) commented that although Malaysians, and especially Malays, were traditionally loyal to their leaders, there has been a drop in the power distance in Malaysian society in recent years, with subordinates being encouraged to voice their opinions. In addition, as more Malaysian students further their study in Western countries, this may be reflected in the mind-set of the younger generation, as they are more widely exposed to less hierarchically-oriented attitudes. Furthermore, a drop in the power distance in Malaysian society may also be because of the tension between the traditional Malay hierarchical social structure and Islamic values, which place emphasis on equality (Mansor & Ali, 1998). The universalistic picture is therefore qualified by dynamic and generational cultural dimensions.

Contradictory findings regarding the degree of power distance in Malaysia through the use by some of Hofstede's dimension (Abdullah & Low, 2001; Hofstede, 1980; Lim, 2001) and by others of the GLOBE study (Kennedy, 2002; Kennedy & Mansor, 2000) has led Abu Bakar and Mustaffa (2011) to further explore this issue. Specifically, their research focused on finding the meaning and characteristics of the concept of power distance among Malaysians in the workplace. In their study, they interviewed 60 employees from various levels in three public agencies. Their findings show that, in general, Malaysian employees accept inequality of power, but this comes with some limitations. Specifically, they found that there is a connection between power and respect. They explained that it is not a matter of whether subordinates automatically accept that there are power differences, but their impact is a function of the respect that they have toward their superiors in the workplace.

Abu Bakar and Mustaffa (2011) further explained that in Malaysian society, subordinates will respect the knowledge, skills and abilities of their superiors. These knowledge, skills and abilities can be indicated by their social status, education, expertise, and rank in an organisation. In this context, leaders must be able, and are expected, to

lead and provide inputs for group discussions, as well as deploy their expertise to solve problems relating to work. Leaders are also expected to make changes for the benefit of the group and protect and guide their subordinates. In addition, leaders, as the experts in the organisation, are also obligated to educate and develop subordinates to be the future leaders (Kennedy, 2002). By doing these leaders will gain respect from their subordinates and the subordinates will show their respect by observing and valuing their leaders' opinions and direction.

The findings of Abu Bakar and Mustaffa (2011) also showed that power is not simply vertical or individual but linked with strong group bonds. In this regard, they found that the power that a leader possesses is believed to derive in part from their ability to bind together and unite group members. They found that subordinates will respect their leaders if they have credibility in communicating and distributing the tasks effectively within the workgroup. In turn, the power and the respect they gain from subordinates are expected to be useful in coordinating and integrating work groups. This is in line with various studies that show Malaysians prefer to work in a group (Abdul Rashid & Ho, 2003; A. Abdullah & Pedersen, 2003). In short, Abu Bakar and Mustaffa (2011) concluded that Malaysian employees accept power differences, not because of the power that comes with the position that the superior holds, but as a signal of respect toward their leaders which is informed by the effective leadership of individuals and teams.

2.3.2 Collectivism and Relationship Preferences

Another important feature of Malaysian society is that is more group- than individual-oriented. This is in line with the findings of various studies that indicate that Malaysia is a collectivist society (Blunt, 1988; Hofstede, 1980; House et al., 1999). This is also supported by local Malaysian research, for example Abdullah (1992) who conducted a series of workshops and dialogues with more than 200 Malaysian and foreign managers working in Malaysian organisations. Her findings show that Malaysians work much better in a group, as they have a strong sense of belonging. The spirit of teamwork is important, which can be seen by the readiness to put group interests ahead of individual concerns. Abdullah (1992) explains that satisfaction at work comes from having opportunities to receive appropriate respect from fellow colleagues and maintaining harmonious, predictable and enjoyable friendships with subordinates and peers.

Qualifying this is a study by Lim (2001) who argued that there was a mixture (i.e. moderate level) of collectivism and individualism among Malaysians. His findings are in line with Triandis (1995), who explained that it is possible for collectivism to co-exist with individualism. Lim (2001) further explained that collectivism among Malaysians may not necessarily translate into organisational or workplace effectiveness. For instance, Malaysians, especially Malays, are not ready to forgo their religious obligations and family ties for the organisation (Abdul Rashid, Anantharaman, & Raveendran, 1997). Lim (2001) also pointed out that the concept of consultative decision-making is common in collectivist societies but is not widely used in Malaysian companies, where centralised or autocratic decision-making is still predominant.

Notwithstanding this, Abdullah and Pedersen (2003) argue that maintaining harmony is also important within the Malaysian workforce. Harmonious relationships are maintained to promote a supportive and friendly environment at the workplace (Abdullah & Gallagher, 1995). Malaysian society places great emphasis on having good relationships in performing any task (Abdullah & Pedersen, 2003). Malaysians value cooperation and prefer to work with those who have a *give and take* attitude and are tolerant. In contrast to some other cultures, where members believe that completing the task is more important than maintaining good relationships, Malaysian society values the social competencies of being friendly and accommodating, more than the cognitive competencies of critical thinking and problem solving.

2.3.3 Communication Context

A third important finding in regards to Malaysian culture is in the context of communication (Abdullah & Pedersen, 2003; Abdullah, 2010; Abu Bakar, Bahtiar, & Mustafa, 2007; Amir, 2009; Salleh, 2005). Hall (1976) and Rogers, Hart, and Miike (2002) as discussed in section 2.3.5 explains that high context-cultures like Asians, Arabs and Southern Europeans, prefer to use high-context communication. This cultural context assumes that most information resides in the person and therefore it is important to understand informal and body language in communication.

Empirical findings by Salleh (2005) shows that Malaysian put higher emphasis in high communication context. It is important as part of the process of maintaining harmony. There is also, as part of this, the reasons for using high context communication is a tendency to avoid confrontation, criticism and outspokenness, as it may damage self-

esteem or standing. It is generally perceived as insensitive and impolite to display aggressiveness, or to be a *take charge* kind of manager. Such a person can be a threat to social harmony and cause subordinates to be withdrawn and non-contributory. Of course, maintaining harmony may have drawbacks when it comes to giving feedback, or making comments. As preserving ‘face’ is important in eastern societies, giving negative feedback to subordinates or peers can be quite difficult, as indirectness is more the norm than directness in day-to-day behaviour. Negative feedback or news is often conveyed indirectly through a third party (Abdullah & Pedersen, 2003). Table 2.1 below shows summary of Malaysian Cultural Dimensions that is used in this research.

Table 2-2: Cultural dimensions, their descriptions

Cultural Category	Cultural Dimension	Description
Collectivism and Relationship Preferences	Relationship-Task	Measures the importance placed on relationships with employees versus task accomplishments.
	Harmony-Control	Gauges the individual’s relationship with nature.
	Shame-Guilt	Verifies if shame (which is outer-driven) or guilt (which is inner-driven) is the principle that guides behaviors.
	We-I	Measures the preference for interdependence with other people.
Power Distance and Preference of Hierarchy	Hierarchy-Equality	Gauges the emphasis placed on rank, status, and other ascribed attributes over equality issues.
	Religious-Secular	Verifies the degree in which religiosity, as opposed to secularity, is considered in managerial issues.
Communication Context	High Context-Low Context	Measures the extent to which cultures depend on the context (external environment, situation, non-verbal signs) to communicate.

(Adapted from Abdullah & Lim, 2001; Abdullah & Low, 2001; Abdullah, 2009)

2.4 History and Background of Assessment Centres

Several researchers, including Kraut (1973), and Thornton and Byham (1982), Thornton (2011), have discussed the history of ACs from the 1900s. They have found that the development of ACs began during the pre-World War II period, when the German military utilised a sophisticated multiple assessment procedure and multiple observers in order to evaluate complex behaviours for officer selection (Thornton & Byham, 1982). This approach was adapted by the British government, again primarily for the selection of military officers (Moses & Byham, 1977). In their adaptation, however, the British government made notable changes. For example, with the involvement of military

personnel, exercises were designed and conducted more effectively. This was possible because these military personnel had greater knowledge than the psychologists of the requirements of a successful military officer (Thornton & Byham, 1982). In 1942, The Office of Strategic Services (OSS) then used this approach for selection and placement in the United States (MacKinnon, 1977). The main aim of the OSS programme was to assess the personality traits and behavioural skills deemed necessary in candidates for positions such as intelligence agents, saboteurs and propaganda experts. This assessment was carried out through the application of various situational and performance exercises, including interviews, simulations and role plays (Bray, 1982; MacKinnon, 1977; OSS Assessment Staff, 1948; Thornton & Byham, 1982). According to Thornton and Byham (1982), the OSS assessment procedures marked an important shift away from paper and pencil tests as the single predictor of job performance in the United States.

In non-military settings, the British Civil Service Commission was the first organisation to apply the AC concept, in 1945 (Moses & Byham, 1977; Thornton & Byham, 1982). Later, in 1956, the AC approach was introduced into the industrial sector by the American Telephone and Telegraph Company (AT&T). AT&T used multiple assessment procedures in its Management Progress Study, which was a large-scale, longitudinal evaluation of developmental processes in consideration of both individual characteristics and organisational settings (Kraut, 1973; Moses & Byham, 1977; Thornton & Byham, 1982; Thornton & Rupp, 2006).

By the mid-1970s, the use of ACs had grown extensively in both private and public institutions across the world (Lievens & Thornton, 2005). As a result, its design and implementation varies widely. Practitioners and researchers have voiced a need to define more clearly what an AC is and is not (Howard, 1997). Therefore, in order to improve standardisation in implementing ACs, the International Congress on Assessment Center Methods, held in Quebec, Canada in 1975, formed an international task force to develop guidelines for AC practice, titled *Guidelines and Ethical Considerations for Assessment Center Operations*. The AC guidelines have been revised several times and at the 34th International Congress on Assessment Center Methods, the current guidelines were endorsed (International Task Force on Assessment Center Guidelines, 2009). The guidelines also reaffirmed several key features of ACs (e.g. multiple assessors, complex

realistic situations and the measurement of individual characteristics) that first emerged in military settings (Thornton & Byham, 1982).

These guidelines have been criticised by some researchers, who question whether they can or should be universally applied in all countries (Lievens & Thornton, 2005). The recent guidelines therefore include the suggestion that AC users should customise certain features of the specific culture in which the organisation operates (International Task Force on Assessment Center Guidelines, 2009; Rupp et al., 2015). These features include the selection of performance criteria and exercises, the identification of criteria for occupational success and the process used to give feedback. On the other hand, certain features related to the method of assessing candidates against job-related dimensions (such as behavioural observation techniques, assessor training for behavioural observation, classification and rating behaviour, and a systematic process of integrating evaluations across exercises, dimensions and assessors) were advised to remain the same across countries and organisations. The literature search shows, however, that there has been very limited research carried out in the field of ACs to support these suggestions.

Researchers have suggested that ACs can be used for various purposes in organisational settings. For example, Thornton and Rupp (2006) provided examples of the use of ACs in recruitment, selection, placement, training and development, performance appraisal, organisational development, human resource planning, promotion and transfer, and redundancies. Nonetheless, even though ACs can be used for a variety of purposes, an international survey conducted by Povah (Povah, 2011) from 443 respondents in 43 countries across five continents, showed that the most popular uses of AC approach were for external (non-graduate) recruitment (57%), diagnose development needs (56%), identify high potential (50%), external (graduate) recruitment (49%), internal promotion (45%) and succession planning (38%).

Before discussing the research concerning cultural effects on ACs, it is important to explain the AC process. In a traditional *dimension-based* AC, participants are measured and rated by trained assessors on job-related dimensions. Thornton and Byham (1982) define dimensions as, “specific behaviours that a person carries out to accomplish the task” (p. 117). These dimensions are selected through a job analysis and are deemed essential for successful performance in the target job (Bray, 1982; Heneman III & Judge, 2006; Thornton & Rupp, 2006). Gibbons and Rupp (2009) explained that these

dimensions usually consist of constructs that are difficult to measure via a paper-and-pencil test. Howard (1997) further explained that these dimensions may be composed of a mixture of “traits (e.g., energy), learned skills (planning), readily demonstrable behaviors (oral communication), basic abilities (mental ability), attitudes (social objectivity), motives (need for advancement), knowledge (industry knowledge), and other attributes or behaviours” (p.22).

The effectiveness a participant has with respect to these dimensions is evaluated in simulation exercises designed to replicate on-the-job situations (Gatewood & Feild, 2008; Lanik & Gibbons, 2011). Although simulation exercises may differ considerably across ACs, the most commonly used are case analyses, in-baskets, oral presentations, role-plays and group discussions (Bowler, Woehr, Soc, & Org, 2006; Dilchert & Ones, 2009; Lievens, Chasteen, Day, & Christiansen, 2006). After finishing all the exercises, the judgements are pooled in a discussion-based meeting among assessors, by a statistical integration process, or a combination of both approaches (International Task Force on Assessment Center Guidelines, 2009; Rupp et al., 2015; Thornton & Gibbons, 2009). Thornton and Byham (1982) suggested that the consensus discussion strategy in a meeting among assessors is the most important aspect of ACs. This is because consensus discussions may reduce any individual rater-bias and errors. In contrast, some researchers, including Feltham (1988) and Sackett and Wilson (1982), advocate the statistical method, which, they state, is less time-consuming and less costly. Recent research into AC practices shows that the current trend of data integration is to combine the assessor consensus with statistical data aggregation (Thornton, 2011).

As the use of ACs has grown globally, practitioners and researchers have become focused on measurement issues surrounding this approach. Even though the aim of ACs is to provide ratings on target job performance dimensions, numerous researchers have debated the extent to which ACs are meeting this objective. In the following subsection, the issue of construct validity in traditional *dimension-based* ACs is reviewed, followed by an overview of alternative methods, which are referred to as *task-based* ACs. It is important, in the scope of the current study, to have an understanding of how AC users in different cultural settings react to the current research findings on ACs, as these reactions may differ. In addition, an understanding of both designs is also important in order to improve previous cross-national research on AC practices, as these researches

only focus on dimension-based ACs (see Krause & Gebert, 2003; Krause & Thornton, 2009; Thornton & Krause, 2009).

2.5 Cultural Implications for the Assessment Process

As discussed earlier, although there is limited study has explored how culture may influence AC design and implementation, a few conceptual suggestions have been made on the design and implementation of ACs in different cultural settings. For example, it has been proposed that when AC programmes are designed for a specific culture, various contextual factors should also be considered. Certain aspects, including the cultural, legal and socio-political environments, should be taken into consideration at the design and/or the implementation stage (Ballantyne & Povah, 2004; Briscoe, 1997; International Task Force on Assessment Center Guidelines, 2009; Krause & Thornton, 2009; Lievens & Thornton, 2005; Rupp et al., 2015).

As the literature search has suggested that conceptual suggestions and empirical studies of how culture influences AC practice is very limited, the exploration of this issue will also focus on literature related to the performance management and performance appraisal domains. In this regard, scholars have explained that the fundamental aspect of ACs and performance appraisals are very similar and normally separated into different stages, which involve observing, recording, classifying and scaling the participant's behaviour (Murphy & Cleveland, 1995; Thornton & Rupp, 2006). Lanik and Gibbons (2011) explained that all of the stages are culturally biased and fail to consider the cultural influences that will affect the entire assessment process, as well as the decisions that will be made. These issues are reviewed in the following paragraphs.

2.5.1 Job Analysis

The development of an AC starts with a job analysis, which is required in order to identify those dimensions that are most important for the particular job under examination (Gatewood & Feild, 2008). Various job analysis techniques may be used, including gathering information from subject matter experts, collecting data via questionnaires and interviews with supervisors and job incumbents. This suggestion concurs with Thornton and Rupp (2006), who stated that the use of a single method is not sufficient in conducting a thorough job analysis. In this context, culture may have an influence over the selection of methodology for the job analysis. For example, it has been

found that the use of a traditional job analysis questionnaire to gather information from individual workers in high power distance cultures was problematic, as the jobs were designed to be performed by groups of workers, and not by individuals (Love, Bishop, Heinisch, & Montei, 1994; Sanchez & Levine, 1999). They further explain that, in high power distance cultures, it is not appropriate for subordinates to express individual opinions that may override superiors. As a result, employees seldom offer personal views to management. There is a tendency for employees to let management make decisions on issues related to them, including what they must do and how it should be done (Abdullah & Pedersen, 2003; Aycan, 2005).

2.5.2 Exercises

In terms of exercises, researchers have suggested that it is vital to identify which exercises are relevant for the criterion domain that one tries to predict in a specific culture. For instance, it has been suggested that leaderless group discussions, role-plays and individual presentations are less likely to be effective in high power distance cultures (Aycan, 2005; Lievens & Chapman, 2009). An empirical study by Lievens, Harris, van Keer, Bisqueret and Acad (2003) supports this argument. They examined whether group exercises and individual presentations were suitable as predictors of European executives' training performance in Japan. Their findings showed that, in contrast to individual presentation exercises, Japanese supervisors rated a group discussion exercise as a more powerful predictor of future performance. Lievens, De Corte, and Brysse (2003) further explained that Japanese supervisors prefer group-based exercises, as this reflects their collectivist culture, which favours team-based decision making. An empirical study by Earley (1994) found similar results. His findings showed that group-focused training was more effective at improving self-efficiency and performance among collectivist (Chinese) participants. For individualist (American) participants, however, individual-focused training was more effective.

Likewise, the empirical findings of Bernthal and Lanik (2008, as cited in Lanik & Gibbons, 2011) showed that, during the interaction role-plays activities, as compared to participants from European countries and North America, participants from Asian countries were more focused on relationship building and less on the task that needed to be accomplished. In this regard, scholars have explained that, in collectivist societies, building relationships is considered to be an important step in accomplishing the task

(Abdullah & Pedersen, 2003; Lanik & Gibbons, 2011). Therefore, those who have skill in building relationships might have an advantage during these activities. Lanik and Gibbons (2011) explained, however, that for Western assessors, this relationship-building behaviour might be viewed as irrelevant to the exercise and they might pay little attention to it.

It is common that most of the exercises in an AC are verbal in nature (e.g., group discussions). In this context, in order to evaluate candidates' competencies in these kinds of activities, they are required to speak up and express their ideas (Lanik & Gibbons, 2011). It has been found, however, that culture has a strong influence on the appropriateness of speaking and expressing an opinion aloud (Abdullah & Pedersen, 2003; Imada, Van Slyke, & Hendrick, 1985; Pedit, 2011). If the assessors fail to understand this situation, their judgement of a candidate's behaviour might be inaccurate (Lanik & Gibbons, 2011). For instance, Pedit (2011) explained that it is not easy for Indonesians to express their opinions directly. They usually take a longer time and the words they use are often filled with hidden meaning and metaphors in comparison to Western participants. In the same vein, it has also been noted that the Filipino culture encourages deferring to others in group settings, which might mean that they speak very little in a leaderless group discussion exercise (Imada et al., 1985).

2.5.3 Training

In the context of training design, it is important to consider cross-cultural variations in cognitive learning styles (Savvas, El-Kot, & Sadler-Smith, 2001). For instance, Allinson and Hayes (2000) found that managers in developing countries were more analytical, which means that they were typically seeking certainty. In contrast, they found that managers in more developed countries were more intuitive, meaning that they are more likely to argue against norms and assumptions than managers in less developed countries, thereby undermining the power distance between the trainer and the trainee. Aycan (2005) explained that analytical thinkers in high power distance and high uncertainty cultures are more receptive to one-way lecture-style training than they are to participative discussion. In order to conduct training in this type of culture, instructors must, therefore, be able to give definitive answers (Thornhill, 1993). In this context, it is preferable to have high-level managers in high power distance and high uncertainty

cultures as the instructors, rather than hiring external consultants, or trainers (Wright, Szeto, & Cheng, 2002).

2.5.4 Selection of Competencies/Dimensions

In the context of selecting and evaluating candidates against job-related dimensions, scholars have suggested that several aspects should be modified to suit the specific needs of their particular organisations and environment (Thornton & Rupp, 2006). For instance, a specific dimension (e.g., leadership) may be used, although different definitions, simulations and exercises may be required to adapt to the needs of the particular country, or organisation. Furthermore, different behavioural anchors for performance levels of good and poor leadership may be specified according to the specific culture of an organisation, or country. In an individualistic culture, evaluations are based on performance orientation, in which focus is given more on individual and work outcomes, such as employee productivity, output quality and job-specific knowledge (Aycan, 2005). As a result, performance criteria are more observable, as these are more objective and quantifiable (Harris & Moran, 2004). In contrast, although work outcomes are important in collectivist cultures, social and relationship criteria are given more emphasis in evaluating performance. Performance dimensions in collectivistic cultures are focused more on work processes (e.g., effort, motivation, etc.) and interpersonal competencies (e.g., respect, positive attitude towards superiors, etc.).

Similarly, empirical findings by Lanik (2010) showed that specific job performance behaviours, such as promoting interpersonal harmony, are perceived differently depending on one's culture. He found that interpersonal harmony was perceived as more desirable by Indian respondents (i.e., collectivists) than by respondents from the US and the Czech Republic. Therefore, this dimension might be important for inclusion in ACs to be used in collectivist societies. His findings are in line with previous findings that collectivist societies place more emphasis on maintaining harmony in order to successfully perform tasks (Abdullah & Pedersen, 2003). In line with the concept of maintaining harmony in collectivist societies, during the discussions in ACs activities, everyone is encouraged to give ideas and others will normally support each other's ideas. Different opinions will be given indirectly, and it is important to minimise disagreements by resolving them quickly (Lanik & Gibbons, 2011). This approach is in contrast to Western philosophy regarding effective group processes. Janis and Mann (1977) explain

that, in Western societies, group members are encouraged to actively critique the ideas of others to avoid *groupthink* that will discourage individual creativity (Janis & Mann, 1977).

2.5.5 Feedback

Cultural differences may also influence the communication methods used to give feedback. Fletcher and Perry (2001) described the process of giving feedback in collectivistic cultures as indirect, private and non-confrontational. They found that it is not common for employees in high power distance cultures to make an appeal on their performance feedback, as this may be considered to be challenging authority. As collectivist cultures emphasize harmony in the workplace, there is also a tendency to avoid giving negative feedback. For example, some organisations in the Philippines provide different reports for performance feedback, where the report given to the employee is phrased more positively than that presented to the HR department (Aycan, 2005; Vallance & Fellow, 1999). Aycan (2005) also explained that there is a reluctance to seek feedback in collectivistic and high power distance cultures. Furthermore, in collectivist cultures, positive feedback on individual performance is not well received, as it may cause envy among others who did not receive such positive feedback (Aycan, 2005). A comparative study among US, Japanese and Chinese employees supports this argument (Bailey, Chen, & Dou, 1997). These researchers found that Japanese and Chinese employees preferred not to seek feedback on individual performance, but preferred to seek feedback on group performance.

2.5.6 Dimension-based and Task-based Design

Previous studies have suggested that, under the trait paradigm in which traditional dimension-based ACs operate, human behaviours are relatively stable over time, but differ among individuals (Jackson, Stillman, & Englert, 2010; Lance, 2008; Sackett & Wilson, 1982). It has also been suggested that measuring stable personalities in dimension-based ACs may be influenced by the early application of ACs in the pre-World War II period (Jackson et al., 2010). AC-related procedures in that era focused on a holistic approach, which sought to achieve an assessment of *overall personality* (Ansbacher, 1941; Highhouse, 2002). In these early procedures, the focus was on assessing complex behavioural responses in terms of various subcomponent dimensions.

In relation of the above issues, cultural differences may, therefore, have an influence in the measuring of stable dimensions, such as personality, in dimension-based ACs. For example, scholars have explained that collectivistic and high power distance cultures tend to support greater differentiation of behaviour in different contexts (Matsumoto, Yoo, & Fontaine, 2009). Yancey and Watanabe (2009) support this argument, as they found that Americans from individualistic cultures perceive stable personality characteristics as an important aspect of leadership. In contrast, the Japanese, who have a strongly collectivist culture, perceive skills and behaviours as more important to leadership. They further suggest that Americans may focus on stable personality traits due to the low context culture in the US. Hall and Hall (1987) argued that, in low context cultures, it makes sense to assume that a person will have attributes that are independent of the situation. This assumption leads to simple models of the social world, such as that a person may be a good leader because he/she is honest, confident and approachable. In contrast, Japanese assessors may focus on behaviours and skills, because they come from a high context culture where a person's behavioural tendencies are seen as situation-specific (Hall & Hall, 1987). This leads to more complex models of the social world, involving behaviours that may be appropriate in one situation, but not in another. In other words, as inconsistencies in behaviour across contexts are acknowledged and treated as being acceptable, leaders are expected to adjust their behaviour according to these different situations. The findings of Matsumoto et al. (2009) and Yancey and Watanabe (2009) indicate that it is important for assessors in collectivist and high power distance cultures to accept and understand inconsistency in participants' behaviour when evaluating their performance.

Under the system model, as explained by Jackson et al. (2010), task-based ACs view constructs as comprising part of the set of inputs that interact during an AC to produce behavioural outputs. This means that any assessment of behavioural outcomes acknowledges the existence of psychological variables and other situational factors as inputs that will influence behavioural outputs. Task-based ACs, therefore, acknowledge differences in constructs (including inconsistency in performance) as being inputs that produce behavioural outputs. Furthermore, Jackson et al. (2010) also suggested that culture should be considered as an input of the assessment system, indicating that task-based ACs are more flexible and that their philosophy might adjust more easily to differing cultural settings.

Lanik and Gibbons (2011) supported the suggestion made by Jackson et al. (2010). They explained that Eastern assessors are more likely to take the performance of the candidate in every exercise into consideration as a whole, rather than distinguishing among multiple performance dimensions. In line with the system model, as compared to Western assessors, Eastern assessors are also more likely to take situational contexts into account (Lanik & Gibbons, 2011). As a result, it is expected that there will be less differentiation among dimension ratings and more variability across exercise ratings from Eastern assessors than from Western assessors. In this situation, if Eastern assessors give more weight to situational influences, then this is not necessarily a source of error needing to be reduced, or avoided. Lanik and Gibbons (2011) also explained that Eastern assessors might record behaviours within exercises into different dimensions. For example, in the situation of a candidate who speaks softly for much of an exercise, but occasionally raises her voice to make a point, Western assessors might classify these behaviours together under the dimension *oral communication*. Eastern assessors, on the other hand, might see the behaviours as serving different goals; such as promoting group harmony and persuading others; and, thus, may classify them into two different dimensions.

2.6 Theoretical Implications

This section focuses on the theoretical framework, the Model of Cultural Fit (MCF), to explain how culture influences human resource practices, and model of organisational justice to explain how candidates react to selection process.

2.6.1 Model of Cultural Fit

MCF model was proposed by Mendonca and Kanungo (1994) to study how physical and socio-political may influence internal and organisational work culture and, therefore, HRM practices. The important feature of a MCF is that it maintains a distinction between cultural dimensions at the societal and organisational levels. This model asserts that socio-cultural variables (e.g. individualism/collectivism, power distance, etc.) may influence an organisation's internal work culture, which, in turn, influences HRM practices and thus AC design and implementation.

The organisation's internal work culture in this model consists of managerial beliefs and assumptions regarding two essential elements of the organisation, which are the task and the employees (Schein, 2004). Managerial assumptions regarding the task

deal with the nature of the task and how it can be best accomplished. This task-driven assumption is influenced by an organisation's characteristics, which include resource availability, whether it is a private or public sector, the industry in which it operates and its market competitiveness. The employee-related assumption deals with the nature and behaviour of employees, which is influenced by the socio-cultural environment. As a result, these managerial assumptions about the nature of the task and the employee will influence managers in their design and implementation of human resource practices (Aycan, 2005; Aycan et al., 2000; Aycan, Kanungo, & Sinha, 1999; Keles & Aycan, 2011). The following Figure 2.1 shows the model of cultural fit.

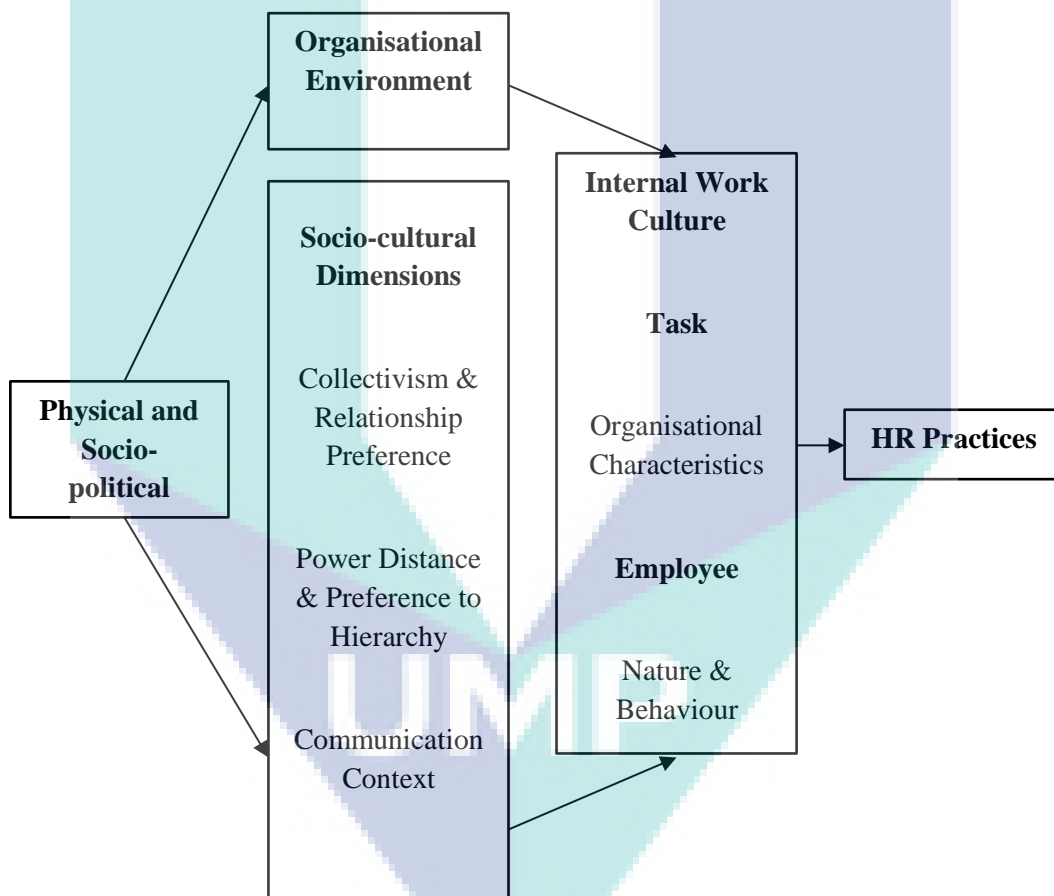


Figure 2-1: The model of cultural fit (adapted from Aycan, 2005; Aycan et al., 1999; Aycan et al., 2000; Keles & Aycan, 2011).

Various researchers have suggested the MCF model to be the most comprehensive model for studying how culture influences management practices (Claus & Briscoe, 2009; Fischer, Ferreira, Assmar, Redford, & Harb, 2005), and numerous empirical studies have been conducted to test the model (Aycan et al., 1999; Keles & Aycan, 2011; Mathur,

Aycan, & Kanungo, 1996). The most comprehensive study of the model was conducted by Aycan et al. (2000), who studied the effect of national cultural dimensions on the internal work culture and human resource practices (job design, supervisory practice and reward allocation) in organisations in ten different countries.

However, these studies have been limited to only a few HRM practices. As suggested by Aycan (2005), further study should be conducted to examine this model in different applications of human resource practice. The current study therefore adapts and partially tests the model by focusing on the issue of cultural influences on AC practice in public sectors.

2.6.2 Organisational Justice Theory

Given the fact that no research has yet been conducted to explore the acceptance of AC practices in Malaysia, this study also explore how participants react to the AC approach and how culture may influence their perceptions. Exploring this issue is important, as suggested by Steiner and Gilliland (2001), who explained that there are a limited number of studies on reactions to selection systems, and that further investigation is required. Scholars also explained that most organisations are now put more emphasis on reaction to selection especially when human resources departments are now considered as strategic unit (McCarthy et al., 2017). Empirical findings by McCarthy et al. (2017) found a significant and meaningful effects of applicant reactions towards intentions, attitudes, and behaviors.

Scholars suggest several reasons of studying applicant reactions (Hausknecht, Day, & Thomas, 2004). Firstly, applicants who find particular aspects of the selection system invasive might view the organisation as a less attractive option in the job search process. This is supported McCarthy et al. (2017) findings which showed that applicant reactions significantly have implications on the design and implementation of selection tests. Scholars also found a strong correlation between fairness and organisation attractiveness (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005; Hausknecht et al., 2004; Uggerslev, Fassina, & Kraichy, 2012). Findings by various scholar also shows that a positive company image during the selection process is importance as there are costs related with losing the best candidates (Chapman et al., 2005; Hausknecht et al., 2004; Uggerslev et al., 2012). Secondly, participants with negative reactions to a selection experience may dissuade other potential applicants from seeking employment

with the organization (Smither, Reilly, & Millsap, 1993). Next, successful candidates might be less likely to accept an offer from a company with selection process that are perceived unfavourably (Chapman et al., 2005; Garbers, Böge, Erdogan, & Bauer, 2016; Hausknecht et al., 2004; Macan, Avedon, Paese, & Smith, 1994). Fourth, candidates who perceive a particular selection process as offensive or inappropriate may be more likely to argue the result than applicants who perceive the process as fair and face valid (Smither et al., 1993). In addition, findings by McCarthy et al. (2017) and Oostrom, Bos-Broekema, Serlie, Born, and van der Molen (2012) support that applicant reactions are significantly linked with performance during selection tests. In addition to performance during test selection, there is also finding that show significant relations between actual job performance and test reactions and job performance (Garbers et al., 2016; McCarthy et al., 2013).

As explained previously, the application of AC approaches have been widely used around the world (Lanik & Gibbons, 2011; Lievens & Thornton, 2005). In this context, scholars have explained that understanding how local cultures influence reactions to selection systems is important to ensure that the operation of these systems is fair, smooth and effective (Steiner & Gilliland, 2001). In the same vein, Lytle, Brett, Barsness, Tinsley and Janssens (1995) commented that culture has a strong influence on how candidates perceive fairness in the selection procedure.

To understand candidates' reactions to different selection systems, the organisational justice theory is commonly used. Bies and Tripp (1995) defined organisational justice as the rules and norms used by an organisation to determine how outcomes are distributed. It also involves the procedures involved in making those decisions, and how the recipients of those outcomes are treated (Bies & Tripp, 1995). Organisational justice is also concerned with what people think is fair and how they react if they believe that the procedures to make the decision, or distribute the resources, are unfair (Steiner & Gilliland, 2001).

The organisational justice theory consists of two sub elements, i.e. procedural justice and distributive justice (Bies & Tripp, 1995; Steiner & Gilliland, 2001). Figure 2.2 illustrates the organisational justice theory for this study.

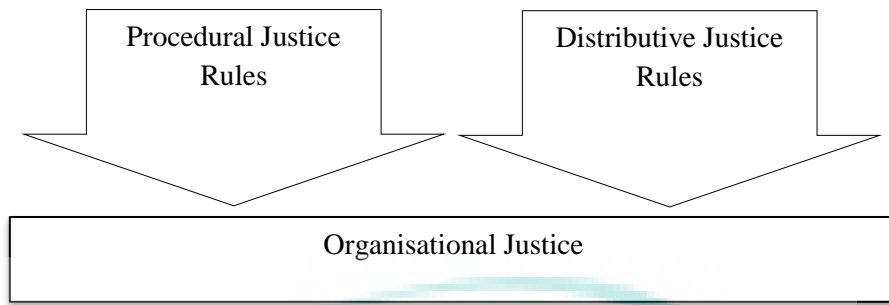


Figure 2-2: The model of organisational justice (adapted from Bies & Tripp, 1995; Steiner & Gilliland, 2001)

Procedural justice refers to the perceived fairness of the process by which outcomes are reached, or decisions are made (Lind et al., 1997). The procedural justice theoretical model, as proposed by Gilliland (1993), consists of ten rules that can be categorised under three categories. The first category is structural aspect or formal characteristics, which include job-relatedness, chance to perform, reconsideration opportunity and consistency. Information sharing is the second category and it consists of feedback, information known and openness. The final category is interpersonal treatment, which includes treatment at the test site, two-way communication and the propriety of questions. Figure 2.3 shows components of Procedural Justice Rules.

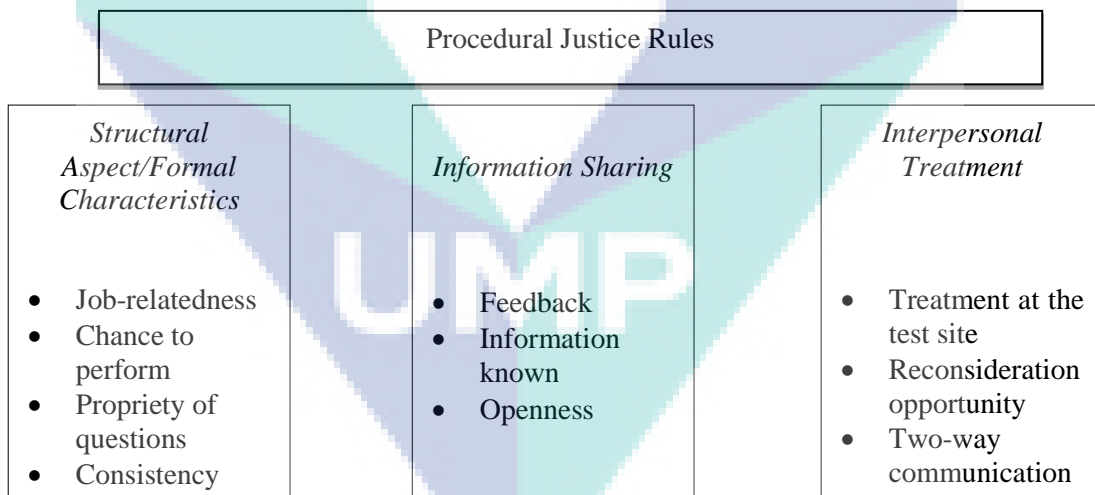


Figure 2-3: The components of Procedural Justice Rules (adapted from Bauer et al., 2001; Gilliland, 1993, 1994; Steiner & Gilliland, 2001)

For distributive justice, Steiner and Gilliland (2001) explain that it refers to the fairness of one's outcomes from a decision-making system. In the context of staff selection, distribution justice concerns the outcome from the selection process for each

candidate, whether they get the job or not. Steiner and Gilliland (2001) further explain that distributive justice is evaluated from equity perspective, equality perspective, or needs perspective. For staff selection, equity perspective refers to the situation that the most qualified and most appropriate candidates are the one who will be hired. In contrast, equality perspective refers to the distribution of outcomes equally to all individuals and merit or performance is not important. Lastly, distribution justice also takes into account of special need and this perspective suggests that the one who have the utmost need should receive more compared to those not in need. In this situation decision on who should be selected may need to consider elements like length of unemployment or number of dependent children. Scholars explain that equality and need perspective is rarely happen in western societies and therefore equity perspective is the most that will be used to identify the qualified applicant for the job (Steiner & Gilliland, 2001). Figure 2.4 shows components of Distributive Justice Rules.

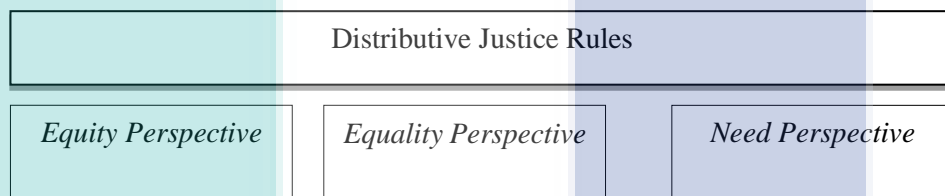


Figure 2-4: The components of Distributive Justice Rules (adapted from Bauer et al., 2001; Gilliland, 1993, 1994; Steiner & Gilliland, 2001)

2.7 Hypothesis Development

Steiner and Gilliland (2001) explained that little research has been conducted to explore how culture might influence the process, as compared to questioning the influence of culture on distributive justice. However, it is likely that cultural dimensions might also have an influence on the procedural justice rules. For instance, Aycan (2005) explained that recruitment and selection process as well as performance evaluation in high power distance and collectivist culture are more towards ‘*soft criteria*’ (e.g. social and interpersonal skills, etc.) and are conducted in unstructured and unsystematic way. In this context, it is likely that ACs approach might be less effective in high power distance and collectivist culture because it is important to design and implement ACs systematically and very structured. Therefore, it is likely that the high power distance

society like Malaysia which put emphasis on power distance and preference to hierarchy will not argue the structural aspect or the formal characteristics of the assessment process. In relation to this, in collectivist culture, arguing top management decision might be seen as unethical and may disturb group harmony (Aycan, 2005). In contrast, giving arguments and voicing opinions is common in individualistic and low power distance societies. In the selection process, people in these societies are more concerned with clear performance standards and how these relate to the job. They also show greater concern in regard to the appropriateness of criteria, including consistency and accuracy (McFarlin & Sweeney, 2001). Based on these arguments, the following hypotheses are posited:

H1: Collectivism and relationship preference is negatively related to structural aspect

H2: Power distance and preference to hierarchy is negatively related to structural aspect

Scholars also suggest that there is a tendency of reluctant to seek or share feedback and information in high power distance society. An appeal of process is not common in this culture because it is considered as challenging authority (Fletcher & Perry, 2001). Similarly, Steiner and Gilliland (2001) argue that power distance is an important influence on information sharing. In low power distance societies, it is expected that information sharing will be greater with individuals of lower status. In contrast, it might be difficult for individuals of lower status to gain more information in high power distance societies.

In addition to this, among collectivist, feedback and information sharing is normally indirect, non-confrontational, subtle, private and face to face discussion is rarely happened (Aycan, 2005; Fletcher & Perry, 2001). Therefore,

H3: Collectivism and relationship preference is negatively related to information sharing

H4: Power distance and preference to hierarchy is negatively related to information sharing

Communication context may also influence information sharing. Malaysians as a society that tends to adapt high context of communication (Abdullah & Pedersen, 2003; Abdullah, 2010; Abu Bakar et al., 2007; Amir, 2009; Salleh, 2005), may reluctant to ask for information. Salleh (2005) explained that as a society that more towards high context communication pattern, feedback and information sharing are also rarely happened due

to maintaining harmony, as well as to avoid confrontation, criticism and outspokenness, as it may damage self-esteem or standing. Most information is delivered indirectly to maintain group harmony. Thus,

H5: High context communication is negatively related to information sharing

In the context of interpersonal treatment, Malaysian as a society that put emphasis on working in group and maintaining harmony, good interpersonal relationship is important in helping the group to perform better. As mentioned by Steiner and Gilliland (2001), commented that opportunities to perform and job relatedness are factors related to individualism whereas consistency of treatment and equality is more important in collectivist societies. Therefore, it is expected that collectivist society, there will be a positive relation towards interpersonal treatment as stated in the following hypothesis.

H6: Collectivism and relationship preference is positively related to interpersonal treatment

Second component of organisational justice theory is distributive justice. Distributive justice refers to the perceived fairness of the allocation of rewards (Bies & Tripp, 1995). In the context of the selection process, this distributive justice is related to the outcomes of the selection process for each of the candidates, as to whether or not they succeed in the selection process (Gilliland, 1993). This distributive justice is commonly measured from the context of equity, equality, or needs (Steiner & Gilliland, 2001). In the context of ACs, equity refers to the meritocratic situation where the most highly performing candidates during the AC programme are the ones most likely to be hired. Meanwhile, equality is a perspective in which outcomes are equally distributed among all individuals, which means that the evaluation is less based on individual merit (Steiner & Gilliland, 2001). In general, Kabanoff (1991) explained that equity is preferred if emphasis is given on productivity whereas if the focus is more on group harmony, equality in distribution becomes more important.

In the context of personnel selection processes, Steiner and Gilliland (2001) explained that most methods used are based on the equity principle, with a candidate's competencies evaluated against a number of predetermined, job-related behaviours (Krause & Thornton, 2006; Lanik & Gibbons, 2011). Steiner and Gilliland (2001) commented, however, that the use of the equity method is more likely to occur in an

individualistic society. In contrast, as harmony is given more priority in a collectivistic society, such cultures are more likely to prefer equality approaches (James, 1993). However, as collectivist society put emphasis on maintain harmony, reward is normally given to the group and not to an individual person. In this context, there is an issue between ACs evaluation and distribution of rewards. Because the evaluation is normally based on individual basis but the distribution of reward is based on group. The following hypotheses are developed to test further these issues:

H7: Power distance and preference to hierarchy is negatively related to distributive justice

H8: Collectivism and relationship preference is negatively related to distributive justice

In addition to the above discussion, this study also aimed at exploring organisational justice (procedural and distributive justice) may influence the acceptance of ACs process in the context of attitude towards ACs, affect to individual and recommendation to others. It is believed that if the successful candidates accept the fairness of selection process, it might increase their engagement to the organisation. By exploring these issues, this research contributes to new theory and the body of knowledge of culture and ACs. As suggested by the guidelines, every organisation should provide sufficient information to participants prior to the programme, including what decision might be made with the assessment results. By giving enough information, it can improve acceptability of ACs and reduce stress of attending the programme (Thornton and Rupp 2006). Joiner (1984) explains that, most complaints about AC by assessees are filed due to a lack of knowledge relating to the programme's intentions at the beginning. Previous research as explained by Thornton and Byham (1982) shows that participants believe AC programme measures important managerial qualities, feedbacks received are useful, and that the programme is effective in promoting self-development. Furthermore, they also found that most participants are willing to promote this method to their friend. As this method will affect career to those who participated, it is important to evaluate their perception about AC (Dodd 1977). For instance, Anderson and Goltsi (2006) study affects of this method on participants before participating in the AC, immediately after the AC but before outcome decisions were known, and 6 months after the AC. They

found that participation in an AC affects self-esteem, well-being, positive and negative effects, and career exploration behaviour of both accepted and rejected candidates.

Based on the above discussion, it is expected that procedural justice components (structural aspect, information sharing and interpersonal treatment) will have positive relation with attitude towards ACs. In addition, distributive justice (allocation of rewards) will have positive relation with affect and recommendation to others.

H9: Structural aspect is positively related to attitude towards ACs

H10: Information sharing is positively related to attitude towards ACs

H11: Interpersonal treatment is positively related to attitude towards ACs

H12: Distributive justice is positively related to affect

H13: Distributive justice is positively related to recommendation

As discussed previously, although scholars have explained how culture might influence organisational justice and acceptance of ACs, these theoretical suggestions have had little empirical investigation. This study is concerned to explore how Malaysia, as a high power distance and collectivist society, as well as adopting high context communication, reflects these issues. The following diagram in Figure 2.4 shows the hypothesised model of this study.

The logo of Universiti Malaysia Perlis (UIMP) is a large, stylized letter 'V' shape. The left side of the 'V' is light blue, the right side is light green, and the bottom point is a darker blue. The letters 'UIMP' are written in white, bold, sans-serif font across the center of the 'V'.

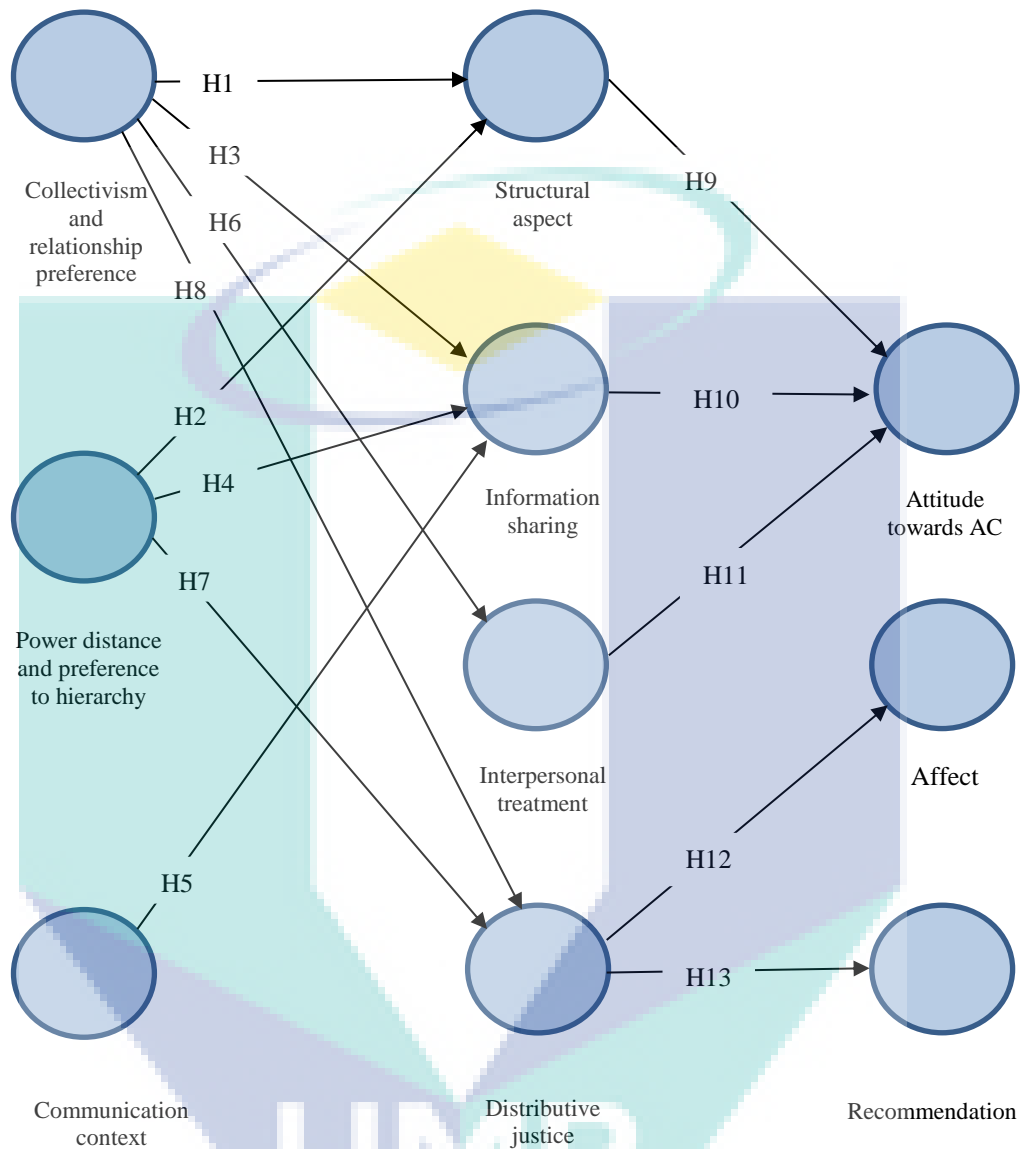


Figure 2-5: Hypothesised Model

2.8 Summary

This chapter reviews the literature on culture in general, background of Malaysia, organisational context and Malaysian Culture. This chapter also reviewed literature on ACs practices and theories that related to this research. The following chapter, Chapter Three discusses the research methodology adopted in this study.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This section explains the methodology adopted to gather data on issues associated with assessment centre (AC) implementation in the Malaysian public sector. The information presented regards the research philosophy employed, the research approach used, the mixed method approach and the mixed method research design. This chapter also introduces details about the participants of this research, as well as the data collection and data analysis processes. This section also reviews the key ethical considerations of the study.

3.2 Overview of Research Methodology

In relation to research scope as in section 1.5, this research is an exploratory and focuses on the self-perceptions of respondents' experiences and how they are seen to relate to cultural influences. This study is therefore informed by interpretivism as the research philosophy in guiding the data collection and analysis. Interpretivism research philosophy was adopted for this research as the interpretive paradigm emphasises greater reliance on the people being studied to give their own explanation of the situation under investigation (Veal, 2005).

In line with the interpretive paradigm, an inductive analytical approach was employed for this study, specifically for the first study (qualitative). Scholars explain that research using the inductive approach is more likely to produce sound results through the use of qualitative data but it also permits the use of a variety of data collection methods

to establish different views of the phenomena (Saunders, Lewis, & Thornhill, 2009). In short, a qualitative research design can be enhanced by using quantitative data.

Following the qualitative study, a deductive analytical approach was employed for the second study (quantitative). Scholars explained that deductive approach is concerned with developing and testing the hypotheses based on existing theories (Creswell & Clark, 2007). This mixed-methods approach can provide a more complete picture by noting certain trends and general associations, as well providing further in-depth knowledge of participants' perspectives (Creswell & Clark, 2007).

In relation to mixed-method approach, this study employed an Exploratory Design. According to Creswell (2008) this dual-phase research design is one of the best approach to explore a phenomenon as the design starts with the qualitative approach and latter proceeds with a quantitative study. Scholars also explain that an exploration is needed because guiding theories or framework are not fully established, or due to instruments, variables or measures are unknown and not available.

Two phases of interviews were conducted in the qualitative study. The first round involved 35 respondents in various departments, ministries and states. The respondents were those who had experience as assessors, as well as those who had experience as participants, in assessment centres. The focus of the interview was on exploring the broad practice of assessment centres in the Malaysian public sector. The second interviews were conducted to further explore important findings gathered from the first round of interviews and obtained more in-depth information. The second interviews were conducted on six officers-in-charge of human resource departments in four government agencies (two at the federal level and two at state level) that used the AC approach to support their human resource decisions with regards to staff selection and promotion. In addition, the qualitative study also involved a documentary review and analysis of two modules used in federal and state ACs.

Meanwhile, for the quantitative examination, a survey was conducted among those who had experience as participants. The focus of the survey was to explore the acceptance of ACs practice and how culture might influence their acceptance. Structural Equation Modelling (SEM) with SmartPLS software using Partial Least Squares (PLS)

estimation were used to analyse the model with 381 useful feedbacks from the questionnaire.

3.3 Research Philosophy

A research philosophy refers to a belief about the way in which data should be gathered, analysed and used (Saunders et al., 2009). In this regard, the research philosophy must be appropriate to the problem under investigation and what the researcher is attempting to determine from the study (Creswell, 2008; Newman & Benz, 1998). In line with this suggestion, as mentioned in the introduction section, it is hoped that, through this study, an initial framework can be established to explain the relation between culture and AC practices in Malaysia. In the exploration of this issue, assessors and participants in AC programmes are defined as being those individuals who have direct experience of how culture may influence the design and implementation of the assessment programme. In exploring how participants and assessors experienced cultural influences on the design and implementation of the assessment programme, interpretivism point of view was adopted as the research philosophy of this study in guiding the data collection and analysis.

The interpretive paradigm emphasises the view that “...the social world is socially constructed and subjective, and that the ‘reality’ which should be studied is the perceptions of the actors involved in a given social milieu, rather than a model of reality imposed by the researcher” (Veal, 2005, p, 24). This philosophy places greater reliance on the people being studied to give their own explanation of the situation under investigation. Veal (2005) further explained that the interpretive researcher needs to *get inside* the minds of his/her subjects and see the world from their point of view. As the objective of this research is to understand how culture may influence AC practices from the view of assessors and participants, an interpretivist philosophy is appropriate to this study.

3.4 Research Approach

In relation to the interpretive paradigm, an inductive analytical approach was employed for this study. An inductive approach would assist the researcher in elaborating an initial framework to explain the relation between culture and AC practices. This is in line with Saunders et al. (2009), who explained that the inductive approach is suitable for

an interpretive paradigm where the research will collect data, and develop theories as a result of the data analysis. Meanwhile, deductive approach is based on existing theory and this approach can be explained by the means of hypotheses, which can be derived from the propositions of the theory. Therefore, the design of the research strategy for deductive approach is to test the hypothesis (Saunders et al., 2009).

Saunders et al. (2009) also explained that research using the inductive approach is more likely to work with qualitative data, and using a variety of data collection methods to establish different views of phenomena. As the literature search suggests that empirical research to guide this study is, at present, very limited, this qualitative research design can be enhanced by the use of quantitative data. According to Creswell and Clark (2007), this approach provides a more complete picture by noting trends and generalisations, as well as in-depth knowledge of participants' perspectives. Creswell and Clark (2007) further explained that, although the use of quantitative data to enhance a qualitative result is not common, quantitative data might enhance a description of the results, or the identification of salient themes.

3.5 Mixed Method

As discussed above, the adoption of a mixed method paradigm, which involves both qualitative and quantitative approaches is believed to be the methodology best suited to this study. This is in line with suggestions by scholars who explained that a mixed method which involves the use of more than one approach is most suitable in the situation where there is a need to first carry out a qualitative exploration in order to identify variables, or constructs, that will be used in the questionnaires (Creswell, 2008; Creswell & Clark, 2007; Maxwell, 2005; Morse, 1991; Morse & Richards, 2002). These scholars further explained that this approach is also useful when the evidence is insufficient to answer the research questions; that is, when using a stand-alone basis is not enough; and the researcher is uncertain about the findings gathered from either one of the methodologies alone. Therefore, it is suggested that the mixed method approach should be used to enhance the study findings. This is in line with Peterson (1988), who explained that research related to culture is difficult because culture by its definition is not standardised and differs from one society to another. Therefore, a rigorous approach is important. In addition, researchers have also suggested that the use of a variety of data collection and analysis methods is useful in crosschecking the findings generated through

the use of particular materials and methods (Eriksson & Kovalainen, 2008). This allows researchers to address more complicated research questions and gather a stronger array of evidence than through the application of any single method alone (Yin, 2009).

Although there are various definitions of the mixed method approach, in general, scholars agree that this approach involves both qualitative and quantitative methods. For instance, Teddlie and Tashakkori (2009) defined the mixed method as studies that combine both quantitative and qualitative approaches within different phases of the research process. Meanwhile, Creswell and Clark (2007) explained that the mixed method approach can be viewed as methods of inquiry, as well as a methodology. They explained that, the mixed method approach can also be considered as a methodology that involves philosophical assumptions which guide the direction of collecting and analysing the data and the mixture of both qualitative and quantitative approaches in different phases in the research. Creswell and Clark (2007) further explained that as a method, this approach focuses on "...collecting, analysing, and mixing both quantitative and qualitative data in a single study or series of studies" (Creswell & Clark, 2007, p.3). In addition, scholars have explained that, in comparison to using one approach, adopting the mixed method approach will provide a better understanding of the research problems (Creswell & Clark, 2007; Greene et al., 2008; Patton, 2002). Other researchers also support the use of the mixed method in evaluating assessment processes across countries. Claus and Briscoe (2009), in their review of conceptual papers and empirical research on performance management/performance appraisals from an international/global perspective, concluded that research on this topic is still in its infancy, with a disconnection between theoretically-based conceptual articles and empirical studies. They further suggested that, together with quantitative methods, qualitative methods should also be used to explore how cultural differences might influence performance management practices.

There are other advantages of using a mixed method, as explained by, among others, Creswell and Clark (2007), Creswell, Clark, Gutmann and Hanson (2008) and Greene et al. (2008). According to these researchers, this approach would give more flexibility in using different data collection methods to address the research problems and, therefore, the researchers will have more confidence in the results. They also explained that this approach can be considered as more realistic, because it utilises both

numbers and words, and also involves both inductive and deductive thinking. Given the fact that both approaches have their own biases, a combination of the two methodologies may reduce these biases and increase the validity of the results (Creswell, 2008, 2009, 2011; Creswell & Clark, 2007). For instance, findings from the qualitative approach might involve researcher biases, and the findings are not commonly able to be generalised due to the number of participants usually being small. Meanwhile, a quantitative approach may not be suitable to explore live data, such as text documents and conversations (Creswell, 2008; Creswell & Clark, 2007; Greene et al., 2008). Therefore, the use of a mixed method approach could balance the weaknesses of a single approach.

There are, however, some disadvantages of using the mixed method approach. Patton (2002) explained that this approach is more time consuming. This approach also requires more resources in terms of funds and collection and examination time regarding the qualitative and quantitative data. Creswell and Clark (2007) also stated that the mixed method is more complicated and the researcher must have a good background in both qualitative and quantitative approaches to conduct mixed method research. It is, however, believed that these shortcomings are overcome by the advantages that can be gained from use of the mixed method approach (Creswell & Clark, 2007).

3.6 Mixed Method Research Design

Creswell and Clark (2007) explained that, once the researchers have chosen the relevant methodology, they need to decide the most appropriate research design to answer the research problems. They defined research designs as “procedures for collecting, analyzing, interpreting, and reporting data in research studies” (Creswell & Clark, 2007, p. 58). They further explained that there are four designs available for the mixed method approach. These are Exploratory, Explanatory, Triangulation and Embedded designs. It is recommended that the researcher should use the one design that best fits their research (Creswell & Clark, 2007).

In this regard, this study uses exploratory design to explore the issues under investigation. As explained by previous researchers, the use of exploratory design is suitable when the theories and frameworks are not well established, and instruments and variables are not available (Creswell, 2008; Creswell & Clark, 2007). The literature review shows that there has been very limited research carried out in the field of ACs to

explain how culture might influence their practice. In addition, it is also found that, to date, no research related to AC practice in Malaysia has been done. Creswell (2008), and Creswell and Clark (2007) further explained that exploratory design is also useful if the study is targeted to generalise the findings to different groups, which involves detailed exploration of the phenomenon under investigation. Based on these suggestions, it is, therefore, believed that the exploratory design is the most suitable for this study, because it is designed to explore how culture influences AC practice from the perspective of assessors, participants and also officers-in-charge in the Malaysian public sector. In exploring this phenomenon, Creswell (2008) and Creswell and Clark (2007) explained that exploratory design involves a dual-phase data collection. The first phase is the qualitative study, and the second phase is a quantitative approach. Figure 3.1 below shows exploratory design adopted in this study.

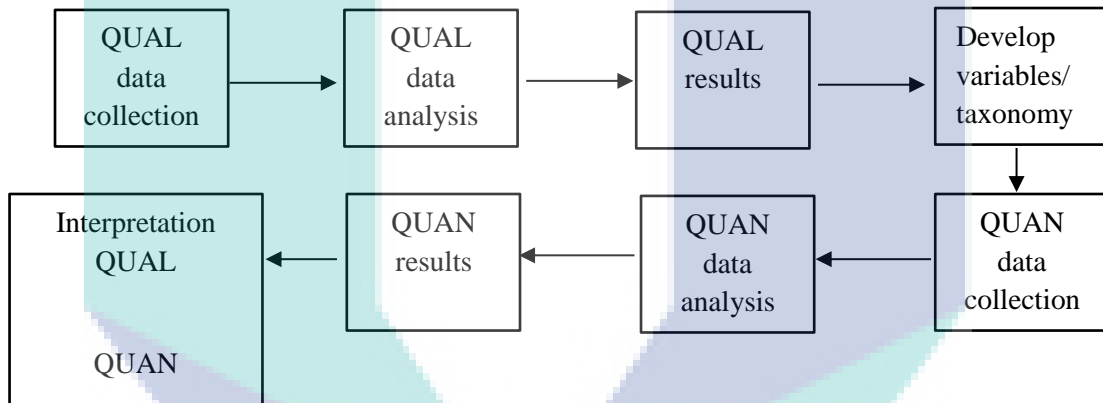


Figure 3-1: Exploratory Design: Variables/Taxonomy Development Model (adopted from Creswell & Clark, 2007)

Scholars have explained that the exploratory design has specific advantages and disadvantages (Creswell, 2008; Creswell & Clark, 2007). The advantages involve the argument that the dual phase approach is relevant to studies that involve, by their nature, multi-phasing. In addition, the design also makes it easier for the researcher in implementing the data collection and reporting the findings. The disadvantages of this design include it being time-consuming, and the difficulties and complicated processes in recruiting participants for both studies. The researcher may also encounter difficulties in choosing which findings from the qualitative data should be used to support the quantitative instruments (Creswell, 2008; Creswell & Clark, 2007).

3.7 Research Participants

This study employed a purposive sampling technique in identifying and selecting participants for this research. The purposive sampling was adopted despite its non-probabilistic character, as good judgment and appropriate strategies can allow a representative sample that is appropriate to the research to be obtained (Hoyle, Harris, & Judd, 2002). Purposive sampling is defined by Teddlie and Tashakkori (2009) as the selection of units in which the selection is based on specific purposes associated with answering the research questions. Patton (2002) and Teddlie and Yu (2007) explained that this technique required the respondents to have an in-depth understanding of the issues. Therefore, appropriate participants are identified and selected based on who can give details and rich information regarding the central issues in the research. In addition, scholars have explained that the selected sample using this purposive sampling is chosen because of its relevance to the topic of the investigation, whereby these participants have experience and knowledge regarding the phenomenon under investigation (Creswell & Clark, 2007; Morse & Richards, 2002).

This study focuses specifically on the practice of ACs, which involves the stages of designing, implementing and post-application assessment activities. Purposive sampling, therefore, was chosen due to it being the most suitable technique to explore the phenomenon. This technique also makes it possible to acquire an in-depth understanding of the issues under investigation from individuals who are directly involved in the assessment process. In this regard, as explained previously, for the first study (qualitative), assessors, participants and officers-in-charge, have been identified as those who have direct experience in the ACs. Assessors were selected as they are directly involved during the assessment processes and during the data integration stage. In addition, some of the assessors are also involved in the design stage as well as the decision making for the organisation through interpreting the results from the ACs. Participants in the ACs were also chosen as they were the individuals being assessed and the ones that received the outcomes from the ACs. Meanwhile, officers-in-charge are those directly involved in designing the ACs, monitoring the implementation, as well as in the decision-making process. For the second study (quantitative), this study will only focus on participants of ACs, this is because the number of assessors is too small for quantitative research. Figure 3.2 shows summary of mixed method approach for this study.

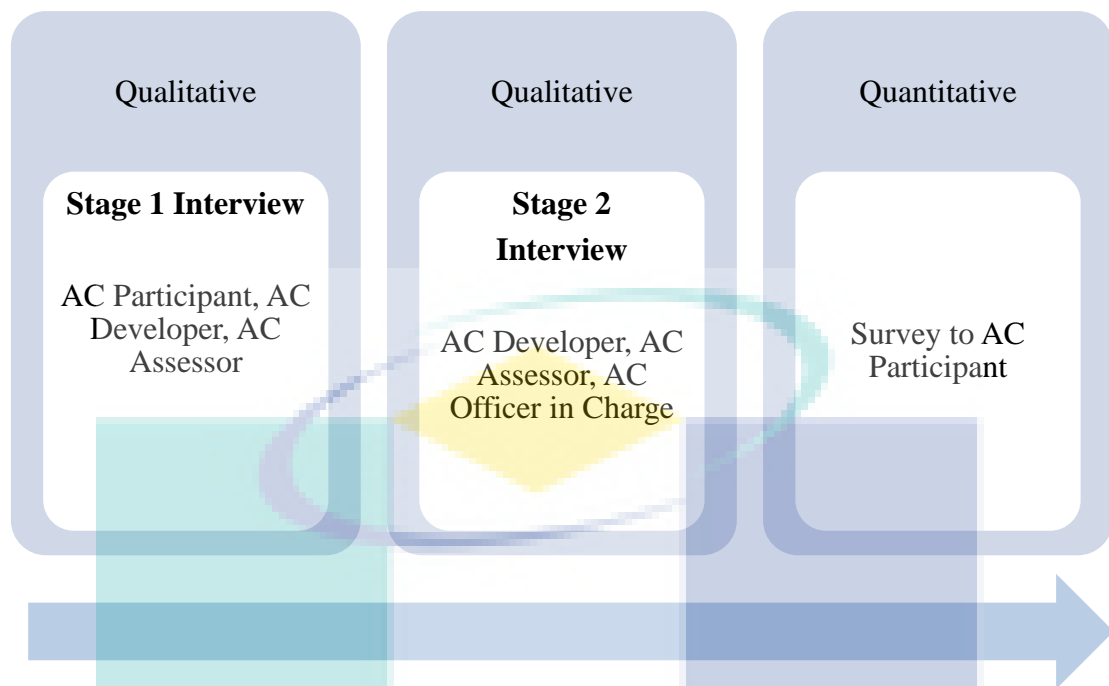


Figure 3-2: Mixed Method Process for this study

3.8 Qualitative Research

This qualitative part of the study uses semi-structured interviews. This approach involves constructing a series of pre-formulated questions, with a combination of structured and open-ended questions as a guideline during the interview (Saunders et al., 2009). A semi-structured interview also allows the researcher flexibility in context of the order of the interview questions. It also provides opportunities for the participants to express their opinion and speak more broadly on the topics under investigation (Denscombe, 2007). A semi-structured interview is also helpful in assisting the researcher in obtaining the same data from different respondents. This is because each respondent is asked similar questions, although the questions asked may not be in the same order (Newman & Benz, 1998). The researcher can, therefore, focus on major themes within the research, while still allowing new themes to emerge. In addition, all interviews were conducted on a one-to-one basis. This is because a one-to-one interview is easy to arrange and control. The feedback comes from one respondent and, therefore, the researcher only needs to focus on collecting a single person's opinions during the process of the interview (Denscombe, 2007).

3.8.1 Qualitative Data Collection Process

In collecting qualitative data, this study ensures that the anonymity, privacy and confidentiality of the participants are maintained. These issues were addressed for the respondents using the Information Sheet. The Information Sheet also explained the study, including the research purpose, the interview process, its voluntary nature and the risks involved. As a supplement to the Information Sheet, a Consent Form was used to ensure that the respondent was informed about the research and agreed to take part in the study voluntarily. The form also clearly informed the respondents that they could withdraw from the study at any time. If this happened, any information related to the respondent would be destroyed.

In each interview, the researcher began by introducing himself and the research. The interviews were conducted in Malay, with the times and venues chosen for the interview being based on convenience for the participants. Although most of the interviews were conducted in the participants' offices, some interviews were held in meeting rooms, some in agency lobbies and some in coffee houses. At the beginning of each interview, a Participant Information Sheet and Consent Form were handed to the participants. The respondents were also informed that participation was voluntary, with it being stressed that participants were able to withdraw from the research at any time. The researcher also asked permission from the respondents to audio-record the interview, however, seven participants declined the recording of their interviews. In this situation, the researcher manually recorded any important points.

Each interview began with one general question along the lines of the respondent explaining their general experiences of ACs. Based on their initial answers, the researcher then determined the most appropriate follow-up question. This process was repeated until all the issues outlined in the interview parameters were discussed. There were occasions, however, where due to time constraints on the respondents, not all of the issues could be covered.

The interviewed respondents for this study were identified through two different methods. The first was through being identified by the researcher, and the second was using the snowballing technique, whereby one respondent leads the interviewer to another respondent through recommendation, or introduction. In all of the cases, the

suitability of the interviewees for this study was determined mainly based on their ability to provide data and information relevant to the research questions of this study.

Finally, before concluding each interview, the researcher thanked the respondent for their involvement in the research and presented each of the respondent with a souvenir. This was in line with Malaysian culture, which regards gift-giving as an honourable practice to show appreciation for somebody's help, or assistance.

3.8.2 Pilot Study for Qualitative Research

Prior to the actual data collection, pilot interviews were conducted with two respondents. The first interview was with the Campus Director of the *Institut Tadbiran Awam Negara (INTAN)*, Southern Regional Campus, Malaysia. The Campus Director of INTAN was chosen for the pilot interview, because ACs for public agencies are usually conducted by INTAN. This is because INTAN, as a training centre for government officers, has facilities suited to conducting ACs, including accommodation, meeting rooms and training rooms, as well as indoor and outdoor sports facilities. INTAN also has seven campuses located in strategic locations, which is important for accommodating a large number of participants across Malaysia at the same time.

The second pilot interview was conducted with the Principal Assistant Director, Service Department, Public Service of Malaysia. This respondent is the officer-in-charge of the development and implementation of those ACs utilised in the selection and promotion of Administrative and Diplomatic Officers. In both pilot interviews, the respondents explained the history and current implementation of ACs in Malaysia. We also discussed the list of interview parameter questions, which the researcher had prepared, and he offered suggestions on the type of questions to be asked. He also offered the names of some experienced AC assessors whom the researcher should contact to assist in completing the research. He also confirmed that, to his knowledge, no research regarding ACs in Malaysia had been conducted to date. In addition, these pilot interviews were also important for the researcher to establish rapport and trust with the agencies for which these individuals worked. This was essential to the researcher gaining subsequent access to appropriate interview participants. In the context of Malaysian society, establishing rapport and trust with agencies is critical, where the concept of *who you know* is prevalent.

3.8.3 Participants' Background

Using a qualitative approach, two stages of the interview were conducted. For the first interview, a series of interviews were conducted with those who had experience as assessors, as well as with those who had experience as participants, in ACs. In total, 35 respondents in various departments, ministries and states were involved in the first interviews. The focus of the interview was on exploring the broad practice of ACs in the Malaysian public sector. Of the 35 respondents, 28 were Administrative and Diplomatic Officers, one was a Psychologist, three were Administrative Officers, and three were Islamic Religious Affairs Officers. Most of the respondents were Administrative and Diplomatic Officers, as ACs have been used for selection and promotion for this scheme since 1998. Of these Administrative and Diplomatic Officers, three were Senior Officers of the Malaysian Government (*Jawatan Utama Sektor Awam – JUSA*). The discussions with them focused more on broader aspects of AC practice, such as how government policies influence human resource and AC practices. Interviews were also conducted with agencies that had recently adapted the AC approach for their particular requirements. Universiti Putra Malaysia, The State Public Services Commission of Johor and the Department of Islamic Development of Malaysia are among agencies that have recently adapted the AC approach for selection of their staff. Interviews with respondents from these agencies focused on obtaining information regarding their choice of the AC approach and how they have adapted the approach to the needs of their organisation.

Following the first interviews, the second interviews were conducted to confirm the findings from the first interviews, as well as to obtain more in-depth information. The second interviews were conducted with six officers-in-charge of human resource departments in four government agencies that use the AC approach to support their human resource decisions regarding staff selection and promotion. All respondents for the second phase of the interviews were directly involved in designing the ACs and monitoring their implementation, and were involved in decisions made as a result of the assessments.

Summaries of the respondents' profiles for the first interview and the second interview are displayed in the Tables 3.1 and 3.2, respectively. Codes are given based on the sequence of the interviews.

Table 3-1: Respondents' profiles, interview 1

Respondents' profiles, interview 1

Code	Pseudonym Name	Function/Experience in AC	Agencies (Federal/state and Region)
R01	Is	Assessor, Facilitator, Participant (selection and promotion)	Federal Officer (Southern Region)
R02	Nekman	Assessor	Federal Officer (Southern Region)
R03	Suku	Assessor	Federal Officer (Southern Region)
R04	Fadhilah	Participant (selection)	Federal Officer (Southern Region)
R05	Luqman	Participant (selection)	Federal Officer (Southern Region)
R06	Ruzana	Participant (selection)	Federal Officer (Southern Region)
R07	Nurul	Participant (selection)	State Officer (Southern Region)
R08	Fitri	Participant (selection)	State Officer (Southern Region)
R09	Afif	Participant (selection)	State Officer (East Coast Region)
R10	Rohimi	Participant (selection)	State Officer (East Coast Region)
R11	Maznorlia	Participant (selection)	State Officer (East Coast Region)
R12	Arif	Participant (selection)	State Officer (East Coast Region)
R13	Nazuha	Participant (selection)	State Officer (East Coast Region)
R14	Wahyun	Participant (selection)	State Officer (East Coast Region)
R15	Ridzuan	Participant (selection)	State Officer (East Coast Region)
R16	Syafinaz	Participant (selection)	State Officer (East Coast Region)
R17	Merra	Participant (selection)	State Officer (East Coast Region)
R18	Rahayu	Assessor, Facilitator, Participant (selection and promotion)	Federal Officer (East Coast Region)
R19	Amin	Developer, Assessor	Federal Officer (Central)
R20	Halim	Developer, Assessor	Federal Officer (Central)
R21	Ruzana	Assessor, Facilitator, Participant (selection and promotion)	Federal Officer (Central)
R22	Tan	Participant (selection)	Federal Officer (Central)

Respondents' profiles, interview 1

Code	Pseudonym Name	Function/Experience in AC	Agencies (Federal/state and Region)
R23	Shan	Participant (selection)	Federal Officer (Central)
R24	Ridha	Facilitator, Participant (selection and promotion)	Federal Officer (Central)
R25	Idatul	Facilitator, Participant (selection and promotion)	Federal Officer (Central)
R26	Rashidi	Facilitator, Participant (selection and promotion)	Federal Officer (Central)
R27	Nordin	Developer, Assessor	Federal Officer (Central)
R28	Raja	Developer, Assessor	Federal Officer (Central)
R29	Norihan	Developer, Assessor	Federal Officer (Central)
R30	Norhaslinda	Participant (selection)	Statutory Body Officer (Central)
R31	Rozi	Participant (selection)	Statutory Body Officer (Central)
R32	Jalil	Developer, Assessor	Secretary State Public Services Commission
R33	Bob	Developer, Assessor	The Director General, Ministry of Y&S
R34	Azaman	Developer, Assessor	Psychologist Public Services Commission Malaysia
R35	Salim	Developer, Assessor	Deputy Secretary General, Ministry of Y&S

Table 3-2: Respondents' profiles, interview 2

Code	Pseudonym Name	Function/Experience in AC	Agencies (Federal/state and Region)
R2a	Wan	Developer, Assessor, Officer in Charge	Under Secretary of Human Resource (Federal, Central)
R2b	Ramli	Developer, Assessor, Officer in Charge	Under Secretary of Human Resource State Public Services Commission
R2c	Zahari	Developer, Assessor, Officer in Charge	Under Secretary of Human Resource (State,

Code	Pseudonym Name	Function/Experience in AC	Agencies (Federal/state and Region)
R2d	Zaki	Developer, Assessor, Officer in Charge	East Coast Chief Assistant Director (State, East Coast)
R2e	Agus	Developer, Assessor, Officer in Charge	Deputy Director (Federal, Central)
R2f	Nazli	Developer, Assessor, Officer in Charge	Chief Assistant Director (Federal, Central)

3.8.4 Qualitative data analysis process

Scholars have explained that the purpose of data analysis is answering the research questions, with this process involving organising, providing structure to, and eliciting meaning from the data (Polit & Beck, 2008; Trochim & Donnelly, 2007). Several scholars have suggested that there are no specific guidelines to analysing the qualitative data (Patton, 2002; Polit & Beck, 2008). In this context, Trochim and Donnelly (2007) explained that, in analysing the qualitative data, it is important for the researchers to be knowledgeable and skilful in doing the research and also must be rigorous, creative, and reflective. Patton (2002) added that, in analysing qualitative data, researchers may also face difficulties in making sense from large amounts of data. In the context of reporting the findings, Polit and Beck (2008) explained that it is important for the researchers to balance between "...the need to be brief with the need to maintain the richness and evidentiary value of their data" (p. 507). Meanwhile, Patton (2002) mentioned that it is researcher's responsibility to provide a complete and honest report regarding the processes and procedures used in analysing the qualitative data.

Polit and Beck (2008) further explained that the data analysis starts by developing categories, with meaningful themes later identified. Themes, according to Polit and Beck (2008) are recurring regularities that emerge from an analysis of qualitative data. Leininger (1985) explained that these themes can be identified by combining together fragments of ideas or experiences, which can be meaningless if viewed alone. In analysing the qualitative data for this study, after the interviews were transcribed, significant and important sentences and phrases were identified, which have useful meaning and may provide answers to the research questions. All these similar sentences and phrases were labelled with descriptions to indicate concepts. Later in the research

process all of the related concepts were placed together into groups, or categories. Patton (2002) explained that, in the first step of the qualitative data analysis, it is important to develop some manageable classifications, or categories.

The analysis process for the qualitative data in this study was conducted using NVivo9 software. This software is useful in helping the researcher to increase the effectiveness and efficiency in evaluating the data (Bazeley, 2007). In using NVivo9 software, general guidelines by Creswell (2006) were followed. In short, the steps used in the analysis are:

1. Data managing - Data which include audios and transcripts were stored in the NVivo 9.2 software;
2. Searching for themes – The transcripts were analysed and the relevant segments of text from all transcripts that relate to a single idea was put under a single free node;
3. Diagramming – These free nodes were later grouped into similar categories and the tree index system was developed. The parent for this tree node is known as a *root* (main theme) and all relevant categories that relate to the root are placed under it and referred to as a *child* (sub theme); and
4. Analysing and reporting was the final step.

3.9 Quantitative Research

As explained in the section 3.5, in exploring the implementation of ACs in Malaysia and how culture may influence the practice of ACs, a mixed method approach was employed. Following the use of a qualitative method (two series of semi-structured interviews and document review), a quantitative method (survey questionnaires) was employed for the second stage of the data collection.

3.9.1 Development of the Questionnaires

The questionnaires designed for participants was divided into two main sections, the first (Section A) focusing on organisational justice and post ACs, and the second (Section B) focusing on questions related to cultural values.

3.9.1.1 Study Instrument and Measurement

The focus of the questionnaire was to further explore how participants perceived the AC procedures. Scholars suggest that exploring participants' reactions to AC practices is important because their reactions may show an organisation's attractiveness to candidates, ethical and legal issues, and possible effects on selection procedure validity and utility (Smither et al., 1993). To the knowledge of the researcher, and from interview findings, there is very limited empirical research regarding how participants perceive and react to AC procedures, and how these perceptions and reactions influence their attitudes towards organisations using ACs.

The questionnaire in this study has been adopted from previous survey and empirical research by various scholars in measuring attitudes towards ACs and reactions towards selection procedures (Bauer et al., 2001; Bell & Arthur, 2008; Byham, 2005; Dodd, 1977; Gilliland, 1993; Hausknecht et al., 2004; Ryan & Ployhart, 2000; Smither et al., 1993; Stone, Stone-Romero, & Lukaszewski, 2007). Meanwhile, in measuring national culture, series of studies by Abdullah and his associates is adapted for this study (Abdullah, 2009; Abdullah & Lim, 2001; Abdullah & Low, 2001). Table 3.3 below shows items for section A.

Section B focuses on questions regarding to Malaysian culture. In order to explore perceptions regarding Malaysian culture in regards to this issue, questionnaires developed by local researchers, Abdullah and Pedersen (Abdullah & Pedersen, 2003), were adapted for the current study. Abdullah states that other questionnaires related to exploring cultural influences on management practices are not suitable for the Malaysian scenario. For instance, she explained that most questionnaires on culture developed by western scholars did not include religion and how it influences power distance in Malaysian culture (Abdullah, personal communication, January 15, 2011). Table 3.3 below shows items in the questionnaire for the national culture assessment.

Table 3-3: Construct and items for Section A

Section A consists of organisational justice variables (procedural justice, distributive justice), and after attending AC.

Procedural Justice		Items
Structural Aspect/ Formal Characteristics	Job-relatedness	<ul style="list-style-type: none"> ▪ It would be clear to anyone that the assessment centre is related to the job. ▪ A person who scored well on the assessment centre will be a good officer.
	Chance to perform	<ul style="list-style-type: none"> ▪ I could really show my skills and abilities through the assessment centre.
	Propriety of activities/exercises	<ul style="list-style-type: none"> ▪ The activities/exercises of the assessment seemed appropriate. ▪ The activities/exercises reflected the types of activities required on the actual job. ▪ The assessment process captures the most relevant aspects of the job being assessed.
	Consistency	<ul style="list-style-type: none"> ▪ The assessment centre was administered to all candidates in the same way.
Information Sharing	Feedback	<ul style="list-style-type: none"> ▪ I knew when I would receive feedback about my performance in the assessment centre. ▪ I do not feel comfortable to discussing my performance due to face saving considerations. ▪ Positive feedback may create jealousy in others. ▪ Negative feedback to candidates might create conflict and can affect harmony. ▪ Feedback is not important because it is candidates' own responsibility to explore their strengths and weakness. ▪ If feedback is given, it should be individually and not in a group. ▪ If feedback is given, it should be in writing and not verbally.
	Information known	<ul style="list-style-type: none"> ▪ I had ample information regarding the format of the assessment centre. ▪ I knew what to expect in the assessment centre. ▪ I was given adequate instructions for every activity.
	Openness	<ul style="list-style-type: none"> ▪ The assessment centre administrators were candid when answering questions during the assessment. ▪ The assessment centre administrators did not try to hide anything from me during the assessment process.
	Interpersonal Treatment	Treatment

	<ul style="list-style-type: none"> ▪ The assessment team behaved in a professional manner. ▪ The assessors, administrators, and support staff were friendly. ▪ The facilities allowed me to feel comfortable during the assessment centre activities.
Reconsideration opportunity	<ul style="list-style-type: none"> ▪ Candidates were able to have their assessment centre results reviewed if they wished. ▪ The opportunity for reviewing my assessment centre results was adequate.
Communication	<ul style="list-style-type: none"> ▪ I would have felt comfortable asking questions about the assessment centre if I had any. ▪ I was comfortable with the idea of expressing my concerns at the assessment centre site. ▪ Pre-assessment communications regarding the assessment process were clear.
Distributive Justice	Items
Distributive justice	<ul style="list-style-type: none"> ▪ The results accurately reflected how well I performed in the assessment centre. ▪ I deserved the results that I received in the assessment centre. ▪ The assessment centre fairly reflected my ability to do the job.
Outcome (After Performing AC)	Items
Affect	<ul style="list-style-type: none"> ▪ I greatly enjoyed the assessment centre. ▪ I would look forward to going through the assessment centre again in the future. ▪ My behaviour in the assessment exercises was not greatly different from what it would be in comparable “real life” situations. ▪ My performance in the programme was not greatly impaired by any feelings of stress or tension on my part.
Recommendation	<ul style="list-style-type: none"> ▪ Based on my experience of the assessment centre I would encourage others to attend an assessment programme. ▪ Overall, going through the assessment programme was a challenging and valuable experience.
Attitude towards testing	<ul style="list-style-type: none"> ▪ I think that an assessment centre is a fair way to determine candidates’ abilities. ▪ The assessment centre was a good reflection of what a person could do in the actual job. ▪ The assessment centre was a good way of selecting people into jobs. ▪ Using an assessment centre for the job is fair to candidates from different ethnic groups. ▪ Using an assessment centre to select applicants for the job is fair to both males and females.

Table 3-4: Constructs and items for section B

Cultural Category	Cultural dimension	Sample item
Collectivism and Relationship Preferences	Relationship-Task	<ul style="list-style-type: none"> Social competencies (being friendly, being accommodating, etc.) are more valued than cognitive competencies (critical thinking, problem solving, etc.). Relationships are important, only then will the task get done.
	Harmony-Control	<ul style="list-style-type: none"> It is more important to be in harmony with the environment than to take control of it. It can be difficult to be friends with someone we disagree with.
	Shame-Guilt	<ul style="list-style-type: none"> People are driven to do things to maintain the good name of the group (family, team). People are concerned with what others have to say about them if they do something wrong.
	We-I	<ul style="list-style-type: none"> Collaboration and a sense of group achievement and loyalty have primacy over personal goals. People tend to hesitate in giving their opinions before knowing what others have to say, think, or feel.
Power Distance and Preference of Hierarchy	Hierarchy-Equality	<ul style="list-style-type: none"> Work duties and responsibilities are distributed according to seniority and age. Subordinates accept directions from their superiors without question.
	Religious-Secular	<ul style="list-style-type: none"> Workplace ethics should be guided by one's religious teachings. People believe that religious obligations must be met, even at the sacrifice of productivity.
Communication Context	High Context-Low Context	<ul style="list-style-type: none"> People focus on the implied meaning and nonverbal communication that "what you see is not what you get, as there is more than meets the eye". When giving feedback, people are expected to be indirect and not so specific.

(Adapted from Abdullah, 2009; Abdullah & Lim, 2001; Abdullah & Low, 2001)

3.9.1.2 Selection of the Measurement Scale

In this study, a five point likert scale as displayed in Figure 3.3 has been employed to obtain the responses or perceptions of the respondents towards ACs practices and national culture.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Figure 3-3: The Likert scale used

In this manner, the respondents were guided to give accurate answers compared to unlabeled indicators. The assessment used a scale of 0 – 5 as follows: 1 (Strongly

Disagree), 2 (Disagree), 3 (Neither Agree nor Disagree), 4 (Agree), 5 (Strongly Agree). In other words, it makes it easier for the respondents to make the assessment accordingly that would represent the actual perception of the respondents. Based on a review of previous literatures, there are many Likert scale measurements used by researchers, depending on the objectives of their study. Byrne (2013) stated that if the number of categories for the answers is big and the data are approaching a normal distribution, the question on the type of data, either ordinal or interval, can be ignored. Furthermore, the big range is to increase the reliability of the items in the questionnaire (Kanji, 2012) and to enable the respondents to produce a better discrimination (Fornell, Johnson, Anderson, Cha, & Bryant, 1996).

3.9.2 Pre-Study

After the questionnaire is completely developed, a pre-study was carried out. In general, a pre-study is a small-scale study before the actual study. Therefore, a pre-study was carried out to evaluate the study instrument in the Public Service Department of Malaysia. The pre-study was carried out to identify any obscurity in the instruction, items as well as the answers from the respondents that need to be given attention to so that in the actual study, the questionnaire can be easily understood. Anderson (2006) has suggested that the number of respondents in a pre-study in the range of 6-12 is effective enough in getting the early responses that have to be taken into consideration before the actual study.

27 respondents were involved in the pre-study. The findings from this pre-study can also serve as the basis to improve the questionnaire. All respondents in the pre-study have taken around 25-30 minutes to complete the questionnaire. Respondents who were quite confused in understanding the statements or the items had the opportunity to directly ask the researcher for a feedback. All important matters arising from the pre-study have been taken into account for consideration during the improvement of the items in the questionnaire.

One important aspect in a research involving the application of instruments is validity (Hair, 2010). In general, validity shows how far the instrument can measure the items to be measured by the researcher (Bollen, 1989). Hair, Black, Babin, Anderson, and Tatham (2010) stated that validity is a measurement that can represent the concept under study. Hair et al. (2010) also added that to ensure the validity, an in depth

understanding on the essence of the measurement is needed so that the measurement would be accurate. However, an accurate measurement is not necessarily valid if the questions or items used are wrong. This also means giving a similar meaning by defining it as an adequate measurement represented by a number of items explaining on the concept, acting as the measuring function that assesses how far the dimension or the construct has been outlined (Sekaran, 2006b).

There are several types of validity in research dealing with the application of instruments or questionnaire in collecting the data. Among them is content validity which can be evaluated through literatures. As mentioned previously, the questionnaire in this study has been adopted from previous survey and empirical research by various scholars in measuring attitudes towards ACs and reactions towards selection procedures (Bauer et al., 2001; Bell & Arthur, 2008; Byham, 2005; Dodd, 1977; Gilliland, 1993; Hausknecht et al., 2004; Ryan & Ployhart, 2000; Smither et al., 1993; Stone et al., 2007). Meanwhile, in measuring national culture, series of studies by Abdullah and his associates is adapted for this study (Abdullah, 2009; Abdullah & Lim, 2001; Abdullah & Low, 2001).

In addition, the questionnaire was also assessed by two experts in AC to evaluate its face validity. Comments and suggestions given by the experts have been taken into account in the improvement process of the items in the instruments before carrying out the actual study. Therefore, the questionnaire used has fulfilled the face validity and content validity. As stated by Hair et al. (2010), there is no difference between face validity and content validity, but the content validity is of a higher standard than the shallow face validity (Sekaran, 2006b).

Other than that, Bollen (1989) had suggested that the validity of a construct can be evaluated empirically from the results of factor analysis. This can be carried out by evaluating if there are items that are also indicators for other constructs. If this happens, the validity in terms of construct is quite low. In other words, the construct validity shows how far the constructs can be measured by the items used. One thing that is related to validity is convergent validity. Value of the factor loading regressed to the latent construct which is above 0.70 implies that the item belongs to the particular construct. In order to verify that each latent construct is different from another, the discriminant validity must be tested empirically (Bollen, 1989).

3.9.3 Study Population and Sampling

Sampling is a process of selecting adequate number of elements in a population so that the study towards the sample in terms of the understandings will allow the researcher to generate a generalization for the elements in the population (Sekaran, 2006b). In short, it is very important to acquire suitable number of elements to represent the study population by giving equal chances for them to get chosen. The need for the sampling is clearly to estimate the value of the parameters from the population through statistical values of the sample. Sampling method carried out in a scientific manner will ensure that the statistical value of the sample is approaching the population parameter (Sekaran, 2006b). The sampling proses will also leverage the time, energy and cost of a research.

The sampling design employed in this quantitative study was purposive sampling. This is because the study population was narrowed to Public and Administrative Officers in various ministries who had experience as participant in ACs. The sample selection at this stage was carried out in a simple method, categorized as non-probabilistic sampling. Sampling selection through randomisation process individually cannot be conducted due to several factors. Among the factors is the large study population which has made it difficult for the researcher to fulfil the requirement for probabilistic sampling.

3.9.4 Reliability

A study must provide information on the reliability of the survey instrument. Reliability is defined as the consistency in the measurement (Anderson & Anderson, 1998; Hair, 2010). Sekaran (2006) defined reliability as a measurement without errors which guarantees a consistent measurement across time in the survey instrument. In other words, she added that reliability is a measurement of the stability of the measuring instrument. The reliability coefficient often used in most researches is the Cronbach alpha (J. F. Hair, 2010; Sekaran, 2006b).

The value for the reliability coefficient is in the range of 0 to 1. There are several opinions about the acceptable value for the reliability coefficient in a study. Among them, Nunnaly (1978) stated that a reliability coefficient as low as 0.50 is adequately acceptable but a higher value is definitely better (Sekaran, 2006b), and Hair et al. (2010) on the other hand suggested that a coefficient higher than 0.70 is generally acceptable.

3.9.5 Data Collection

The questionnaires for the perceptions towards ACs and cultural influences were distributed through the *Institut Tadbiran Awam Negawa* (INTAN). The distribution was done for 5 months from December 2013 to April of 2014. A number of 800 questionnaires had been distributed to the INTAN campuses across Malaysia i.e. INTAN East Coast Region (INTIM), INTAN Southern Region (IKWAS) and INTAN Northern Region (INTURA).

3.10 Statistical Techniques for Data Analysis

The followings are the statistical techniques used in the data analysis, which begins with descriptive analysis, correlation analysis, and partial least squares path modelling.

3.10.1 Descriptive Analysis

The data were first checked descriptively in terms of central tendency measurement and dispersion measurement (Sekaran, 2006b). This is important to obtain the initial overview on how the respondents answered the items in the questionnaire and their measurement metrics should be satisfactory (Sekaran, 2006b). Basically, researchers can use either the summated score or the mean score for each item studied.

3.10.2 Correlation Analysis

Correlation is a standard covariance that shows the strength and direction of the relationship between two random variables (J. F. Hair, 2010). Pearson correlation coefficient is normally used to measure the correlation degree and the value lies in the range of $[-1, 1]$. If the correlation between the items or the latent constructs is above 0.90, they could be measuring the same issue. This means that there is a repetition in the meaning of the item of the latent construct. This is known as multicollinearity. Therefore, the item or the latent construct can be rechecked or removed from the subsequent analysis.

3.10.3 Partial Least Squares Path Modelling

The PLS estimation has gained the attention of many researchers (J. F. Hair et al., 2010; Jorg Henseler, Ringle, & Sinkovics, 2009). PLS is the second generation statistical multivariate analysis technique that evaluates the outer model (measurement model) and inner model (structural model) simultaneously to minimize variance errors (Sang, Lee, &

Lee, 2010). Compared to the common covariance analysis with maximum likelihood (ML) estimation, PLS estimation is more application-oriented and predictive in nature (R. B. Kline, 2015) and is more suitable if the requirement of having a big sample size is limited or there is an identification problem in ML (R. B. Kline, 2015).

Modelling using this technique does not require an emphasis on the theory in developing a model, but it is more towards developing the theory itself (Markus, 2012). This causal-predictive approach should be regarded as complementing to the SEM technique with ML estimation (Barroso, Carrión, & Roldán, 2010). Among the advantages of using the PLS technique are as follows:

- i. The sample size is not too big or in other words, the sample is relatively small (J. F. Hair, 2010),
- ii. The assumption on the normality of the data distribution is not needed (Fornell et al., 1996)
- iii. It can handle constructs that are reflective and formative in nature even when the construct only has one item. This reflective construct is the latent variable measured using several items to represent that particular construct. The indicators used are in covariance with each other. Meanwhile, constructs that are formative in nature are the items or variables that cause a latent construct to occur. The item indicators used are not necessary to be in covariance.
- iv. The analysis is based on variance that is oriented with predictive aspects or prediction towards the model (variance explanation).
- v. The PLS technique can manage multicollinearity issues (Barroso et al., 2010; Cassel, Hackl, & Westlund, 1999), where the technique is distribution-free, which is free from distribution assumption (independence) between one another within the independent variables (Gefen, Straub, & Boudreau, 2000).

3.10.3.1 Multicollinearity

Partial least squares establish measurement models and structural models by means of multiple regressions. Therefore, before running the PLS-SEM, data were screened for violations of the regression assumption. Data were first screened for multicollinearity. Multicollinearity is used to measure correlation between independent or

also known as exogenous variables. The variables are having multicollinearity problem if the correlation value is equal or above than 0.90 (Tabachnik and Fidell, 2007; Pallant, 2011) or tolerance value is lower than 0.20 (Field, 2009) or variance inflation factor (VIF) value is equal or greater than 5 (Hair et al., 2014). However, multicollinearity can cause problems in regression analysis because the two independent variables are considered measuring the same attribute; hence, difficult to verify the relationship between each independent variable and dependent variable (Tabachnik and Fidell, 2007; Pallant, 2011).

In this study, the multicollinearity was verified by using SPSS. The correlation among independent variables was determined by pearson correlation. The tolerance and variance inflation factor (VIF) were determined through regression analysis.

3.10.3.2 Data Normality

Examination of normality of the data is a necessary step prior to using certain multivariate data analysis techniques including regression analysis and SEM. In this regard, when a normality assumption is violated, an alternative data analysis technique should be employed (Henseler et al., 2009). The data normality test for this study was examined using Kolmogorov-Smirnov and Shapiro-Wilk statistical analyses.

3.10.3.3 Common Method Bias

It is typical that data collected using questionnaires are sensitive to Common Method Variance (CMV). Besides, the data that is collected from a group of respondents which are the same can also influence to this issue as they might be swayed by the social desirability, halo effects, or leniency effect (Podsakoff et al., 2003). Therefore, Harman's single factor test was used to check this issue (Podsakoff et al., 2003).

3.10.3.4 Reliability/Internal Consistency

In this study, the reliability/internal consistency of the constructs was determined by using the Cronbach's alpha coefficient and composite reliability. PLS was run for the measurement model. Cronbach's alpha coefficient and composite reliability were analyzed. A composite reliability of 0.70 or greater is considered acceptable (Fornell and Larcker 1981).

3.10.3.5 Cross Loading

The study again assessed divergent validity on the indicated level as Henseler et al. (2009) suggested evaluating the indicators loading and cross-loading. The divergent validity is assessed, first, by looking at the respective loadings and cross loadings if there are problems with any particular indicators. The cut-off value of 0.50 for an indicator loading is considered significant (Hair et al. 2010). The loading of each indicator is supposed to be greater than all of its cross-loadings to indicate divergent validity (Gotz et al., 2009). However, an indicator which loading value of higher than 0.50 but with cross-loading differences of <0.10 is deleted.

3.10.3.6 Heterotrait-monotrait (HTMT) ratio of correlation

The second method in assessing the divergent validity and discriminant validity by using the Heterotrait-monotrait (HTMT) ratio of correlation. Recently, there was an issue with the Fornell-Lacker Criterion because of its unreliability in detecting discriminant validity in a research (Henseler, Ringle, & Sarstedt, 2015). Therefore, Henseler et al. (2015) demonstrated a better method which is HTMT by means of Monte Carlo simulation; whereas, the performance of Fornell and Larcker criterion and cross loadings was compared with this new method. It showed that this new method of measuring discriminant validity is better in order to detect divergent validity as compared to the old methods. The method of assessing the HTMT criterion is by using threshold values. Gold et al. (2001) suggested the value of 0.90 but Kline (2011) is suggesting a more stringent value of 0.85. If the HTMT values are bigger than the threshold value, then there are problems in discriminant validity (Henseler et al., 2015).

3.10.4 Model Evaluation

The study conducted a confirmatory factor analysis (CFA) to check the properties of the latent constructs in the research model. The CFA tool used in this study was PLS-SEM. PLS-SEM technique has two components when examining the latent constructs: measurement model which is related towards the measurement model including the reliability of each individual item, internal consistency, convergent validity as well as divergent validity and discriminant validity. The second stage is the evaluation towards the structural model involving relationship between each latent construct under study (Barclay, Higgins, & Thompson, 1995). This structural model analysis relates to path

coefficient measures. Indicator loadings represent the strength of the indicators; and path coefficient relationships' estimate, determine the strength and the sign of the relationships between the constructs in the model (J. F. Hair et al., 2010). Accordingly, PLS-SEM algorithm first deals with measurement model parameters, then followed by estimation of the path coefficients in the structural model (J. F. Hair et al., 2010).

3.10.5 Evaluation of Measurement Model / Outer Model

As mentioned previously, the first component is the measurement models, also referred to as outer models in the PLS-SEM context. The measurement models relating the indicators to their own latent construct (Tenenhaus, Vinzi, Chatelin, & Lauro, 2005). It is one direction predictive relationships between each latent construct and its associated indicators, multiple relations are not permitted (J. F. Hair et al., 2010). Therefore, indicators are associated with only a single latent construct. In PLS-SEM, the coefficients for the relationships between reflective indicators and the latent construct are called outer loadings and the coefficients for the relationships between formative indicators and the latent construct are called outer weights (J. F. Hair et al., 2010). Regarding this matter, the factor loading is essential in evaluating the measurement model (outer model). The value of the factor loading also signifies the reliability of the item and it is suggested to be at 0.707 (Barclay et al., 1995). The goodness of the model is evaluated based on the composite reliability (CR), convergent validity and divergent validity. For the purpose of model validation, CR must be > 0.70 . The convergent validity is evaluated if the average variance (AVE) for each construct is > 0.50 . The factor loading in the PLS analysis also displays not only the loading for each item in the assigned construct but also displaying the cross loading towards other constructs. Through this way, the inspection for the cross loading also supports the divergent validity. This is because a good measurement model should have strong factor loading towards the assigned construct and weak cross loading towards other constructs.

3.10.5.1 Indicator Reliability

Individual indicator reliability signifies whether each indicator measure is consistent or low in measurement error. The individual reflective indicator reliability will be determined by factor loadings to their respective constructs. Individual indicator reliability is considered adequate when it has a factor loading that is greater than 0.70 on

its respective construct; this means that more than 50 per cent of the variance in the indicator is shared within the construct (Jorg Henseler et al., 2009).

Basically, the higher the average loadings lead to higher reliability (Anderson & Gerbing, 1988). However, in empirical research, weak loadings are frequently observed when newly developed scales are used (Hulland, 1999). Thus, to establish the significance and the relative importance of the factor loading of each reflective indicator, this study will follow the guidelines recommended by Hair et al. (2010). The reflective indicators with loading equal or greater than 0.50 will be accepted. The reflective indicator loadings below the acceptable value will be removed. However, Henseler et al. (2009) suggested to remove only low loading indicators if it can contribute to a substantial increase in composite reliability (CR) and average variance extracted (AVE).

3.10.5.2 Reliability/Internal Consistency

The most appropriate way to determine internal consistency in PLS-SEM is by looking at composite reliability values. Composite reliability is a measure of internal consistency that can be used to ensure how good a construct is measured by its indicators (Götz, Liehr-Gobbers, & Krafft, 2010). In PLS-SEM composite reliability can only be measured on the reflective indicator. The composite reliability is similar to Cronbach's alpha when measuring reflective construct reliability; however, it includes the actual factor loading and therefore better than Cronbach's alpha when measuring internal consistency reliability (Fornell & Larcker, 1981). Whereas, Cronbach's alpha uses equal weighting (Götz et al., 2010); that is, each indicator of a construct contributes equally (Fornell & Larcker, 1981); thus, it tends to provide a severe underestimation of the internal consistency reliability in PLS-SEM (Henseler et al., 2009). A composite reliability of 0.70 or greater is considered acceptable (Fornell & Larcker, 1981; J. F. Hair et al., 2010; Hulland, 1999; Tenenhaus et al., 2005).

3.10.5.3 Convergent Validity

When multiple indicators are used for an individual construct, the researcher should be concerned with the extent to which the items demonstrate convergent validity. The measurement model will be tested for convergent validity, which is the degree to which multiple indicators to measure the same concept are in agreement (Jorg Henseler et al., 2009). Anderson and Gerbing (1998) and Gefen and Straub (2005) stated that

convergent validity is established if all factor loadings for the indicators measuring the same construct are statistically significant. According to Fornell and Larcker (1981) convergent validity should be assessed through average variance extracted (AVE). Hair et al. (2010) suggested that convergent validity should be assessed through factor loadings, composite reliability and the AVE. The AVE determines the amount of the variance among the indicators that is explained by the latent construct relative to the amount of error due to measurement (Henseler et al., 2009).

3.10.6 Evaluation of Structural Model

The second component is the structural model or in PLS-SEM context is normally referred to as an inner model. The structural model shows the causal relationships (paths) between the endogenous (dependent variables) latent constructs and exogenous (independent variables) latent constructs (J. F. Hair, Ringle, & Sarstedt, 2011; Tenenhaus et al., 2005). This includes estimation of the path coefficient that represents the strength of the relationship that is hypothesized between endogenous and exogenous variables and the R^2 value determines the coefficient of determination (Barclay et al., 1995; Gefen et al., 2000). In other words, the amount of variance explained by the exogenous variables on the endogenous variables.

There is only one directional relationship between latent constructs, no loop in the causality model specifically PLS-SEM only allows recursive relationships in the structural model (J. F. Hair et al., 2011; Tenenhaus et al., 2005). The exogenous latent constructs are the constructs which do not have any path relation pointing at them; and endogenous latent constructs are the constructs that are explained by exogenous latent constructs in structural model relationships (J. F. Hair et al., 2011).

In PLS, explanation on the variance is important where the R^2 value as well as the path coefficient and its significance towards each relationship between the constructs serve as the indicators of suitability towards the model (Barclay et al., 1995; Gefen et al., 2000). In this case, the path coefficient is highly important in assessing the inner model. In order to evaluate the significance level of the path coefficients, the bootstrapping method was adopted. The bootstrapping process was carried out because the basis of the distribution was not known. The bootstrapping process was conducted through resampling method on the samples used. Usually, the sampling process is done for at least 5000 new samples to obtain the estimation on the significance of path coefficients

through t-value for each relationship in the model. This is carried out in order to see how far the data support the estimated hypothesised model. In other words, it is to check on the stability of the estimation (Hansmann & Ringle, 2005a). In short, t-test was employed to determine the significance level for each relationship between the latent variables in the research model.

3.10.6.1 Path Coefficient

The path coefficients are also used to evaluate the structural models. The path coefficients or model loadings are evaluated in terms of sign, magnitude and significance; interpreted as in regression analysis and equivalent to the standardized beta (β) weights (Jorg Henseler et al., 2009). The path coefficients indicate the strength and the direction of the causal links between latent constructs. Therefore, the path coefficients that do not match to the algebraic sign from the theoretical expectations do not support the hypotheses. The path coefficient significance level is determined by examining the path loadings between constructs through computed t-statistics. The t-statistics were estimated using the bootstrap resampling procedure. The bootstrapping procedure is a non-parametric approach for estimating the precision of the PLS-SEM estimates (Jorg Henseler et al., 2009). Bootstrapping results suggest the stability of the PLS-SEM estimates.

3.10.6.2 The coefficient of determination (R^2)

The coefficient of determination (R^2) of the endogenous latent construct explains the predictive power of the structural model and the effect level of the latent constructs. The R^2 is to assess the proportion of the variance in the endogenous constructs that can be accounted for by the exogenous constructs (J. F. Hair et al., 2011) and are interpreted in the same manner as R^2 values obtained from the regression analysis (Jorg Henseler et al., 2009). As a rule of thumb, in marketing research studies, R^2 values of 0.75, 0.50, or 0.25 can be described as substantial, moderate, or weak, respectively (J. F. Hair et al., 2011).

3.10.6.3 The f^2 Effect size

The f^2 effect size is done to exogenous variables towards endogenous variables. The f^2 effect size is measuring the changing in R^2 to comprehend whether the specific

exogenous construct has a substantial impact to the endogenous construct (Cohen, 1988). The method is by omitting or taking out a specific exogenous construct from the model and then the model is evaluated whether the construct that was omitted has a huge impact on the endogenous construct (Hair et al., 2014). Cohen (1988) suggested the values of 0.03, 0.15 and 0.35 for small, medium and large effect size.

3.10.6.4 Predictive Relevance (Q^2)

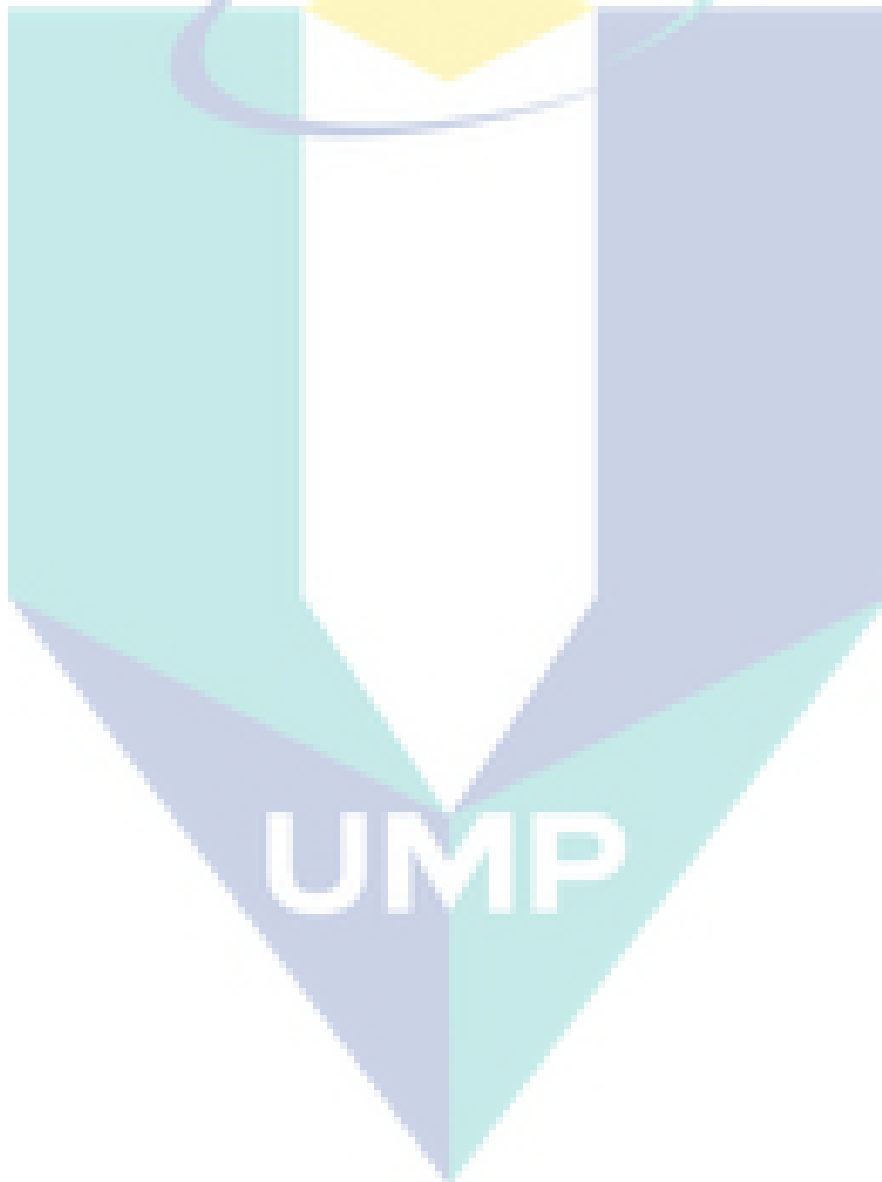
Another assessment of the structural model is the evaluation of model predictive relevance (Q^2). This method is using the blindfolding approach to measure the cross-validated redundancy for each of the construct (Hair et al., 2011). The Q^2 values predicts the empirical data whether it can be used again in future study (Hair et al., 2014). This method is only applied to a structural model that has endogenous latent variables that used reflective measurement model (Hair et al., 2011).

The Q^2 values are attained by blindfolding method in which certain data is omitted from the study by certain omission distance. This technique is resampling the data that is omitted in every d the data point in the endogenous construct and used the remaining data to estimate the parameter of the model (Chin, Marcolin, & Newted, 2003; J. Hair, Hult, Ringle, & Sarstedt, 2014; Jörg Henseler, Ringle, & Sinkovics, 2009; Tenenhaus et al., 2005). The omitted data are considered as missing values and are being replaced by the mean score value. This method is an iterative process that repeated until each and every data are omitted and the model is re-estimated (Hair et al., 2014). The omission distance (d) must be chosen in between 5 to 10 and the total number of observation must not be an integer when it is divided by the omission distance as the data omit the same set of data in each round of the blindfolding process (Hair et al., 2011, 2012). To confirm the predictive relevance (Q^2) of the model, the Q^2 values must be more than 0.

3.11 Summary

In general, this chapter explains on the research methodology used in conducting the study. The mixed-methods approach was particularly employed to answer the research questions, since the questions covered both aspects of qualitative and quantitative approaches. The participants for this research were individuals who are directly involved in the assessment process. For the first study (qualitative), assessors,

participants and also officers-in-charge, have been identified as the respondents and for the second study (quantitative) were participants of ACs. This chapter also covers the elaboration of the sampling design and the data collection method. Besides, the research instrument and the measurement are also discussed along with the pre-study carried out in order to improve the instrument quality. Further on, the explanation on each technique and statistical analysis used in this study are given including descriptive statistics, correlation and modelling analysis using PLS.



CHAPTER 4

QUALITATIVE FINDINGS

4.1 Introduction

This section describes the qualitative findings regarding AC practice in the Malaysian public sector based on two series of interviews. As discussed in Section 3.7, respondents for the first interviews were those who have experience as assessors and those who have experience as participants in ACs. Respondents for the second interviews were officers-in-charge of HR departments in those agencies using ACs to support their decision making in the areas of staff selection and promotion. In addition to these two series of interviews, the discussion also includes information gathered from two modules of ACs used by the federal and state public service commission.

Based on the qualitative analysis, seven themes that emerged from the data, are listed here.

- i. Theme One: The need to improve HR practices.
- ii. Theme Two: Adaptation of ACs in a high power distance society.
- iii. Theme Three: Minimising uncertainties.
- iv. Theme Four: Implications of preferences for relationships and harmony in AC practices.
- v. Theme Five: The influence of religion.
- vi. Theme Six: Acceptance of AC practices.
- vii. Theme Seven: The influence of contextual factors in AC practice.

Matrix of qualitative findings from two series of interviews and document review as discussed in the previous section can be summarised as in Table 4.2 below:

Table 4-1 Summary of qualitative findings

No	Theme	Sub-Theme	Notes
1	The need to improve HR practices	<ul style="list-style-type: none"> i. Improving the staff selection process ii. Support the staff promotion process 	<ul style="list-style-type: none"> i. The right attitude is more important than skills and knowledge ii. Limitation of examination and interview iii. Big pool of potential candidates iv. High operation cost v. Reduce external influences vi. Less related to actual job for selection purposes than for promotion
2	Adaptation of ACs in a high power distance society	<ul style="list-style-type: none"> i. Characteristics of a good follower ii. Characteristics of a good leader iii. Implementation during the development stage of ACs 	<ul style="list-style-type: none"> i. More hierarchical than equal ii. Yes Man with a creative mind set to analyse the risk, provide solution, and give alternative iii. The important of managing differences to bind the group iv. Leaderless activity v. Need to acknowledge senior assessors knowledge and experience
3	Minimising uncertainties	<ul style="list-style-type: none"> i. Rigorous processes in developing the modules ii. Rigorous processes for assessment iii. Rigorous processes for data integration iv. Contract job offers 	<ul style="list-style-type: none"> i. Series of workshops involved officers from various ministries ii. Several methods of assessments iii. Internet monitoring iv. Assessors and peer evaluations v. Observations outside of the official programme vi. Rigorous data integration to minimise error vii. Contract job offer to successful candidates
4	Implications of preferences for relationships and harmony in AC practices	<ul style="list-style-type: none"> i. More group oriented ii. Implications to feedback process 	<ul style="list-style-type: none"> i. Nature of work that more focused on group work ii. More group than being individual activities iii. Open criticism is not acceptable iv. Cooperate, not compete v. Outspoken candidates as inappropriate behaviour vi. No feedback given to the candidates (face saving, maintain harmony and avoid conflict) vii. Candidates reluctant to ask for feedback

No	Theme	Sub-Theme	Notes
5	The influence of religion	i. The influence of assimilation of Islamic Values ii. Competent and honest candidates iii. Honest and trustworthy assessors	i. Encourages good relationships and support each other to minimise error as no one is perfect ii. Strong attitude towards Islamic work ethics iii. AC is useful to assess honesty iv. Assessors as the back bone of AC. Selecting the best as assessors with a good record in service and a good attitude.
6	Acceptance of AC practices	i. By the management ii. Reactions to Procedural and Distributive Justice	i. Very costly but useful as a long-term investment ii. Well accepted by the management iii. The cabinet of Malaysia recognises the usefulness of AC. iv. Criteria selection assessors not clear v. Not enough training to assessor vi. Assessor not attend training vii. Perception that training is not important viii. Activities not related to the actual job
7	The influence of contextual factors in AC practice	i. During the decision-making process.	i. Include political factor ii. Specific requirements by stakeholders iii. Administrative criterion (i.e. age, race, gender, BMI and disability).

4.2 Findings from the document review

In addition to the two series of interviews, documentary data were also used in this study, as secondary research material to the qualitative data. This documentary analysis involved analysing two modules of assessment centres used by the federal and state public service commissions. Reviewing the modules is important in validating the interview data and gaining more understanding of how adaptations to ACs were made by the Malaysian public sector to meet the local requirements.

In this context, analyses from the modules show that culture plays an important role in the design and implementation of assessment centres. In the context of measuring competencies, the findings from the interviews indicate that all the respondents

mentioned that one of the most important aspects of the personal qualities of candidates is their attitudes/behaviour. They commented that, regardless of whether the AC is for selection, or promotion, attitude is the most important aspect, as compared to skills and knowledge. In relation to this finding, the analysis of the assessment centre modules used by the federal and state public commissions show that measuring candidates' attitudes was given more emphasis than the other competencies. As shown in Table 4.1, candidates must score an A for this dimension, with those not scoring an A being considered to have failed, even if they have performed well in the other activities. Information gathered for the modules also shows that *good attitude* is defined as a good behaviour, in line with Islamic and Eastern values.

From the assessment module, the elements of a collectivist culture can also be seen in measuring communication skills. Good communication skills are defined as existing when candidates can communicate effectively with the peer group members. They must also have self-confidence and, at the same time, must have high tolerance of others in completing the tasks and activities. Good candidates must also be able to cooperate as part of a team.

As previously explained, in addition to the assessors' evaluation, candidates are also required to evaluate the performance of their group members. The elements that are listed in the peer evaluation reflect the collectivist and high power distance characteristics of Malaysian society. The module shows that, in doing the peer evaluation, the candidates need to evaluate how well the group member performed in terms of leadership skills and attitude, as well as in the aspects of communication and creativity.

Table 4-2: Samples of Dimensions/Competencies and Activities in ACs for Personnel Selection

Dimensions/Competencies		Problem solving (Malay)	Case studies (Malay)	Problem solving (English)	Case studies (English)	Minimum Score	Weight
Personal quality	Attitudes/Behaviour Good and suitable manners in accordance to Islamic and Eastern values.	✓	✓	✓	✓	A	5/100
	Appearance/Grooming Image and grooming that makes his/her presence felt and well liked in any situation.	✓	✓	✓	✓	B	5/100
	Leadership potential Have potential as a good leader.	✓	✓	✓	✓	B	15/100
Skills	Communication Skills Ability to communicate within the peer group with confidence and effectiveness.	✓	✓	✓	✓	B	15/100
	Self Confidence Confident in self ability and having courage and a high tolerance level for the given tasks and challenges.	✓	✓	✓	✓	B	5/100
Knowledge	Maturation of ideas Ability to present mature, substantive, relevant, and acceptable ideas.	✓	✓	✓	✓	B	15/100
	Team Player Ability to manage and cooperate as part of a team.	✓	✓	✓	✓	B	10/100
Public speaking (Malay)	Ability and confidence to deliver ideas, information, and suggestions effectively.	-	-	-	-	B	10/100
Public speaking (English)	Ability and confidence to deliver ideas, information, and suggestions effectively.	-	-	-	-	C	10/100
Parliament Debate	Ability to transcend ideas and information with confidence.	-	-	-	-	C	10/100
2.4 kilometre run fitness test		-	-	-	-	-	-

Scoring:

A : 80-100 percent B : 70-79 percent C : 60-69 percent D : 59 and below

4.3 Summary

This chapter presented and discussed the findings from the qualitative data collection and analysis. Seven main themes were described. Each theme focused on what appeared to be the key patterns of Malaysian ACs practice and the influence of culture. The findings focused on the purpose of implementation of ACs in Malaysian public sector and then moved to how local culture and context influence the design and implementation. The findings also discussed on the acceptance of ACs practice by the government of Malaysia, the management, among assessor as well as participants.

The findings from the qualitative data collection were adopted to inform and guide the second phase of this study (quantitative). As discussed in chapter 3, for the second study (quantitative), this study only focused on participants of ACs, this is because the number of assessors is too small for quantitative research. This quantitative study focused on evaluating further the acceptance of ACs approach by the candidates. As explained in section 2.11, exploring this issue is important as there are a limited number of studies on reactions to selection systems, and that further investigation is required (Steiner & Gilliland, 2001). In the same vein, qualitative findings also show that acceptance of ACs practice is also one of the theme that emerged from the interview. The subsequent chapter focuses on the quantitative findings, based on the survey conducted among ACs participants.

The logo of Universiti Malaysia Perlis (UMP) is a large, stylized letter 'U' composed of four overlapping triangles in shades of teal and light blue. The letters 'UMP' are printed in white, bold, sans-serif font across the center of the 'U' shape.

UMP

CHAPTER 5

QUANTATIVE DATA ANALYSIS AND RESULTS

5.1 Introduction

This chapter mainly discusses the quantitative results from the data analysis. Specifically, the chapter provides the findings of the measurement model and structural model that is developed from previous chapter. This data analysis response to validate and verify the model presented in chapter 2. Structural Equation Modelling (SEM) with SmartPLS software using Partial Least Squares (PLS) estimation were used to analyse the model with 381 useful feedbacks from the questionnaire. Data were collected from December 2013 to April of 2014.

All the survey responses were then converted into IBM SPSS Statistics 23 (Statistical Package for Social Science). These data were then analysed accordingly to determine the demographic characteristics of the survey respondents. Then, the data again is transformed into PLS-SEM format for further analysis to evaluate the model. The study applied smartPLS 3.0 (Ringle, Wende, and Will 2005) to estimate parameters of the measurement model (outer model) and structured model (inner model) as suggested by Hair et al. 2011. Furthermore, the study applied nonparametric bootstrapping with 5000 replications to obtain the standard errors of the estimates (Navarro et al. 2011).

5.2 Response Rate

There were 800 potential respondents approached to participate in the study during the data collection period, however only 405 were participated. Of the 405 questionnaire, 103 were found not completed, a large portion of the questions not answered and discarded. Therefore, only data from 381 respondents were deemed usable for further analysis

5.3 Data Screening and Preliminary Analysis

The first process carried out before the analyses was data screening. This was done to verify the suitability of using PLS path modelling in the current study; thus, the extent to which data collected meet the psychometric assumptions were assessed in advance. This process involves treatment of missing data, multicollinearity, data outlier, normality of data distribution, and common method bias which all may have a direct influence on the use of data analysis techniques. All the process was carried out with the help of software IBM SPSS Statistics 23 (Statistical Package for Social Science).

5.3.1 Outlier

381 sets of questionnaires were obtained and analysed by using SPSS 23 version. All of the outliers were removed leaving only 373 of complete sets of data that were considered for the analysis process to increase the authenticity of study (Sekaran, 2006a). Besides, due to the statistical analysis method reason, only questionnaires that were answered completely are considered for analytical purposes (Hansmann & Ringle, 2005b). Next, multivariate outliers are identified for each of the variables with Mahalanobis distance greater than the critical value of chi-squared ($df = 10, p < 0.001$) are removed from the data set (Filzmoser, 2005; Tabachnick & Fidell, 2012). Finally, 8 outliers have been removed and the total numbers of respondents (373) are still fulfilling the criteria needed for research which is at least 200 respondent.

5.3.2 Multicollinearity

Table 5.1 shows the correlation among independent variables were less than 0.90 threshold values. In addition, Table 5.2 shows the VIF and tolerance values of among independent variables which are lower than 5 and more than 0.20. The results suggested that there is no multicollinearity problem existed among the independent variables. Thus, the remaining data screening and primary analysis is proceeded.

Table 5.1: Correlations among constructs

Constructs	Distributive justice	Affect	Recommendation	Attitude	Information sharing	Structural aspect	Interpersonal Treatment	Collectivism and relationship preference	Power distance and preference hierarchy	Communication context
Distributive justice	1.000									
Affect	0.512	1.000								
Recommendation	0.558	0.635	1.000							
Attitude	0.582	0.553	0.568	1.000						
Information sharing	0.411	0.495	0.486	0.446	1.000					
Structural aspect	0.561	0.582	0.624	0.628	0.682	1.000				
Interpersonal Treatment	0.513	0.581	0.624	0.503	0.572	0.595	1.000			
Collectivism and relationship preference	0.332	0.224	0.326	0.261	0.277	0.352	0.297	1.000		
Power distance and preference hierarchy	0.228	0.195	0.223	0.200	0.220	0.267	0.228	0.534	1.000	
Communication context	0.176	0.184	0.211	0.158	0.132	0.218	0.252	0.358	0.359	1.000

Table 5.2: Variance Inflation Factor and Tolerance

Independent variables	Tolerance	VIF
Distributive justice	0.576	1.737
Affect	0.497	2.013
Recommendation	0.435	2.300
Information sharing	0.483	2.068
Structural Aspect	0.375	2.667
Interpersonal Treatment	0.466	2.145
Collectivism and relationship preference	0.623	1.604
Power distance and preference hierarchy	0.676	1.479
Communication context	0.806	1.240

Note: Dependent variable: Attitude

5.3.3 Data Distribution

The results of the tests showed that all constructs had significant values. This indicated that the data were not normal. The results of the test of normality show in Table 5.3.

Table 5.3: Test of Normality

Constructs	Kolmogorov-Smirnov^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Distributive justice	0.189	373	0.000	0.942	373	0.000
Affect	0.098	373	0.000	0.972	373	0.000
Recommendation	0.240	373	0.000	0.894	373	0.000
Information sharing	0.048	373	0.036	0.991	373	0.017
Structural aspect	0.075	373	0.000	0.977	373	0.000
Interpersonal treatment	0.095	373	0.000	0.974	373	0.000
Collectivism and relationship preference	0.123	373	0.000	0.950	373	0.000
Power distance and preference hierarchy	0.108	373	0.000	0.972	373	0.000
Communication	0.211	373	0.000	0.926	373	0.000
Attitude	0.128	373	0.000	0.950	373	0.000

This deviation from normality assumption was a strong reason for using PLS path modelling in this study (Henseler et al. 2009).

5.3.4 Common Method Bias

An exploratory factor analysis (EFA) was done and revealed that the unrotated factor solution of all the items in the questionnaire with the first factors explaining only 26.684% of the variance. This showed that no single factor is explaining more than 50% of the variance. Subsequently, there was no general factor generated from the unrotated factor solution. Thus, CMB is not contaminating the data. Analysis of CMB is as appendix H.

5.4 Descriptive Analysis

5.4.1 Respondents and demographic profiles

The descriptive statistics were derived in order to provide some simple quantitative descriptions of the data. Appropriate statistical procedure for descriptive statistical analysis, including frequencies and percentages used to present the main characteristics of the sample. The demographics profiles of the respondents is displayed in Table 5.4 below.

Table 5.4: Demographic Profiles

		Frequency	Percent
Gender	Male	92	24.7
	Female	281	75.3
Age	24	2	0.5
	25-35	358	96.0
	36-45	10	2.7
	46-55	3	0.8
Position	Top level Manager	10	2.7
	Middle Level Manger	228	61.1
	First level manager	135	36.2
Type of AC	Personal selection	302	81.0
Involved	Personnel promotion	18	4.8
	Personnel development	53	14.2
Duration of AC Involved	1 day	57	15.3
	2 days	122	32.7
	3 days	82	22.0
	More than 3 day	112	30.0

From the above table, it shows that 92 (24.7%) were male and 281 (75.3 %) were females. Meanwhile, most the respondents, 358 (96.0%) were in the range of 25-35 years old. Findings also shows that most of the respondents, 228 (61.1%), hold position as middle level manager. In term of respondents' involvement in ACs, majority of them involve in AC for personal selection, 302 (81.0%) and followed by AC for personnel development, 53 (14.2%). Most of the respondents also involved in the AC with more than 2 days with 82 (22.0%), 82 (22.0 %) for 3 days session and 122 (32.7 %) for two days session.

5.4.2 Culture

For culture constructs, as displayed in Table 5.5, three variables were used for this construct which are Collectivism and Relationship Preferences, Power Distance and Preference of Hierarchy, and Communication Context.

Table 5.5: Descriptive Statistics for Cultural Constructs

Cultural Constructs	Items	Mean	Std. Deviation
Collectivism and Relationship Preferences	Relationship_Task	3.70	0.651
	We_I	3.67	0.637
	Harmony_Control	3.55	0.633
	Shame_Guilty	3.86	0.649
Power Distance and Preference of Hierarchy	Hierarchy_Equility	3.11	0.788
	Religious_Secular	3.97	0.792
Communication Context	High_LowContext	3.38	0.683

The mean values of the respective indicators for Collectivism and Relationship Preferences were between 3.55 and 3.86. The indicator with the highest (3.86) was (Shame_Guilty). For Power Distance and Preference of Hierarchy, the mean values of the respective indicators were between 3.11 and 3.97 with the highest indicator (3.97) was "Religious_Secular" that shows religions still play an important role in our culture. The final variable for culture is communication context that shows the mean for this variable was 3.38.

5.4.3 Organisational Justice

As discussed in sub chapter 2.9.2, the organisational justice theory consists of two sub elements, i.e. procedural justice and distributive justice.

5.4.3.1 Procedural Justice

Procedural justice as Table 5.6 was measured using three variables which were structural aspect or formal characteristics, information sharing and interpersonal treatment.

Table 5.6: Descriptive Statistics of Procedural Justice

Procedural Justice	Items	Mean	Std. Deviation
Structural Aspect/Formal Characteristics	Chance_Perform	3.53	0.824
	Con	3.49	0.818
	Propriety_Ques	3.38	0.752
	Job_Relatedness	3.20	0.779
Information Sharing	Feedback	3.21	0.433
	Info_Known	3.29	0.834
	Openess	3.21	0.771
Interpersonal Treatment	Treatment	3.60	0.649
	Reconsideration	3.17	0.896
	Communication	3.56	0.690

As shown in Table 5.6, the mean values of the respective indicators for Structural Aspect or Formal Characteristics were between 3.20 and 3.53. The indicator with the highest (3.53) was “Chance_Perform” that shows the respondents see that it is important to make sure that the assessments or activities in AC are related to the actual job. In regard to respective indicators for Information sharing, it shows that the mean were between 3.21 and 3.29. For the final variable for procedural justice, Interpersonal Treatment, result shows that the mean were between 3.17 and 3.60, with the highest was treatment.

5.4.3.2 Distributive Justice

There was only one item to measure distributive justice. The mean for this variable was 3.50.

Table 5.7: Descriptive Statistics of Distributive Justice

	Mean	Std. Deviation
Distributive Justice	3.50	0.694

5.4.4 After AC

In addition to organisational justice (procedural and distributive justice) the current study also proposed the extension to the current theory of organisation justice by looking how acceptance of ACs process from the aspect of attitude towards ACs, affect to individual and recommendation to others.

Table 5.8: Descriptive Statistics of After AC

		Mean	Std. Deviation
After AC	Attitude	3.34	0.753
	Affect	3.28	0.652
	Recommendation	3.60	0.748

Table 5.8 above shows the mean values for attitude was 3.34, while the mean value for affect was 3.28 and finally the mean value for recommendation was 3.60.

5.5 Model Evaluation

5.5.1 Assessment of the Measurement Model

5.5.1.1 Reliability

Table 5.9 shows the values Cronbach's alpha coefficient, composite reliability (CR) and the number of indicators for each construct. The results demonstrated that Cronbach's alpha coefficient values ranged from 0.396 to 0.918. The composite reliability values also ranged from 0.749 to 0.933. Therefore, based on the results of Cronbach's Alpha and composite reliability as shown in the Table 5.19, the constructs were considered reliable.

Table 5.9: Results of Reliability

Construct	Cronbach's Alpha	Composite reliability	Number of indicators
Affect	0.746	0.839	4
Attitude towards AC	0.900	0.926	5
Collectivism & Relationship	0.759	0.839	5
Communication Context	0.396	0.749	2
Distributive Justice	0.761	0.863	3
Information Sharing	0.802	0.858	6
Interpersonal Treatment	0.918	0.933	8
Power Distance & Hierarchy	0.625	0.794	3
Recommendations	0.799	0.909	2
Structural Aspect	0.855	0.893	6

5.5.1.2 Convergent Validity

Table 5.10 shows the loading of the indicators, composite reliability (CR) and average variance extracted (AVE) values. The results of the analysis showed that 38 of the 44 indicators had loading values greater than 0.70 as recommended (Gotz et al., 2010; Henseler et al., 2009; Chin, 1998). As another indicator which had loading value of below 0.70, it was decided to keep the indicators in the model as if the AVE values are more than 0.50, the factor loadings can still be accepted until 0.40 or above (Hair et al., 2014). Table 5.10 also shows the results of the convergent validity analysis, which showed the number of indicators for each construct, loading values, t-values, composite reliability (CR) values, and average variances extracted (AVE) values. The loadings for all indicators exceeded the

recommended value (Hair et al. 2014) and all loadings values were significant ($P < 0.01$) with t-values ranged from 3.166 to 62.760. Composite reliability (CR) values, which is a measure of internal consistency, the value ranged from 0.749 to 0.933 which exceeded the recommended value of 0.70 (Hair et al. 2010). The results also showed that the AVE range from 0.507 to 0.715, which are above the accepted value (Fornell and Larcker, 1981; Henseler et al., 2009; Chin, 2010). Thus, the results indicated that these indicators satisfied the requirement for the convergent validity of their respective constructs.

Table 5.10: Loadings of indicators, CR and AVE

Constructs	Items	Loadings	t-values	p-values	CR	AVE
Affect	Afe1	0.818	30.974	0.000	0.839	0.566
	Afe2	0.732	15.837	0.000		
	Afe3	0.721	19.657	0.000		
	Afe4	0.733	21.764	0.000		
Attitude towards AC	Att1	0.828	34.645	0.000	0.926	0.715
	Att2	0.841	42.823	0.000		
	Att3	0.891	62.760	0.000		
	Att4	0.852	32.325	0.000		
	Att5	0.810	31.638	0.000		
Collectivism & Relationship	Cul2	0.806	22.115	0.000	0.839	0.514
	Cul3	0.743	16.862	0.000		
	Cul5	0.778	23.806	0.000		
	Cul6	0.591	8.265	0.000		
	Cul7	0.643	12.986	0.000		
Communication Context	Cul15	0.614	3.166	0.000	0.749	0.608
	Cul16	0.917	10.235	0.000		
Distributive Justice	Dis1	0.809	30.674	0.000	0.863	0.677
	Dis2	0.807	24.406	0.000		
	Dis3	0.851	38.637	0.000		
Information Sharing	Fee1	0.498	8.393	0.000	0.858	0.507
	Info1	0.726	18.418	0.000		
	Info2	0.767	22.526	0.000		
	Info3	0.745	23.454	0.000		
	Ope1	0.789	30.307	0.000		
	Ope2	0.709	17.027	0.000		

Table 5.10: Continue

Constructs	Items	Loadings	t-values	p-values	CR	AVE
Interpersonal Treatment	Com1	0.776	23.660	0.000	0.933	0.637
	Com2	0.755	21.385	0.000		
	Com3	0.749	24.759	0.000		
	Tre1	0.839	41.824	0.000		
	Tre2	0.846	38.123	0.000		
	Tre3	0.821	31.393	0.000		
	Tre4	0.767	21.791	0.000		
Power Distance & Hierarchy	Cul10	0.767	12.540	0.000	0.794	0.566
	Cul11	0.622	6.744	0.000		
	Cul9	0.850	16.572	0.000		
Recommendations	Rec1	0.909	59.024	0.000	0.909	0.833
	Rec2	0.916	71.526	0.000		
Structural Aspect	Chance	0.693	18.389	0.000	0.893	0.584
	Con1	0.664	15.985	0.000		
	Job1	0.725	23.446	0.000		
	Pro1	0.823	37.458	0.000		
	Pro2	0.810	39.879	0.000		
	Pro3	0.852	43.841	0.000		

1. Composite reliability (CR) = (square of the summation of the factor loading)/ (square of the summation of the factor loading) + (square of the summation of the error variances)
2. Average variance extracted (AVE) = (summation of the square of the factor loadings)/ (summation of the square of the factor loadings) + (summation of the error variances)

5.5.1.3 Cross Loading

Table 5.11 presents the loadings and cross loadings of the indicators of the constructs. Examination of the loadings and cross-loadings indicated that all the measurement items/indicators load highly on their own latent construct than on other constructs and, therefore, all constructs share a substantial amount of variance with their own indicators (Fornell and Bookstein 1982). An Item was deleted in this cross loading analysis (Job2) as it fails the cross loadings analysis. Thus, after the removal of the item; therefore, it is indicated the sufficiency of discriminant validity and construct validity of the model.

Table 5.11: Loadings and Cross Loadings of Indicators

	Affect	Attitude towards AC	Collectivism & Relationship	Communication Context	Distributive Justice	Information Sharing	Interpersonal Treatment	Power Distance & Hierarchy	Recommendations	Structural Aspect
Afe1	0.818	0.523	0.229	0.188	0.440	0.422	0.566	0.109	0.586	0.558
Afe2	0.732	0.350	0.127	0.029	0.281	0.358	0.392	0.057	0.420	0.367
Afe3	0.721	0.442	0.258	0.155	0.403	0.367	0.427	0.152	0.527	0.418
Afe4	0.733	0.362	0.218	0.155	0.413	0.406	0.408	0.150	0.388	0.414
Att1	0.478	0.830	0.238	0.080	0.515	0.417	0.431	0.124	0.482	0.540
Att2	0.518	0.844	0.270	0.158	0.506	0.391	0.441	0.160	0.504	0.552
Att3	0.511	0.891	0.280	0.125	0.498	0.396	0.457	0.178	0.529	0.581
Att4	0.436	0.851	0.294	0.117	0.475	0.436	0.448	0.214	0.435	0.484
Att5	0.442	0.808	0.322	0.077	0.453	0.293	0.447	0.140	0.447	0.472
Chance	0.443	0.453	0.386	0.206	0.422	0.457	0.529	0.182	0.491	0.684
Com1	0.482	0.413	0.339	0.199	0.446	0.500	0.776	0.181	0.532	0.535
Com2	0.528	0.405	0.297	0.244	0.423	0.535	0.755	0.197	0.522	0.548
Com3	0.441	0.412	0.372	0.256	0.404	0.555	0.750	0.224	0.481	0.554
Con1	0.397	0.413	0.302	0.135	0.369	0.494	0.530	0.155	0.408	0.641
Cul10	0.178	0.125	0.474	0.197	0.127	0.114	0.185	0.765	0.215	0.123
Cul11	0.131	0.109	0.257	0.188	0.109	0.168	0.114	0.622	0.136	0.142
Cul15	0.184	0.219	0.387	0.614	0.182	0.088	0.202	0.358	0.255	0.177
Cul16	0.137	0.052	0.159	0.917	0.106	0.174	0.195	0.109	0.098	0.155
Cul2	0.220	0.273	0.804	0.129	0.329	0.176	0.321	0.491	0.334	0.300
Cul3	0.189	0.295	0.742	0.225	0.326	0.222	0.282	0.481	0.337	0.335
Cul5	0.215	0.238	0.778	0.212	0.301	0.245	0.323	0.447	0.264	0.324
Cul6	0.185	0.085	0.592	0.207	0.238	0.146	0.263	0.293	0.187	0.222
Cul7	0.211	0.261	0.645	0.267	0.226	0.226	0.354	0.431	0.334	0.306
Cul9	0.088	0.183	0.585	0.167	0.248	0.157	0.217	0.852	0.210	0.249
Dis1	0.476	0.510	0.269	0.137	0.809	0.430	0.407	0.131	0.436	0.488
Dis2	0.358	0.398	0.382	0.106	0.807	0.211	0.420	0.211	0.478	0.401
Dis3	0.456	0.522	0.333	0.155	0.851	0.364	0.458	0.229	0.467	0.480
Fee1	0.374	0.307	0.096	0.157	0.238	0.498	0.349	0.068	0.314	0.347
Info1	0.296	0.254	0.116	0.062	0.190	0.726	0.409	0.119	0.263	0.490
Info2	0.343	0.314	0.172	0.089	0.274	0.767	0.464	0.163	0.280	0.549
Info3	0.347	0.322	0.206	0.116	0.300	0.745	0.478	0.142	0.311	0.503

Table 5.11: Loadings and Cross Loadings of Indicators

	Affect	Attitude towards AC	Collectivism & Relationship	Communication Context	Distributive Justice	Information Sharing	Interpersonal Treatment	Power Distance & Hierarchy	Recommendations	Structural Aspect
Job1	0.391	0.437	0.295	0.130	0.383	0.489	0.492	0.282	0.435	0.724
Ope1	0.449	0.420	0.310	0.179	0.366	0.789	0.637	0.157	0.405	0.540
Ope2	0.364	0.290	0.249	0.126	0.311	0.709	0.534	0.168	0.310	0.399
Pro1	0.463	0.475	0.363	0.161	0.409	0.543	0.559	0.229	0.517	0.812
Pro2	0.468	0.468	0.288	0.147	0.403	0.506	0.547	0.131	0.495	0.814
Pro3	0.481	0.508	0.345	0.144	0.476	0.513	0.573	0.183	0.542	0.850
Rec1	0.674	0.555	0.329	0.161	0.501	0.456	0.587	0.210	0.909	0.589
Rec2	0.507	0.485	0.421	0.176	0.520	0.369	0.590	0.243	0.916	0.567
Tre1	0.520	0.465	0.355	0.162	0.454	0.622	0.839	0.176	0.556	0.586
Tre2	0.463	0.438	0.376	0.197	0.452	0.553	0.846	0.236	0.519	0.586
Tre3	0.457	0.420	0.415	0.217	0.411	0.587	0.821	0.199	0.510	0.582
Tre4	0.467	0.358	0.274	0.115	0.318	0.504	0.767	0.124	0.466	0.502
Tre5	0.503	0.435	0.308	0.147	0.405	0.554	0.827	0.150	0.528	0.591

5.5.1.4 Discriminant Validity

Table 5.12 shows the results of the analysis on the discriminant validity of the constructs based on Fornell and Larcker criterion (1981). The bold diagonal elements in the table represent the square root of the AVE scores. The off-diagonal elements are the correlations between constructs. The bold diagonal elements, the square root of AVE values range from 0.712 to 0.912 exceeding 0.50 recommended values.

Table 5.12: Fornell and Larcker

Constructs	A	B	C	D	E	F	G	H	I	J
Affect (A)	0.752									
Attitude towards AC (B)	0.566	0.845								
Collectivism and relationship preference (C)	0.285	0.331	0.717							
Communication context (D)	0.187	0.133	0.289	0.78						
Distributive justice (E)	0.522	0.579	0.399	0.161	0.823					
Information sharing (F)	0.519	0.458	0.286	0.178	0.407	0.712				
Interpersonal treatment (G)	0.603	0.526	0.432	0.242	0.521	0.693	0.798			
Power distance and preference hierarchy (H)	0.162	0.193	0.606	0.237	0.232	0.195	0.235	0.753		
Recommendation (I)	0.646	0.569	0.412	0.185	0.559	0.451	0.645	0.249	0.912	
Structural aspect (J)	0.579	0.603	0.434	0.203	0.539	0.655	0.706	0.253	0.634	0.764

The bold diagonal AVE element for each construct was significantly larger than any correlations involving the construct. That indicated, all constructs share greater variance with their own measures than with other constructs in the model, thus establishing adequate discriminant validity.

5.5.1.5 Heterotrait-monotrait (HTMT) ratio of correlation

In this study, the threshold value used is 0.85. First, by using smart PLS 3 software, PLS algorithm was run and the result of the HTMT ratio of correlations is depicted in the Table 5.13. The result indicated that there is no problem in discriminant validity according to the $HTMT_{0.85}$ criterion. The result also shows that the latent constructs are really discriminant with each other. Therefore, the assessment of measurement model (outer model) is complete and the analysis is proceeded to evaluate the structural model (inner model).



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Table 5.13: HTMT analysis

Constructs	A	B	C	D	E	F	G	H	I
Affect (A)									
Attitude towards AC (B)	0.678								
Collectivism and relationship preference (C)	0.368	0.393							
Communication context (D)	0.350	0.297	0.641						
Distributive justice (E)	0.677	0.699	0.524	0.332					
Information sharing (F)	0.656	0.527	0.343	0.284	0.506				
Interpersonal treatment (G)	0.721	0.577	0.515	0.414	0.621	0.785			
Power distance and preference hierarchy (H)	0.247	0.245	0.836	0.606	0.308	0.269	0.299		
Recommendation (I)	0.828	0.670	0.524	0.397	0.717	0.554	0.753	0.350	
Structural aspect (J)	0.711	0.685	0.535	0.371	0.668	0.790	0.796	0.325	0.765

In summary, the results of the analysis showed that: (1) the individual indicator reliability for each construct was adequate with loading scores greater than 0.70 of the cut off value and some of the loadings that are below than 0.70 are still accepted in the model as their AVE is already suffice with the values that are more than 0.50 (2) The internal consistency of the indicators was determined by Cronbach's alpha coefficient and composite reliability (CR). Both Cronbach's alpha and CR scores suggested that the constructs were reliable; (3) The analysis also demonstrated that the results satisfied the requirement for convergent validity: the loading score for all indicators were significant and exceeded the recommended cut off value of 0.50 (Hair et al., 2010) and the AVE scores also above the recommended cut off value; (4) The constructs also achieved adequate discriminant validity by satisfying the Fornell-Larcker criterion (1981), no cross loading and HTMT criterion.

5.5.2 Assessment of the Structural Model

5.5.2.1 Path Coefficient

Data from Figure 5.1 and Figure 5.2 revealed that most of the path coefficient or regression weights are important and they also statistically significant at alpha = 0.01 (1% error) significance level.

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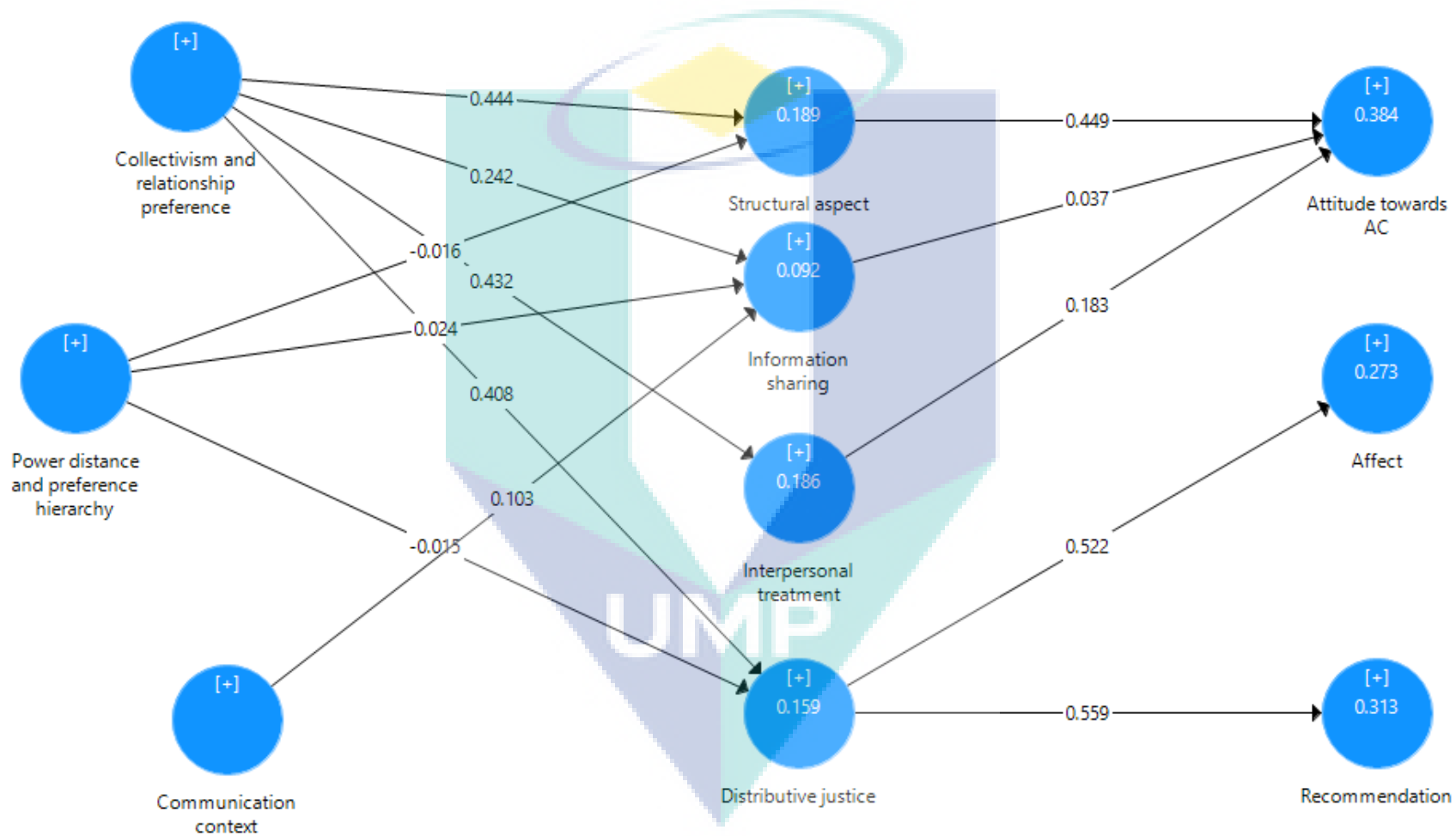


Figure 5-1: Path coefficient of structural model

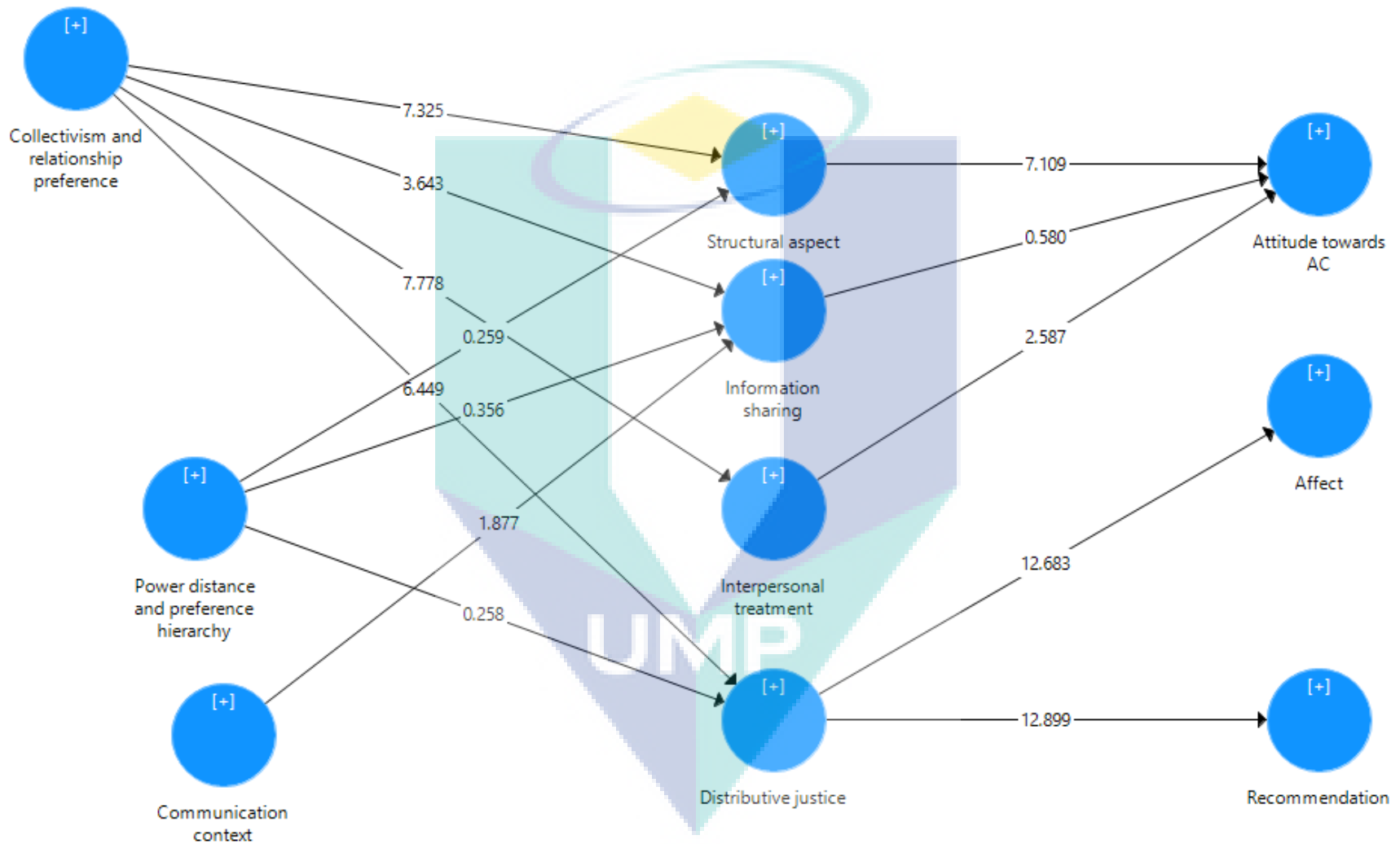


Figure 5-2: Bootstrapping analysis of the research model

5.5.2.2 Hypotheses Testing

There are thirteen hypotheses that were proposed in the structural equation model and they are being tested using PLS estimation. The result of the modelling is depicted in the Table 5.14 below. The table represents the path coefficient (β) and their significance level in the structural model. Summary of analysis of the relationship between the constructs are as follow:

H1: Collectivism and relationship preference is negatively related to structural aspect
(Collectivism & Relationship \rightarrow Structural Aspect)

It is also found that collectivism and relationship preference significantly influence structural aspect ($\beta = 0.444$, $t = 7.325$, $p = 0.000$ was significant) but the hypothesis H1 was not supported.

H2: Power distance and preference to hierarchy is negatively related to structural aspect
(Power Distance & Hierarchy \rightarrow Structural Aspect)

However, findings indicate that power distance and preference to hierarchy was not a significant factor in influencing Structural Aspect ($\beta = -0.016$, $t = 0.259$, $p = 0.802$ was not significant) and the hypothesis H2 was not supported.

H3: Collectivism and relationship preference is negatively related to information sharing
(Collectivism & Relationship \rightarrow Information Sharing)

Finding also shows that collectivism and relationship preference was a significant factor in influencing Information Sharing ($\beta = 0.242$, $t = 3.643$, $p = 0.00$ was significant) but the hypothesis H3 was not supported.

Table 5.14: Path Coefficient and Hypothesis testing

No	Relationships	Std Beta	SE	t-values	p-values	Sig.	Decision
H1	Collectivism & Relationship → Structural Aspect	0.444	0.062	7.325***	0.000	Significant	Not supported
H 2	Power Distance & Hierarchy → Structural Aspect	-0.016	0.063	0.259***	0.802	Not Significant	Not Supported
H 3	Collectivism & Relationship → Information Sharing	0.242	0.067	3.643***	0.000	Significant	Not supported
H 4	Power Distance & Hierarchy → Information Sharing	0.024	0.067	0.356***	0.721	Not Significant	Not Supported
H 5	Communication Context → Information Sharing	0.103	0.054	1.877***	0.057	Significant	Not supported
H 6	Collectivism & Relationship → Interpersonal Treatment	0.432	0.056	7.778***	0.000	Significant	Supported
H 7	Power Distance & Hierarchy → Distributive Justice	-0.015	0.06	0.258***	0.798	Not Significant	Not Supported
H 8	Collectivism & Relationship → Distributive Justice	0.408	0.064	6.449***	0.000	Significant	Not supported
H 9	Structural Aspect → Attitude towards AC	0.449	0.063	7.109***	0.000	Significant	Supported
H 10	Information Sharing → Attitude towards AC	0.037	0.064	0.580***	0.561	Not Significant	Not Supported
H 11	Interpersonal Treatment → Attitude towards AC	0.183	0.07	2.587***	0.009	Significant	Supported
H 12	Distributive Justice → affect	0.552	0.041	12.683***	0.000	Significant	Supported
H 13	Distributive Justice → recommendation	0.559	0.043	12.899***	0.000	Significant	Supported

*** p<0.01 (t>2.33, one-tailed), ** p<0.05 (t>1.645, one-tailed), * p<0.1 (t>1.28, one-tailed)

H4: Power distance and preference to hierarchy is negatively related to information sharing

(Power Distance & Hierarchy → Information Sharing)

Finding also shows that power distance and preference to hierarchy was not significantly influence Information Sharing ($\beta = 0.024$, $t = 0.356$, $p = 0.721$ was not significant). Therefore, Power Distance & Hierarchy was not a contributing factor in influencing Information Sharing; thus, the hypothesis H4 was not supported.

H5: High context communication is negatively related to information sharing

(Communication Context → Information Sharing)

It is also found that high context communication significantly influence information sharing ($\beta = 0.103$, $t = 1.877$, $p = 0.057$ was significant) but the hypothesis H5 was not supported

H6: Collectivism and relationship preference is positively related to interpersonal treatment

(Collectivism & Relationship → Interpersonal Treatment)

Finding also shows that collectivism and relationship preference was a significant factor in influencing Interpersonal Treatment ($\beta = 0.432$, $t = 7.778$, $p = 0.00$ was significant) and the hypothesis H6 was supported.

H7: Power distance and preference to hierarchy is negatively related to distributive justice

(Power Distance & Hierarchy → Distributive Justice)

However, findings indicate that power distance and preference to hierarchy was not a significant factor in influencing Distributive Justice ($\beta = -0.015$, $t = 0.258$, $p = 0.798$ was not significant) and the hypothesis H7 was not supported.

H8: Collectivism and relationship preference is negatively related to distributive justice

(Collectivism & Relationship → Distributive Justice)

It is also found that collectivism and relationship preference significantly influence \rightarrow Distributive Justice ($\beta = 0.408, t = 6.449, p = 0.000$ was significant) but the hypothesis H8 was not supported.

H9: Structural aspect is positively related to attitude towards ACs

(Structural Aspect \rightarrow Attitude towards AC)

It is also found that structural aspect significantly influence attitude towards AC ($\beta = 0.449, t = 7.109, p = 0.000$ was significant) and the hypothesis H9 was supported.

H10: Information sharing is positively related to attitude towards ACs

(Information Sharing \rightarrow Attitude towards AC)

However, findings indicate that information sharing was not a significant factor in influencing attitude towards AC ($\beta = 0.037, t = 0.580, p = 0.561$ was not significant) and the hypothesis H10 was not supported.

H11: Interpersonal treatment is positively related to attitude towards ACs

(Interpersonal Treatment \rightarrow Attitude towards AC)

It is also found that interpersonal treatment significantly influence attitude towards AC ($\beta = 0.183, t = 2.587, p = 0.009$ was significant) and the hypothesis H11 was supported.

H12: Distributive justice is positively related to affect

(Distributive Justice \rightarrow Affect)

It is also found that distributive justice significantly influence affect ($\beta = 0.552, t = 12.683, p = 0.000$ was significant) and the hypothesis H12 was supported.

H13: Distributive justice is positively related to recommendation

(Distributive Justice \rightarrow Recommendation)

It is also found that distributive justice significantly influence recommendation ($\beta = 0.559, t = 12.899, p = 0.000$ was significant) and the hypothesis H13 was supported.

5.5.2.3 The Coefficient of Determination (R^2)

Figure 5.3 below, the highest coefficient was scored by Attitude towards AC variables with more than 0.35 score. In contrast, Information Sharing variables had the lowest coefficient which is below then 0.1.



Figure 5-3: R-square adjusted

5.5.2.4 The f^2 Effect size

In the Table 5.15 below, it can be seen that there was large effect size of Distributive Justice on Recommendation and Affect with values that were higher than 0.35 respectively. Other than that, Power Distance variable fail to show any effect on other variables by scoring 0 on all of its endogenous variables. In addition, it can also be seen that Attitudes towards AC variables have very low effect size with its predecessor variables as they have small values for all of their effect size.

Table 5.15: f^2 Effect size

	A	B	C	D	E	F	G	H	I	J
Affect (A)										
Attitudes towards AC (B)										
Collectivism (C)					0.125	0.039	0.229			0.154
Communication (D)						0.011				
Distributive Justice (E)	0.375								0.456	
Information Sharing (F)		0.001								
Interpersonal Treatment (G)		0.022								
Power Distance (H)					0.000	0.000				0.000
Recommendation (I)										
Structural Aspect (J)		0.147								

5.5.2.5 Predictive Relevance (Q^2)

In Table 5.16 below show the predictive relevance for all of the variables studied. The values ranged from 0 to 0.263. It can be seen that the variables Collectivism and relationship preference, Communication context and Power distance and preference hierarchy fail to have predictive relevance as they had 0 values of predictive relevance. On the other hand, the other variables are fulfilling the criteria of predictive relevance of the structural model.

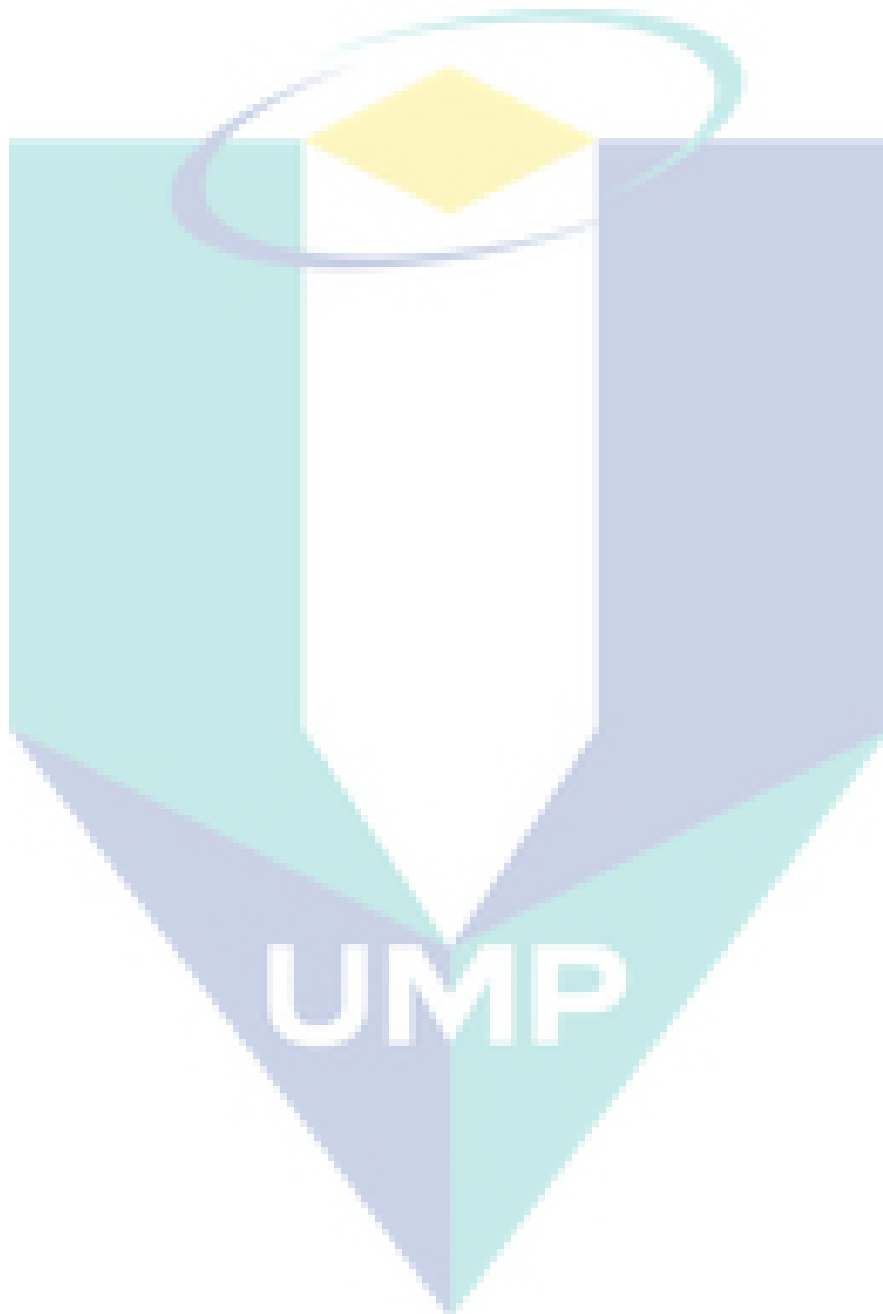
Table 5.16: Predictive Relevance (Q^2)

Constructs	Q^2
Affect	0.143
Attitude towards AC	0.263
Collectivism and relationship preference	0.00
Communication context	0.00
Distributive justice	0.10
Information sharing	0.04
Interpersonal treatment	0.112
Power distance and preference hierarchy	0.00
Recommendation	0.252
Structural aspect	0.104

5.6 Conclusion

The main objective of this chapter was to validate the research model through verification of measurement and structural model properties. To serve all these objectives, the study successfully applied PLS-SEM path modelling, to estimate the parameters of the research model. First, the measurement model established satisfactory reliability and validity measures. The internal consistency of all the constructs managed to obtain composite reliability values of more than 0.70, thus demonstrated construct reliability. The measurement model also demonstrated satisfactory convergent validity by having AVE value greater than 0.50. Other than that, all indicators loaded on their respective latent constructs and the model passed the discriminant validity test. The findings of the study supported five out of thirteen hypotheses in the structural model.

Overall, the study validated findings on hypothesized relationships among the constructs by applying R^2 , f^2 effect size and Q^2 predictive relevance. The next chapter provides the discussion of the theoretical constructs used in this thesis in relation to the results obtained.



CHAPTER 6

DISCUSSIONS AND CONCLUSIONS

6.1 Introduction

This chapter starts with a synopsis of the study before discussing the findings from the interviews with those who had experience as assessors, as well as those who had experience as participants in ACs, and findings from the survey with 381 respondents who had experience as participants in ACs. In addition, this chapter also presents the contributions of the study, its limitations and recommendations for future research.

6.2 A Synopsis of the Study

The purpose of this study is to understand how adaptation has been used to ensure that the ACs suit the local culture and other requirements. The literature search shows that the Malaysian government has implemented ACs as part of improvement to its staff selection and development since 1998. However, until now there is very limited studies that have been conducted on how the Malaysian government adopts ACs, or how local cultural values influence their design, implementation and acceptance. This study was conducted to fill a big gap in knowledge on how adaptations are made by the Malaysian Government in designing and implementing ACs practice as according to local context and Malaysian cultural settings, and how these local context and culture influence the acceptance of ACs.

Drawing from the conceptual framework, five research questions were developed to achieve the objective of the study as listed below. To answer the research questions and test the hypotheses, a mixed-method approach was employed in the study by adopting a sequential exploratory mixed-method research design with semi-structured face to face interviews and survey as data collection instruments. The objectives are:

- i. To explore the current practices of ACs in the Malaysian public sector.
- ii. To investigate assessors' and participants' perception towards the design, scoring methods, and feedback associated with traditional dimension-based ACs and task-based ACs in Malaysia.
- iii. To explore how cultural dimensions might influence the design and implementation of Malaysian ACs.
- iv. To develop a model of relationship between culture, organisational justice and acceptance of ACs.
- v. To empirically evaluate the hypothesised model of culture, organisational justice and acceptance of ACs using partial least squares path modelling.

This study focuses on two main areas, which were to understand how culture influence the design and implementation of ACs in Malaysian public sector and secondly to explore the acceptance of ACs among participants. Based on prior studies, the model of cultural fits has been used for this study in order to explore how the culture may influence the design and implementation of ACs in Malaysian public sectors. This involves two stages of series of interviews with personnel who have had experience as developer/assessors, and also those who have had experience as participants, in ACs in various ministries in Malaysia.

Following this first study, the second study (survey questionnaires) was conducted with those who have had experience as participants. This second study utilises organisational justice theory in exploring participants' reactions to the fairness of ACs design, implementation and outcomes. By extending the theory of organisational justice, this study also explores the relation of organisational justice and affect after attending ACs. In this regard, a total of 13 hypotheses have been put forward to test the relationships amongst the culture values, distributive justice latent, three categories under procedural justice, and after attending ACs.

6.3 Discussion on Key Findings of the Study

6.3.1 Fundamental of Malaysian Public Sector Assessment Centres Design

Based on literature search related to ACs practice, despite the rapid growth of ACs around the world, very limited study has been conducted to explore the adaptation

of this application in diverse countries. To answer this question, the following section focuses on discussing the fundamental of the design of Malaysian Public Sector ACs.

Literature review suggested that the use of ACs approach was made as part of the effort by the government to reform human resource practice in the public sector by the Chief Secretary of the Government of Malaysia in 1993 (Hamid, 1993). The suggestion was made with the believe that this approach will help in improving selecting or promoting the best candidate.

Feedback from the interview further indicates the reasons for using ACs in Malaysian public sector. Findings showed that by using ACs it helps in identifying the potential candidates with the “right attitude” to work in government agencies. Respondents explained that the “right attitude” is very subjective and cannot be measured alone by examination and interview, therefore, ACs is very useful to identify the most suitable candidates. In ACs, this “right attitude” can be referred to a set of required dimensions that represents a specific behaviours that a person carries out to accomplish the task (Thornton & Byham, 1982), and are identified through a job analysis (Bray, 1982; Heneman & Judge, 2006; Thornton & Rupp, 2006). The interviewees also explained that the “right attitude” is basically referring to the attitude that should be possessed by government servants in serving the public. This attitude must suit to eastern culture and Islamic philosophy which put emphasis on humble, not arrogant, able to work in team, and creative-minded. Findings from this study found that rigorous job analysis was conducted to develop activities to measure the “right attitude” which involved senior and experienced personnel from various public sector agencies in identifying what are the key competencies, design simulations or exercises, and also the criteria for evaluation.

Feedbacks from the interviews show that ACs are very important for staff selection as compared to other purpose like promotion or development. This is due to the view that selection is a gate to be a public servant. Therefore, it is important to select the right candidates. Findings from the survey as reported in Table 5.7 in page 141 supported interview’s findings which shows that majority of respondent involve in AC for selection (81%) and followed by AC for personnel development (14.2%) and finally for promotion (4.8). This is inline with an international survey conducted by Povah (2011) which showed that the most popular uses of AC approach were for external recruitment (57%) and for internal promotion (45%).

6.3.2 The Meet between Sociocultural, Work Culture and Assessment Centres

To explore on how culture influences the design of AC, this study utilised the MCF. As discussed in sub section 2.9.1 in page 52, this model asserts that socio-cultural variables (e.g. individualism/collectivism, power distance, high context communication) may influence an organisation's internal work culture (Aycan et al., 2000), which, in turn, influences HRM practices and thus AC design and implementation. As discussed in section 6.3.1, findings from this study shows that Malaysian is a society that more towards collectivism, high power distance and high communication context. In addition, there are also several other contextual elements like the need of hiring candidates with the "right attitude" as well as religious factor. The following discussion focuses on the discussion how socio-cultural and work culture influence the design of Malaysian Public Sector ACs.

6.3.2.1 More Group than Individual Oriented

The literature search shows that Malaysian society is more group-oriented than individual-oriented, and that Malaysians tend to work much better in a group with a harmonious environment and the spirit of teamwork (Abdullah, 1992; Abdullah & Low, 2001; Blunt, 1988; Hofstede, 1980; House, et al., 1999; Milliman, Taylor, & Czaplewski, 2002).

Quantitative findings in Table 5.9 in page 142 support that Malaysia is a society that prefer to work in group than individual. This finding also supported by interview data which was found that both assessors and candidates agreed that the nature of working in Malaysian government sectors is more focused on group work. Therefore, it is important for them to create and maintain harmony among the team members, so that the group/team can work better together and ultimately perform better.

In the context of designing AC activities, it is found that most of the exercises were designed for a group, rather than being individual activities. For instance, activities such as case studies and problem solving were performed in a group. Therefore, the observations of assessors were focused more on how candidates interact and influence each other, and how they argue and give their opinions during group discussion. As maintaining harmony is important in these group activities, open criticism is not accepted. Instead, adding to the ideas of others is preferable. From the point of view of assessors,

good candidates must know how to cooperate, not compete, with others. For example, it is important for candidates to recognise the ideas of others and later add to these ideas, or offer different opinions.

Related to the above findings, it shows that the design of the activities and evaluation of candidates' performance in the AC are in line with Malaysian culture. The findings show that it is consistent with the scholars' suggestion that leaderless group discussions, role-plays and individual presentations are less likely to be effective in high power distance cultures (Aycan, 2005; Lievens & Chapman, 2009). An empirical study by Lievens, Harris, van Keer and Bisqueret (2003) supports this argument as they found that Japanese supervisors rated a group discussion exercise as a more powerful predictor of future performance. In addition, Lievens et al. (2003) also explained that superiors in collectivist society prefer group-based exercises, which favours team-based decision making. Empirical finding from this study also consistent with another study by Earley (1994) which also showed that group-focused activity was more effective at improving self-efficiency and performance among collectivist (Chinese) participants. In contrast, he found that for individualist (American) participants, individual-focused training was more effective.

6.3.2.2 Power Distance and Respect for Seniority

As discussed in Chapter 2, previous studies related to Malaysian culture shows that Malaysia is a society that scores high in power distance. It means that members of the society and organisations expect, and agree that, power should not be equally shared (Hofstede, 1980; House et al., 1999). Abdullah and Pedersen (2003) explained that Malaysian junior officers and other subordinates are expected to respect the seniority, and acknowledge the greater knowledge and experience, of senior officers, in both written and oral communications.

Findings from this dimension shows Malaysian still more towards a society that high in power distance. However, mean results as presented in Table 5.10 in page 143 shows that religious factor is stronger (mean 3.97) in influencing high power distance as compared to hierarchy factor (mean 3.11). This might give an indicator that high power distance in Malaysia context is no longer because of the power possessed by the superior,

but it is because of the demand of Islam to respect and obey the instruction from the superior.

These quantitative findings also supported by qualitative findings where the assessors and participants during the interview also pointed out that Islamic influences on Malaysian workplace culture is very obvious, especially in government agencies. They explained that the Islamic work ethic emphasizes and encourages hard work, and that engagement in economic activity is perceived as an obligation. They further explained that Islamic workplace culture also stresses cooperation in work and consultation, the latter being seen as a way of overcoming obstacles, or avoiding mistakes. They also mentioned that Islam encourages social relationships at work, and that it is important to have good relationships at work with both equals and superiors. Therefore, given the fact that Malaysia is an Islamic country, it is possible that this Islamic workplace culture will impact the appropriateness of teamwork and expectations in respect to autonomy and involvement in decision-making.

In this context, findings from this study supports that the elements of culture and contextual factors may influence the design of ACs. For instance, feedback from assessors showed that during the workshops and meetings during the development of, or following the AC, it was common to have arguments among assessors. According to young assessors, although their opinions were always considered, they did ultimately follow whatever decisions made by the senior assessors. The same feedback was also received from senior officers. Their feedback regarding this issue was that senior officers normally knew better the current requirements of the stakeholders than did junior assessors. Nonetheless, they stated that information from, and the opinions of, young assessors were also important, especially in designing the exercises and selecting the topics for case studies. This is because younger assessors are often from the same generation as the candidates and, therefore, they might better understand the suitability of the selected topics for case studies and activities. A study by Lanik and Gibbons (2011) support the findings by explaining that in collectivists and high power distance society, different opinions should be expressed indirectly, and it is important to minimise disagreements by resolving them quickly. In contrast, Western societies encourage group members to actively critique the ideas of others to avoid *groupthink* and will discourage individual creativity.

The above-mentioned findings also supported by other scholars who explained that in high power distance cultures the jobs were designed to be performed by groups of workers, and not by individuals (Love, Bishop, Heinisch, & Montei, 1994; Sanchez & Levine, 1999), and therefore it is not appropriate for subordinates to express individual opinions that may override superiors. As a result, there is more likely that employees will let their superiors to make decisions on issues related to them, including what they must do and how it should be done (Abdullah & Pedersen, 2003; Aycan, 2005).

6.3.2.3 Performance Feedback and High Communication Context

Findings from quantitative study as Table 5.11 in page 145 shows that Malaysian is also a society that strong in high communication context. In this regard, high communication context reflects the importance of face saving and the process of giving feedback. Supporting this, the findings from the interviews showed that there was no feedback given to candidates, regardless of whether the AC was used for selection or for promotion purposes. Both assessors and candidates mentioned that the feedback is not that important. The results as to whether a pass or a fail has been achieved in the AC are considered as feedback to candidates. In addition, interviews with assessors reveal that the reasons why there is no feedback to candidates are face saving and the need to maintain harmony and avoid conflict. These findings are inline with the literature review which indicated that it is difficult to provide critical feedback to a collectivistic subordinate, because such communication can result in the loss of face and run counter to the importance placed on harmonious relationships. For example, Fletcher and Perry (2001) explained that it is common in high power distance society if they reluctant to seek information and feedback and asking information and feedback can be considered as challenging the authority. This findings also consistent with Steiner and Gilliland (2001) who explained that for high power distance societies, it might be difficult for individuals of lower status to gain more information as compared to high status.

6.3.2.4 Culture Influence on Dimensions-Based Assessment Centres and Task-Based Assessment Centres

In the current study, findings from interview showed a mix perception towards dimension-based design and task-based ACs design. In the context of ACs for staff recruitment, it is found that the main focus of assessment was on measuring candidates'

attitudes across various activities. Feedback from the interview revealed that most of the ACs activities for staff selection are not necessarily related to the actual jobs as the main focus is to measure attitude rather than measuring knowledge and skills. This is related to the objective of hiring personnel with the “right attitude” as mentioned previously. The main focus of the activities was to observe participants’ attitudes and behaviours in dealing with others in the process of carrying out the task. In this context, more focus was given on evaluating the process and not the end result of the assessment. Reflecting to this feedback, it can be concluded that dimension-based ACs is more suitable for staff selection.

Selecting personnel with the “right attitude” using dimension-based ACs is inline with the trait paradigm in which dimension-based ACs operate. The trait paradigm refers to the situation where human behaviours are relatively stable over time, but differ among individuals (Jackson, Stillman, & Englert, 2010; Lance, 2008; Sackett & Dreher, 1982). For a very long time, measuring stable personalities in dimension-based ACs is the core of early design and application of ACs (Jackson et al., 2010). The main focus in that era was on measuring the overall personality and assessing complex behavioural responses in terms of various subcomponent dimensions (Highhouse, 2002).

The approach of Malaysian public sector by giving more priority on dimension-based ACs in selecting personnel with the “right attitude” is also consistent with a study by Yancey and Watanabe (2009) about culture and leadership. They found that Japanese who have a strongly collectivist culture perceived skills and behaviours as more important than stable personality to leadership.

In addition, Malaysian as a high context culture where a person’s behavioural tendencies are seen as situation-specific (Hall & Hall, 1987). Therefore, assessors among Malaysian public sector ACs may focus on behaviours and skills because this situation-specific condition leads to more complex models of the social world, involving behaviours that may be appropriate in one situation, but not in another and leaders are expected to adjust their behaviour according to these different situations. Therefore, task-based ACs approaches which focus more on getting the job done is not suitable for ACs for selection in Malaysian public sector.

It is however, when AC approach was used for promotion, feedback from the interview shows that ACs were designed more closely to the actual jobs. Feedback from the interviews show that the usage of promotional task-based ACs was due to the assumption that behaviours and attitude of all potential candidates to be promoted to the higher positions already being assessed rigorously during ACs for selection. From the interviews, it is also revealed that during the ACs for promotion, the tasks during ACs activities given were also more frequently related to each other. It was also closer to real working scenarios, for instance by giving another urgent task that had to be completed at the same time period as the original task in a shorter time and limited resources. This also inline with suggestion by Lowry (1997) who mentioned that task-based ACs places more emphasis on within-exercise rating in the job-relevance of exercises.

6.3.2.5 Implication to therotECIAL framework of Model of Cultural Fit

As discussed previously in sub section 2.9.1, this study used theoretical framework model of cultural fit (MCF) to understand how socio-cultural variables may influence Malaysian public sector internal work culture, and therefore, influences AC design and implementation. In terms of socio-cultural, findings from this study confirmed that Malaysia is a society that put emphasis on working in group, and accept the importance of power distance and respect to seniority. Consistent with these cultural dimensions, it is also confirmed that high communication context is important in dealing with others and also in giving feedback.

Findings from the study also showed that the above socio-cultural characteristics have influence on internal work culture. Schein (2004) suggests internal work culture in this model consists of managerial beliefs and assumptions related to the task and the employees. In this context, it is found that internal work culture related to the task for Malaysian public sector is more on working in group, and therefore, creating and maintaining harmony is important. In addition, it is also found that respect to seniority play an important part especially in decision-making considering their greater knowledge and experience.

Another component of internal work culture is related to the employees. It is clearly shows that “the right attitude” is important to work in Malaysian public sector. This attitude is closely related to findings about Malaysian cultural dimensions as

discussed above. It shows the importance to hire someone who can work in team, respect seniors and others, and creative in group decision-making.

As a result from socio-cultural characteristics and internal work culture, findings from this study also explained how both of these factors influence ACs design and implementation. In short, the design and implementation of ACs activities are focused on leaderless group activities with the focus is more on process (e.g. interaction and influence others, argue and give opinion, etc.), and not the final output. However, evaluating the process is only relevant for ACs for selection, and not for ACs for promotion which focus more on the final output from the task. Consistent with high communication context, no feedback are given to participant, which also reflect to face saving, maintaining harmony and to avoid conflict.

6.3.3 Does Culture Matters on Acceptance of Assessment Centres?

To investigate how culture might influence acceptance of ACs among participants, the theory of organisational justice was used. The theory of organisational justice refers as the rules and norms used by an organisation to determine how outcomes are distributed (distributive justice) and also involves the procedures in making decisions (procedural justice), and how the recipients of those outcomes are treated (Bies & Tripp, 1995; Steiner & Gilliland, 2001). Organisational justice is also concerned with what people think is fair and how they react if they believe that the procedures to make the decision, or distribute the resources, are unfair (Steiner & Gilliland, 2001).

To measure how culture might influence acceptance of ACs, eight hypotheses were developed as below:

- H1: Collectivism and relationship preference is negatively related to structural aspect
- H2: Power distance and preference to hierarchy is negatively related to structural aspect
- H3: Collectivism and relationship preference is negatively related to information sharing
- H4: Power distance and preference to hierarchy is negatively related to information sharing
- H5: High context communication is negatively related to information sharing

H6: Collectivism and relationship preference is positively related to interpersonal treatment

H7: Power distance and preference to hierarchy is negatively related to distributive justice

H8: Collectivism and relationship preference is negatively related to distributive justice

6.3.3.1 Strong Influence of Collectivism and Communication Context on Assessment Centres Acceptance

Based on result as Table 5.14 in page 154, out of eight hypotheses, only one hypothesis was significant and supported (H6), which shows that interpersonal treatment was significantly influenced by collectivism and relationship preference. The result also supports that collectivism and relationship preference is positively related to interpersonal treatment. As a collectivist society, it is expected that there will be a positive relation towards interpersonal treatment. This is due to the emphasis on working in group, maintaining harmony, and good interpersonal relationship in this society. This finding is consistent with Steiner and Gilliland (2001) who commented that consistency of treatment and equality is more important in collectivist societies than individualistic society.

The result that shows interpersonal treatment was significantly influenced by collectivism and relationship might explain the importance of maintaining harmony in collectivist society. Feedback from AC candidates during the interviews shows that maintaining harmony, good interpersonal treatment and avoiding conflict is important in performing the actual job. This is because for them, public sector jobs involve dealing with the public, and Malaysian society emphasises respecting others and maintaining harmony. This finding also consistent with Abdullah and Pedersen (2003) who explained that for collectivist societies it is important to maintain of, in order to successfully perform any tasks, and therefore, during the discussions in ACs activities, everyone is encouraged to give ideas and others will normally support each other's ideas. In addition, in Bernthal and Lanik (2008, as cited in Lanik & Gibbons, 2011) study, the findings showed that participants from Asian countries were more focused on relationship building and less on the task that needed to be accomplished. Lanik and Gibbons (2011)

further explained that those who managed to build relationships during the activities may have an advantage in the ACs.

Collectivism and relationship preference also shows significant relationship with information sharing (H3) and distributive justice (H8), however, relationship for both hypotheses are not supported. H3 suggests that collectivism and relationship preference is negatively related to information sharing, nevertheless, the result shows that relationship between both dimensions is positive. This finding shows that Malaysians as collectivist society are willing to share information. Although the information might not come from the authority of ACs, candidates might still get the information from related web sites. To support this statement, an online search on 11 September 2017 found that information related to ACs selection process for Administrative and Diplomatic Officers is widely available online. Three keywords were used and the results show that for the first three pages, result for two keywords (*tips lulus PAC* and *PTD Assessment Centre*) are all relevant to ACs and for *Tips PTD* 26 out of 30 web site are related to ACs.

Table 6.1: Results of Web Search on 11 September 2017

Keywords	Hit Result	Relevancy (3 pages)
Tips PTD	3,710	26/30
Tips lulus PAC (PTD Assessment Centres)	272,000	30/30
PTD Assessment Centre	15,500	30/30

Meanwhile, H8 suggests that collectivism and relationship preference is negatively related to distributive justice, yet the result shows that relationship between both dimensions is positive. This finding might show that collectivism and relationship preference has influenced in decision-making system. In this context, the finding may reflect that Malaysia as a collectivist society put emphasis on maintaining harmony and therefore, the reward is equally distributed. This might give indication that Malaysian prefer to use equality perspective in deciding the outcome of ACs where the distribution of outcomes is given equally to all individuals and merit or performance is not important. Qualitative data also support this finding in which feedback from respondents indicate the importance of equality perspective in decision-making. According to them, although a candidate may have performed well in the activities (equity perspective), but if he or she was too outspoken and display inappropriate behaviour, do not want to cooperate and

give opportunity to others, then they might not be considered suitable for work in the government sector.

Collectivism and relationship preference also shows significant relationship with structural aspect (H1), but relationship for the hypothesis is not supported. H1 suggests that collectivism and relationship preference is negatively related to structural aspect. This finding might show that collectivism and relationship preference has influenced in designing the structural aspect of ACs. This finding also consistent with qualitative data in which according to the respondents, as working is group is important, the structure of the assessments was designed for a group, rather than being individual activities. For example, case studies and problem solving activities were performed in a group and assessors will focus more on how candidates interact and influence each other, and how they argue and give their opinions during group discussion.

Another significant relationship is between high context communication and information sharing (H5). It is however, relationship for this hypothesis is not supported. H5 suggest that high context communication is negatively related to information sharing. This contradict findings may give signal that although in high context communication society might reluctant to ask for information (Abdullah & Pedersen, 2003; Abdullah, 2010; Abu Bakar, Bahtiar, & Mustafa, 2007; Amir, 2009; Salleh, 2005), they can still get information available online.

Although result shows that Malaysian still more towards a society that high in power distance as discussed in sub section 6.3.2.2, hypotheses testing related to power distance and preference to hierarchy and structural aspect (H2), information sharing (H4), and distributive justice (H7) shows that the relationships are not significant and not supported. These findings might also reflect to the result that religious factor is the most influencing factor for high power distance as compared to hierarchy factor, and therefore candidates will accept the design and decision of ACs not because of the power but because of the demand of Islam to respect and obey the instruction.

6.3.3.2 Organisational Justice and Outcome from ACs

This study also aimed to explore organisational justice (procedural and distributive justice) and outcome from attending ACs in the context of attitude towards ACs, affect to individual and recommendation to others. It is expected that positive

outcome from attending ACs will positively influence employee engagement to the organization. To measure the relationship between organisational justice and outcome from attending ACs, five hypotheses were developed as below:

H9: Structural aspect is positively related to attitude towards ACs

H10: Information sharing is positively related to attitude towards ACs

H11: Interpersonal treatment is positively related to attitude towards ACs

H12: Distributive justice is positively related to affect

H13: Distributive justice is positively related to recommendation

Result as Table 5.14 in page 154 shows that only information sharing and attitude towards AC is not significant (H10). This shows that information sharing is not the important dimension in determining the attitude to ACs. Although suggested by the guidelines that every organisation should provide sufficient information to participants prior to the programme, including what decision might be made with the assessment result, the result from this study shows that attitude towards ACs was not influenced by information sharing. This is also contradicted by the suggestion that giving enough information will improve acceptability of ACs and reduce stress of attending the programme (Thornton and Rupp 2006). As discussed previously, Malaysian is a society that adapt high context of communication and as a result they might reluctant to ask for information in order to maintain harmony and to avoid confrontation (Abdullah & Pedersen, 2003; Abdullah, 2010; Abu Bakar, Bahtiar, & Mustafa, 2007; Amir, 2009; Salleh, 2005). In the same time, this situation might also due to available information on ACs on the net for participants to refer as display in Table 6.1 in page 171.

Meanwhile, the other hypotheses are significant and supported. Result for H9 and H11 shows that attitude towards AC was influenced by structural aspect and interpersonal treatment. These findings which show attitude towards AC was influenced by structural aspect and interpersonal treatment were consistent with the view that applicants who find particular aspects of the selection structure invasive might view the organisation as a less attractive. These results is consistent with findings by scholars who found that a positive company image including during the selection process is importance as there are costs related with losing the best candidates (Chapman et al., 2005; Hausknecht et al., 2004; Uggerslev et al., 2012).

Meanwhile findings from the analysis also showed that H12 and H13 were supported which mean distribution justice influenced the affect and recommendation to others. This findings is consistent with previous research by Thornton and Byham (1982) which they found participants believe that ACs measures important managerial qualities, feedbacks received are useful, and that the programme is effective in promoting self-development. They also found that participants who believe with the process and outcome from AC programme are willing to promote this method to their friend. In addition, Anderson and Goltsi (2006) who study effects of this method on participants before participating in the AC, immediately after the AC but before outcome decisions were known, and 6 months after the AC. They found that participation in an AC affects self-esteem, well-being, positive and negative effects, and career exploration behaviour of both accepted and rejected candidates.

6.3.3.3 Cultural Implication on therotecial framework of Organisational Justice

Empirical findings from this study have improved our knowledge on the importance of contextual aspects to understand how organisational justice works in Malaysian public sector.

One of the main important findings showed that for staff selection in Malaysian public sector, equality perspective is more important than equity perspective. This is in line with result that showed Malaysia is more on collectivism and relationship preferences. However, when ACs is used for staff promotion, equity perspective is more vital and task-based ACs is more relevant than dimension-based ACs.

Findings from the study also showed that interactional fairness perceptions is influenced by high communication context and collectivistic cultural values. These findings from the study may strengthen the importance of face saving, social status, harmony, and conflict avoidance, and therefore will increase the relevance of interpersonal treatment for collectivists.

However, in the context of this study, it is also found that power distance and preference of hierarchy, and high communication context is not a strong predictor towards organisational justice as compared to collectivism and relationship preference. In this context, it is most likely shows that for different cultural dimensions which are not included in this study may interact and influence the result. For instance, masculinity

versus femininity dimension which refers to the extent to which stereotypical male values such as high earnings, personal recognition and a challenging career take precedence over 'feminine' preferences. The feminine preference related to good personal relations, employee well-being and satisfaction, consensus orientation, nurturing and sharing, This dimension was not included in this study as previous study showed the score for Malaysia is intermediate and therefore this dimension cannot be determined (Hofstede 1980, 1991), and excluded in this study. It is expected that although Malaysia is a collectivist society, but if Malaysian is more towards masculine, then there will be a stronger preference for equity. In contrast, if Malaysian is stronger towards feminine, then the preference will be more towards equality. Therefore, future study needs to include this dimensions to understand further how culture influence organizational justice.

Finally, this study also showed theoretical framework of organisational justice may explain the reaction towards Malaysian public sector ACs. Findings showed positive outcome related to attitude, affect and recommendation towards ACs. It is however, further study need to be done to understand further effect on attending ACs on trust to organisation and supervisor, satisfaction, commitment, and turnover intentions.

6.4 Contribution of the Research to Assessment Centre Knowledge and Scholarship

Researching cultural influence on ACs practice in Malaysia public sector from assessors and participants' perspectives and experiences contributes to ACs knowledge and scholarship. In particular, this research helps to close the gaps in the literature as discuss in the following paragraph.

Literature search suggests that although ACs approach is highly adaptable to societal, and organisational requirements, it is however very limited research carried out in the field of ACs to support these suggestions. Furthermore, it is found that there is very limited study has been done to explore this issue in Malaysia. In this context, this research has closed the gap by highlights the key features of ACs practice in Malaysian public sector from holistic perspectives which include assessors, participants and developers.

Furthermore, this study also contributes to the knowledge on how culture influence the design and acceptance of ACs in Malaysia context. Findings from this study show that understanding the region-specific approach is very vital to ensure the

effectiveness of ACs as its application from one country or region cannot be generalised to other countries or regions. Hence, this study extends the work on non-Western perspectives on culture and ACs practice by injecting Malaysian notions of ACs, as seen by Malaysians.

In relation to the above, this enquiry in Malaysian culture and ACs practice enriches the current literature on ACs styles of countries in Asia and help Malaysian to understand better and appreciate their practice in ACs. Thus, it will eliminate misunderstandings and disagreements due to a lack of awareness or appreciation of their unique styles of designing and implementing the ACs.

In term of developing the ACs, the findings also generate important insights for those in charge of ACs in Malaysia public sectors and give them opportunities to design and develop more appropriate ACs programmes. In addition, the results help developer of ACs from different nations to comprehend the Malaysia ACs practice, and thus may avoid stereotyping and bias related to differences in aspects such as culture, history, social, political, and economics.

Specifically, this study found that the implementation of ACs follow most of the suggestion by the ACs guideline. However, in the context of giving feedback, due cultural influences, there is no feedback given to the candidates. The main reason is because of face saving, maintain harmony and to avoid conflict. Therefore, in the context of giving feedback, it is important for Malaysian government to develop feedback mechanism which suitable with Malaysian context including method and what feedback should be given.

Given the fact that the evidence is insufficient to answer the research questions for this study, this study employed a mixed-method approach. This is also complements the need to employ varieties of research methods in ACs research and suggestion that research related to culture is difficult because culture by its definition is not standardised and differs from one society to another. A rigorous approach also adapted for quantitative study where structural equation modelling techniques is also used alongside the theoretical model including confirmatory factor analysis and path analysis. These techniques are distinguished by, firstly, their ability to estimate multiple interrelated dependence relationships through series of structural equation than separate equations,

and secondly, their ability to represent unobserved concepts in these relationships and account for measurement errors in the estimation process. Therefore, this study is able to estimating the theoretical model as a whole. By using structural equation modelling, it is also easier to estimate the goodness-of-fit for different alternative models, so that a better-fitted one can be identified. Further, confirmatory factor analysis can be applied to the competency instrument to provide further support for modifications or confirmation of the factor pattern within the instruments.

In term of contributions to theory, this study has applied and tested the model of cultural fit (MCF) by focusing on the issue of cultural influences internal work culture in Malaysian public sectors and ACs practice. Findings from the study support that MCF model to be the most comprehensive model for studying how culture influences management practices. The application of this model on Malaysian context as one of theoretical basis for this study has showed the complexity of organisational processes. However, the model was only tested for qualitative study, therefore, it is suggested for the future study to test the influence of culture on ACs practice using quantitative method.

This study also managed to extend our knowledge on candidates' reactions to ACs practice which involve the process and procedure they faced during the ACs, and also the outcome from the ACs using organisational justice theory. Generally, the current study shows that collectivism and relationship preference is the most influence one towards acceptance of ACs practice compared to high context communication, and power distance and preference to hierarchy. From the context of the procedural justice component, it shows that information sharing dimension is the least one that will influence the view of fairness of the ACs procedure. In the context of distributive justice, this study also contributes to our knowledge the important of equality perspective in deciding the outcome from ACs. This finding is important as western countries focus more on equity perspective in deciding the distribution of outcome. In addition, the current research also extends the application of theoretical model of organisational justice by evaluating how this model influence the participants in the contexts of their attitude, affect and whether they would recommend others to attend the ACs. Interestingly, results from this study show that except for information sharing, other dimensions of organisational justice significantly influence the acceptance of ACs practice. This might

show that the candidates view ACs as useful and therefore will give positive image to the selection system.

6.5 Limitation of the Study

This research focuses on the experiences of implementation of ACs in Malaysian public sector. Unlike most of the research to date, it sets out to explore what is experienced and perceived by assessors and participants in private sector. This research is time-consuming to collect, and even more time-consuming to analyse. Therefore, this study focuses more on application of ACs for selection of Diplomatic and Administrative Officers.

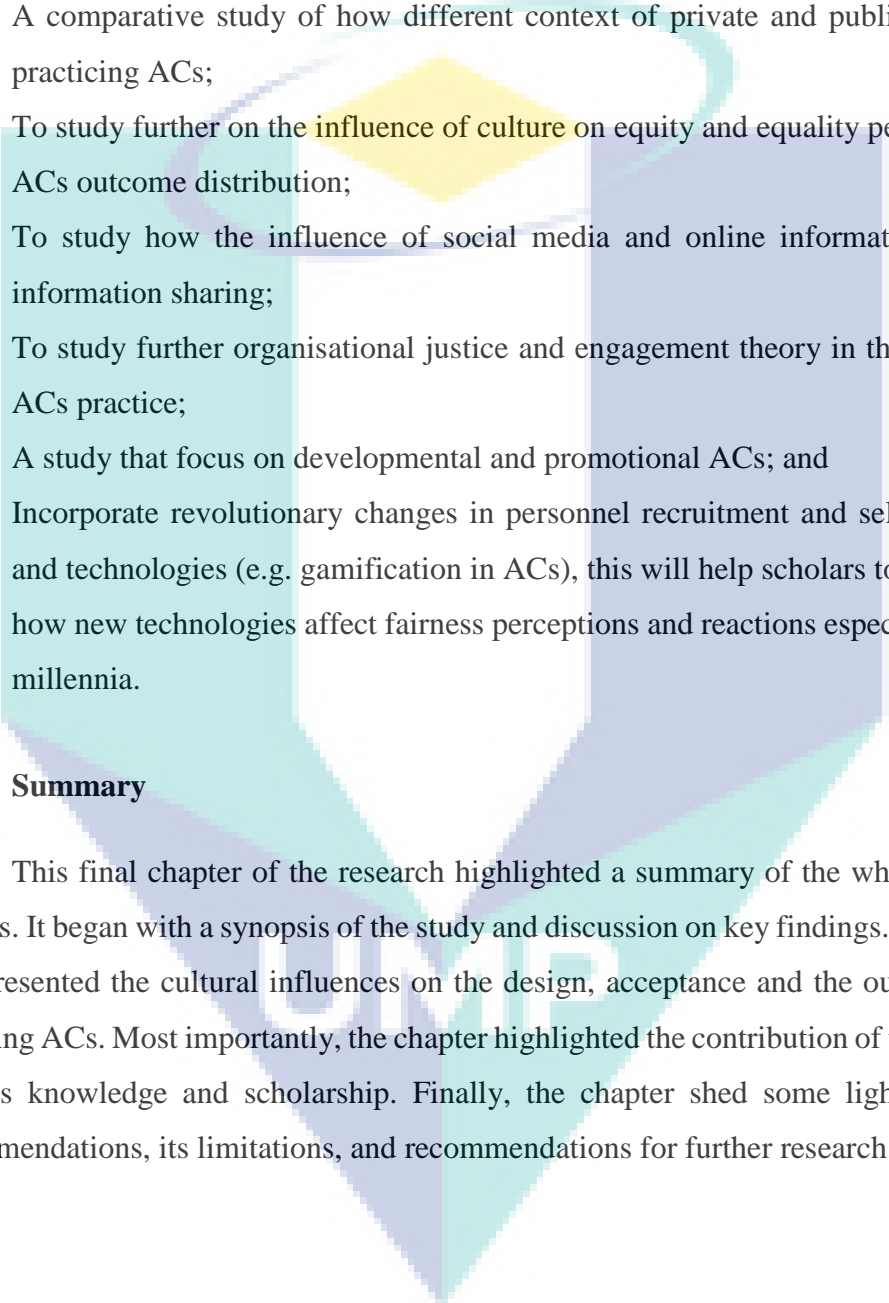
Majority of the respondents among ACs participant of this study comes from those who experience ACs for selection. Therefore, the understanding of the participants' perspective may be disadvantaged by the absence of information from participants in developmental ACs and promotional ACs.

This study was conducted within a limited period of time, as required by the doctoral programme. The interview process with developers, officer in charge, and assessors and with participants were a time-consuming activity, which discouraged prospective participants from participating, and thus caused difficulties in finding subjects. In addition, the methodology used for this study were interview and questionnaire. This approach may be disadvantaged by lacking of observing the actual implementation of ACs.

6.6 Recommendation for Future Research

This thesis has reported on the particular issues regarding culture and Malaysian public sector ACs practice from the perspectives and experiences of assessors and participants. Based on experience in conducting this study, below are some recommendations for further research regarding the issues pertaining to ACs in Malaysia to look into:

- i. The development of a Malaysian ACs Guideline that focuses on helping developer in designing and executing an AC, specifically on the method on giving feedback to participants;

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- ii. The influence of Islamic Work Culture on the design and acceptance of ACs;
 - iii. To adapt/develop the most useful and appropriate approaches which combine both Islamic principles and contemporary ACs practice;
 - iv. A comparative study of the inter-cultural between different nation and its implication to ACs;
 - v. A comparative study of how different context of private and public sectors in practicing ACs;
 - vi. To study further on the influence of culture on equity and equality perspective in ACs outcome distribution;
 - vii. To study how the influence of social media and online information towards information sharing;
 - viii. To study further organisational justice and engagement theory in the context of ACs practice;
 - ix. A study that focus on developmental and promotional ACs; and
 - x. Incorporate revolutionary changes in personnel recruitment and selection tools and technologies (e.g. gamification in ACs), this will help scholars to understand how new technologies affect fairness perceptions and reactions especially among millennia.

6.7 Summary

This final chapter of the research highlighted a summary of the whole research process. It began with a synopsis of the study and discussion on key findings. The chapter also presented the cultural influences on the design, acceptance and the outcome from attending ACs. Most importantly, the chapter highlighted the contribution of this research to ACs knowledge and scholarship. Finally, the chapter shed some light on policy recommendations, its limitations, and recommendations for further research.

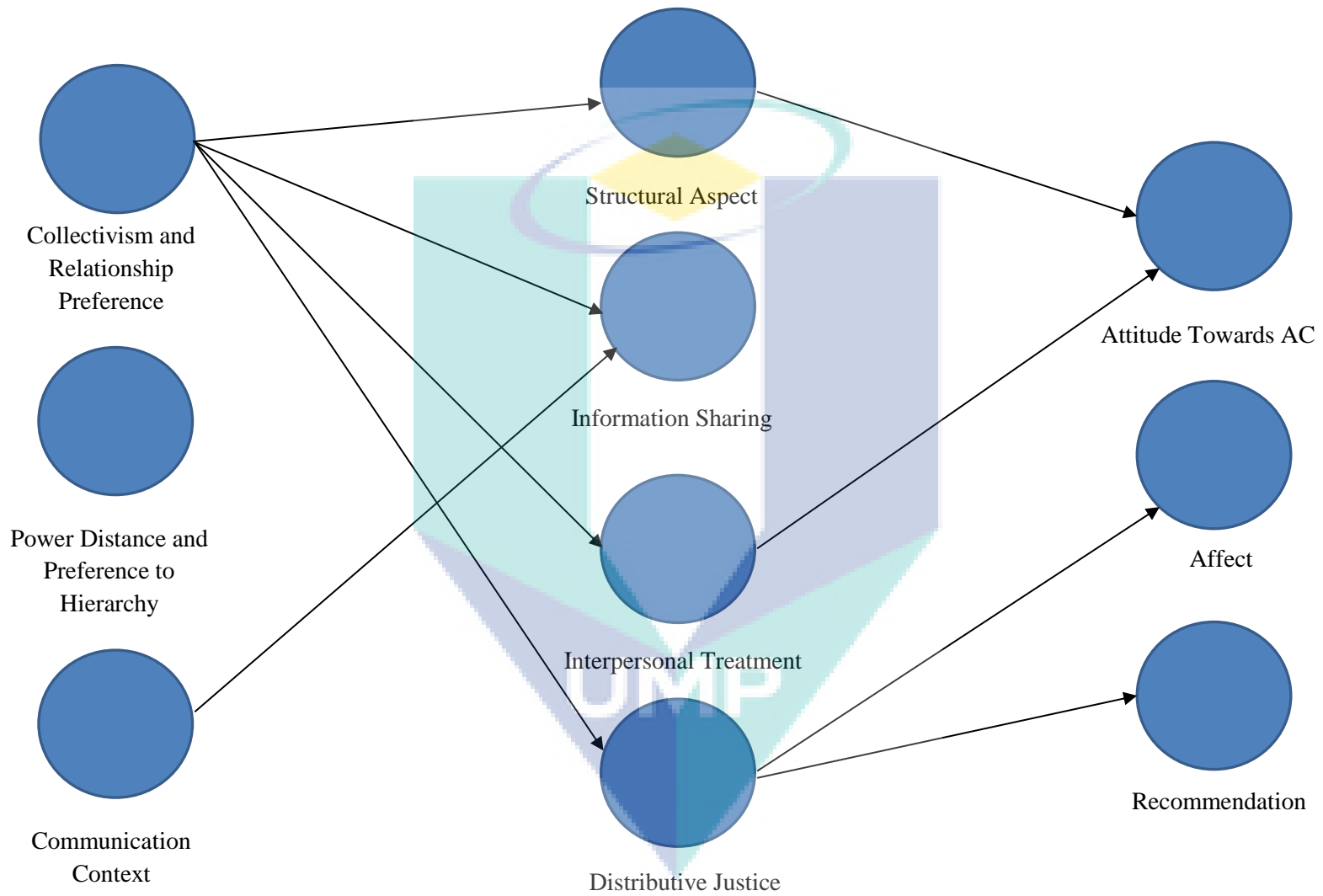


Figure 6-1: Suggested Model for Future Research

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APPENDIX A
PUBLICATION AND CONFERENCES RELATED TO THIS STUDY

Conference

Ahmad, M. H., Ab Hamid, M.R., Azizan, N. R, Tahir, I. R. (2015). *Cultural Influences on Assessment Centre Practices*. Poster presented at the Creative, Innovation, Technology & Research Exposition (CITREX), Universiti Malaysia Pahang.

Ahmad, M. H., Ab Hamid, M.R., Azizan, N. R, (2015). *Partial Least Squares Path Modelling of the Impact of National Cultures on Organisational Justice of Malaysian Assessment Centre*. Paper presented at the Seminar Kebangsaan Institut Statistik Malaysia ke-9 (SKism IX), Universiti Kebangsaan Malaysia.



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APPENDIX B

INDICATIVE INTERVIEW QUESTIONS TO ASSESSORS

General Information

1. What is the main objective of the AC that currently used in your organisation? Can you elaborate further about this AC?

Development of the AC

2. Was this AC developed by internal experts, consultant, or adopted from any existing ones?
3. How has this AC procedure been tailored to needs of your organisation?

Job Analysis and Job Requirements/Dimensions

4. Was there a job analysis prior to specifying the job competencies/dimensions and the exercises used in this AC? Can you describe the process involved in doing the job analysis?
5. How many job competencies/dimensions are observed and evaluated per exercise and per AC?
6. What are job competencies/dimensions being observed and evaluated in each AC? Do you experience any difficulties in evaluating those job requirement/dimensions? Could you please share your experience?

Exercises

7. How many exercises are used in this AC procedure? Can you name the exercises or simulations used?
8. Do the exercises specifically developed to your organisation needs?
9. Are the exercises separate and distinct from each other, or related and integrated?
10. For group exercises, are these conducted with a designated leader? Why or why not?

Participants

11. What is the average number of participants for each AC?
12. On what basis is the participants of this AC selected?

Assessors

13. What is the ratio of participants and assessors?
14. Can you explain the criteria considered in selecting the pool of assessors?
15. What groups are being represented by the assessors?
16. What are the methods/aids used by assessors in evaluating behaviour? Could you explain further the method used?

Assessor Training

17. Is there any training for assessors? If yes, can you describe further (e.g. how long is the assessors training, the main contents, methods used in the training, who are the trainers)?
18. Is there any evaluation on the qualities of observation and rating skills of each assessor after the assessor training?

Information to Participant

19. Do participants receive any information prior to the AC procedure? If yes, what kind of information is provided to the participants?

Data Integration

20. Can you explain the process of data integration (e.g. assessor discussion to consensus, statistical aggregation, combination of discussion and statistical)?

Feedback

21. Could you please describe the process involved in giving feedback (e.g. when and who give the feedback, information included in the feedback, form of feedback such as oral, written, or both).
22. Does the feedback only focus on the candidates' performance in their job competencies/dimensions, or also on candidates' behavioural responses within exercises?
23. Could you please share your experiences during the process of giving feedback?

Evaluation of the AC

24. Was there a systematic evaluation of this AC? If yes, could you please describe the evaluation process?
25. Based on the evaluation, does your organisation revise this AC? If yes, how often has the AC procedure been revised systematically in the past?
26. Is there an evaluation of participants' reactions? If yes, what criteria are the participants asked to evaluate (e.g. fairness, usefulness of the AC, communication of results, feelings/stress/anxiety during the AC procedure, and accuracy of the feedback)?
27. Does your organisation have any manual or written documents regarding this AC? If you have this, could you please give me a copy?

Culture and ACs

28. How would you describe your national culture in broad terms?
29. How would you describe the culture of your organisation (e.g. informal values, beliefs, norms held by members of the organisation)?
30. Do you see any link between national culture, culture of your organisation and the AC practice? Please elaborate

APPENDIX C

INDICATIVE INTERVIEW QUESTIONS TO PARTICIPANTS

Information to Participant

1. What kind of information, if any, was provided to you prior to the AC procedure?
2. Did you feel that the information was useful in helping you perform better in the assessment programme? Please explain.

Exercises

3. Did you have any prior knowledge of the methods/aids used by assessors in evaluating participant behaviour?
4. Could you please share your experiences in performing the individual and group exercises in the assessment centre?
5. How realistically did the AC exercises capture the challenges you faced as an Administrative and Diplomatic Officer in real-world situations?

Feedback

6. Could you please describe the process involved in giving feedback (e.g. when and who give the feedback, information included in the feedback, form of feedback such as oral, written, or both).
7. Does the feedback only focus on your performance on job competencies/dimensions, or also on your behavioural responses within exercises?
8. Could you please share your experiences of giving feedback regarding your performance in the AC?

Evaluation of the AC

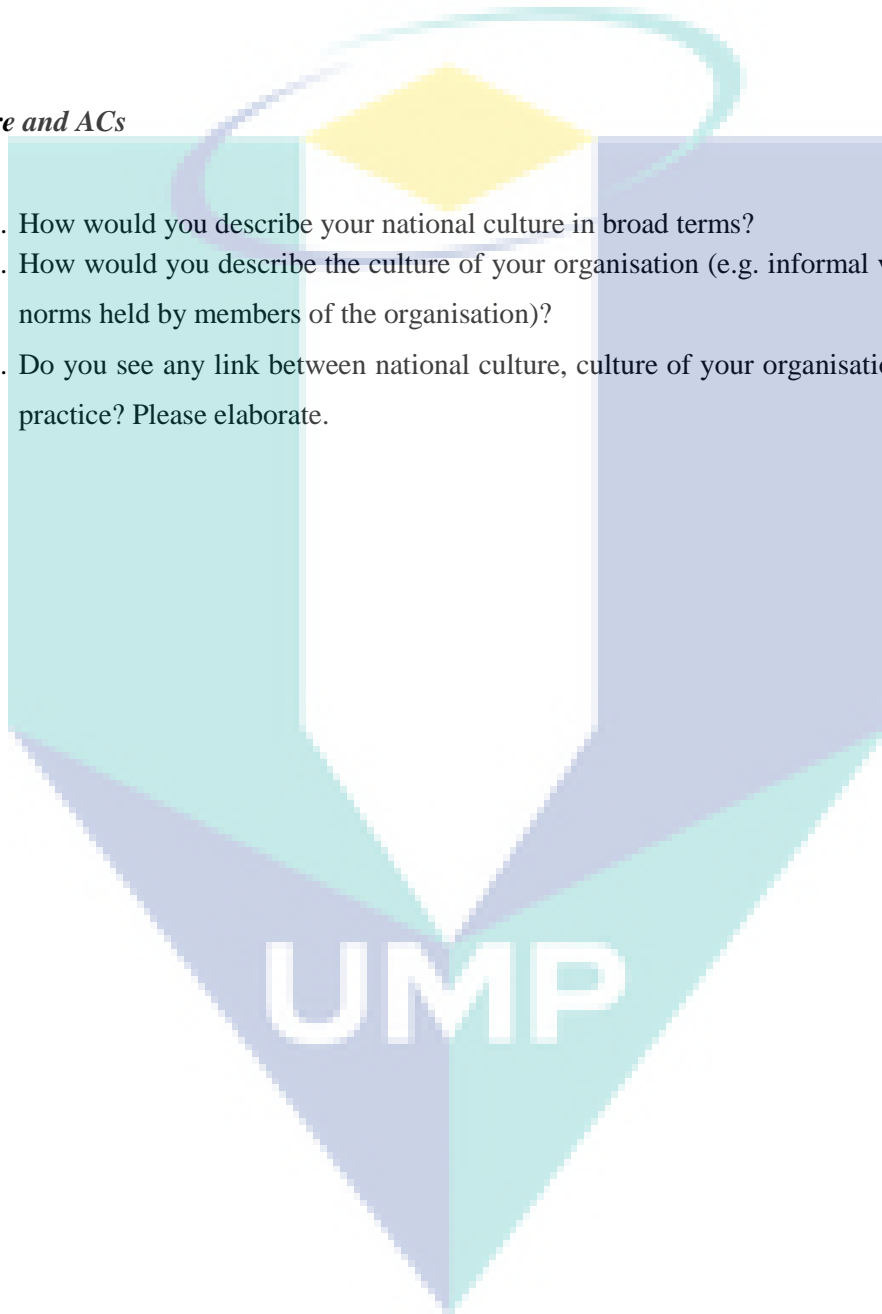
9. Was there an evaluation of participants' reactions? If yes, what criteria were you asked to evaluate (e.g. fairness, usefulness of the AC, communication of results, feelings/stress/anxiety during the AC procedure, and accuracy of the feedback)?

Fairness

10. Was the assessment process transparent? Was it credible?

Culture and ACs

11. How would you describe your national culture in broad terms?
12. How would you describe the culture of your organisation (e.g. informal values, beliefs, norms held by members of the organisation)?
13. Do you see any link between national culture, culture of your organisation and the AC practice? Please elaborate.



APPENDIX D

INDICATIVE INTERVIEW QUESTIONS TO SENIOR OFFICER

1. Sebagai permulaan mungkin boleh tuan terangkan sejarah AC di Malaysia.
2. Berdasarkan maklumbalas yg saya terima setakat ini, saya dapati penggunaan kaedah AC semakin berkembang pesat di public sector, dan bukan sekadar untuk lantikan PTD. Saya juga dimaklumkan SPA akan kembangkan ke lebih 90 skim yg lain secara berperingkat. Apa komen tuan?
3. Setakat ini maklumbalas yang diterima menyokong kajian literature mengenai budaya masyarakat Malaysia dan pelaksanaan AC. Antaranya seperti:
 - i. Peserta tidak berminat untuk mendapatkan maklumbalas prestasi semasa AC (high power distance)
 - ii. Panel tidak memberi maklumbalas bagi mengelakan informasi mengenai AC diketahui oleh orang lain (high context in communication)
 - iii. Peserta dan panel lebih cenderung kepada aktiviti berkumpulan (collectivism)Boleh tuan komen pekara ini.
4. Salah satu isu yang dibangkitkan oleh peserta dan juga panel ialah kriteria pemilihan panel. Mereka baik yang dimiliki oleh panel akan meningkatkan ketelusan dalam pelaksanaan AC. Tetapi kriteria ini agak kabur bagi mereka, apa komen tuan?
5. Kita masih baru dalam pelaksanaan AC dan saya dapati banyak cadangan dari guidelines tidak diikuti, apa pandangan tuan?
6. Salah satu alternative dalam rekabentuk AC adalah penilaian berdasarkan tugas, kajian menunjukkan ianya lebih mudah berbanding penilaian terhadap trait/dimension/kompetensi. Tetapi maklumbalas yg saya terima, menunjukkan peserta dan panel masih cenderung kepada kaedah tradisional. Saya mengandaikan nilai masyarakat Malaysia yg menekankan attitude lebih utama dari kemampuan melaksanakan tugas (boleh dipelajari). Apa komen tuan?
7. Ada yang memberi maklumbalas, sebagai pejawat awam kita perlu menjadi askar yang baik. Ada juga yg menyatakan kita perlu menjadi yes man yang kreatif. Isu sebegini mempengaruhi penilaian oleh panel. Saya boleh kaitkan dengan high power distance antara superior dan subordinate yang terdapat di Malaysia. Apa komen tuan?
8. Apa pandangan tuan mengenai cabaran dan masalah dalam pelaksanaan AC
9. Apa pandangan tuan untuk memantapkan pelaksanaan AC mengikut citarasa Malaysia.

APPENDIX E: QUESTIONNAIRE

A STUDY ON MALAYSIAN PUBLIC SECTOR ASSESSMENT CENTRES: CULTURAL FACTORS AND THEIR EFFECTS ON THE DESIGN AND ACCEPTANCE

Tuan/Puan,

Penyelidikan ini yang dilakukan untuk mengkaji pelaksanaan *assessment centre* di Malaysia, sebagai sebuah negara sedang membangun di Asia Tenggara. Ianya bertujuan untuk menilai bagaimana nilai budaya nasional mempengaruhi rekabentuk dan pelaksanaan *assessment centre* (AC) dari pandangan penilai dan juga peserta.

Topik ini dipilih kerana ia mungkin berguna untuk meningkatkan pemahaman bagaimana pelaksanaan *assessment centre* dari perspektif budaya nasional yang wujud di Malaysia.

Soalselidik ini akan mengambil masa sekitar 15 - 20 minit untuk diselesaikan.

Maklumat peribadi tidak akan ambilkira untuk analisis soalselidik ini. Kerahsiaan dijamin, dan anda tidak akan diminta untuk memberikan nama atau alamat. Setiap data yang dikumpul dari peserta akan kekal sulit. Identiti semua peserta juga akan kekal rahsia. Hanya penyelidik dan dua penyelia sahaja akan mempunyai akses kepada data yang dikumpul.

Anda tidak semestinya menerima pelawaan ini. Penyempurnaan soalselidik berikut menandakan persetujuan anda dan anda mempunyai hak untuk tidak menjawab soalan tertentu.

Terima kasih atas penglibatan anda.

Mohd Hanafiah bin Ahmad

LATARBELAKANG

Jantina

- Lelaki
 Perempuan

Umur

- 24 tahun dan ke bawah
 25 ke 35 tahun
 36 ke 45 tahun
 46 ke 55 tahun
 56 tahun dan ke atas

Kedudukan jawatan (sila pilih kedudukan jawatan anda dan nyatakan nama jawatan anda di ruang yang disediakan)

- Peringkat pengurusan atasan _____
 Peringkat pengurusan pertengahan _____
 Peringkat pengurusan operasi _____
 Lain-lain _____

Gred Jawatan

- 41
 44
 48
 52

Jabatan / Agensi

Soalan seterusnya akan meminta pendapat anda tentang pelaksanaan *assessment centre* dan pengalaman anda sebagai peserta.

Jika anda pernah terlibat dengan lebih dari satu *assessment centre* di organisasi anda, sila PILIH HANYA SATU SAHAJA dan KAITKAN SEMUA soalan berikut dengan *assessment centre* terbabit.

Jika anda ingin menjelaskan lebih dari satu *assessment centre*, sila isi soalselidik yang lain.

- Assessment centre* bagi **LANTIKAN PEGAWAI**
- Assessment centre* bagi **KENAIKKAN PANGKAT**
- Assessment centre* bagi **PEMBANGUNAN STAF**

Berapa lamakan tempoh *assessment centre* tersebut?

- 1 hari
- 2 hari
- 3 hari
- Lebih dari 3 hari

Sila jawab soalan-soalan berikut (tandakan ✓) dengan menggunakan skala di bawah:

5	4	3	2	1
Sangat Setuju	Setuju	Neutral	Tidak Setuju	Sangat Tidak Setuju

MAKLUMAT YANG DIKETAHUI	1	2	3	4	5
Saya mempunyai maklumat yang cukup mengenai format <i>assessment centre</i> .					
Saya tahu apa yang diperlukan di dalam <i>assessment centre</i> .					
Saya diberi maklumat yang cukup untuk setiap aktiviti.					

PERKAITAN DENGAN TUGAS	1	2	3	4	5
Ianya adalah jelas kepada siapapun bahawa <i>assessment centre</i> adalah berkaitan dengan tugas/jawatan yang dinilai.					
Seseorang yang mendapat skor yang baik di <i>assessment centre</i> akan menjadi pegawai yang baik.					

KESESUAIAN AKTIVITI	1	2	3	4	5
Kegiatan / aktiviti penilaian adalah sesuai.					
Kegiatan / aktiviti mencerminkan jenis tugas yang diperlukan pada pekerjaan yang sebenar.					
Proses penilaian mengukur aspek yang relevan untuk jawatan yang sedang dinilai..					

PELUANG UNTUK MENUNJUKAN KEMAMPUAN	1	2	3	4	5
Saya berpeluang untuk menunjukkan kemampuan dan keupayaan saya melalui <i>assessment center</i> .					

KONSISTENSI	1	2	3	4	5
Kaedah <i>assessment centre</i> dilaksanakan secara samarata kepada semua calon.					

KETERBUKAAN	1	2	3	4	5
Pentadbir <i>assessment centre</i> menjawab semua soalan secara jujur.					
Pentadbir <i>assessment centre</i> tidak menyembunyikan sebarang maklumat semasa proses penilaian.					

LAYANAN	1	2	3	4	5
Pentadbir <i>assessment centre</i> bertimbangrasa sepanjang proses penilaian.					
Pentadbir <i>assessment centre</i> melayan calon dengan hormat semasa proses penilaian.					
Panel penilai berperilaku secara profesional.					
Penilai, pentadbir, dan kakitangan sokongan adalah ramah.					
Kemudahan yang digunakan membolehkan saya untuk berasa selesa selama menjalani kegiatan <i>assessment centre</i> .					

KOMUNIKASI	1	2	3	4	5
Saya selesa untuk bertanya sebarang soalan sekiranya ada.					
Saya selesa untuk menyatakan pandangan dan keperhatian saya semasa penilaian <i>assessment centre</i> .					
Komunikasi sebelum penilaian berlaku dengan jelas.					

DISTRIBUTIVE JUSTICE	1	2	3	4	5
Keputusan akhir menggambarkan dengan tepat bagaimana prestasi saya di <i>assessment centre</i> .					
Saya berhak mendapatkan hasil keputusan yang diterima.					
<i>Assessment center</i> dengan adil telah mencerminkan kemampuan saya untuk melakukan pekerjaan.					

KESAN	1	2	3	4	5
Saya sangat seronok semasa menjalani <i>assessment centre</i> .					
Saya berhasrat untuk mengikuti program <i>assessment centre</i> pada masa depan.					
Perilaku saya dalam aktiviti penilaian tidak jauh berbeza dari apa yang berlaku dalam situasi yang sebenar.					
Prestasi saya dalam program tersebut tidak terganggu oleh perasaan stress atau tekanan.					

SYOR	1	2	3	4	5
Berdasarkan pengalaman saya di <i>assessment centre</i> , saya akan mendorong orang lain untuk mengikuti program penilaian tersebut.					
Secara keseluruhan, program <i>assessment centre</i> adalah pengalaman yang mencabar tetapi berharga.					

PELUANG PERTIMBANGAN SEMULA	1	2	3	4	5
Calon-calon boleh memohon keputusan <i>assessment centre</i> mereka dinilai semula.					
Saya diberi peluang untuk menilai semula keputusan <i>assessment centre</i> .					

Maklumbalas akan berkesan jika disampaikan oleh:

- Panel Penilai Penyelia
- Staf Sumber Manusia
- Pakar luar
- Ahli Psikologi
- Lain-lain, sila nyatakan _____

MAKLUMBALAS TERHADAP PRESTASI SEMASA ASSESSMENT CENTRE	1	2	3	4	5
Saya tahu bila saya akan menerima maklumbalas tentang prestasi saya semasa <i>assessment centre</i> .					
Saya tidak selesa untuk membincangkan prestasi saya demi menjaga air muka					
Maklumbalas positif akan menyebabkan rasa cemburu kepada calon-calon lain.					
Maklumbalas negatif kepada calon akan menimbulkan konflik dan menjejaskan keharmonian.					
Maklumbalas adalah tidak penting disebabkan adalah tanggungjawab calon-calon untuk mencari kekuatan dan kelemahan mereka.					
Jika maklumbalas perlu diberikan, ia harus dibuat secara individu dan tidak dalam kumpulan.					
Jika maklumbalas perlu diberikan, ianya perlu secara bertulis dan bukan lisan.					

SIKAP/PENERIMAAN TERHADAP ASSESSMENT CENTRE	1	2	3	4	5
Saya berpendapat <i>assessment centre</i> adalah cara yang adil untuk menentukan kemampuan calon.					
<i>Assessment centre</i> memberi refleksi yang baik tentang apa yang seseorang boleh lakukan dalam pekerjaan sebenar.					
<i>Assessment centre</i> adalah cara yang baik untuk memilih calon.					
Kaedah <i>assessment centre</i> adalah cara yang adil bagi calon-calon dari kumpulan etnik yang berbeza.					
Kaedah <i>assessment centre</i> adalah adil untuk calon lelaki dan perempuan.					

SOALSELIDIK MENGENAI DIMENSI BUDAYA

Ini adalah bahagian terakhir soalselidik, soalan berikut adalah berkaitan dengan mengeksplorasi nilai-nilai budaya yang lazim di Malaysia.

Mengapa kajian ini mengukur nilai-nilai budaya?

- Umumnya, perbezaan budaya antara negara mungkin mempunyai kesan terhadap reaksi calon-calon terhadap strategi dan amalan sumber manusia. Namun begitu, sangat sedikit perhatian diberikan kepada perbezaan budaya dan reaksi terhadap amalan *assessment centre*.
- Kami berhasrat untuk menerokai bagaimana nilai-nilai budaya masyarakat Malaysia dapat mempengaruhi persepsi terhadap *assessment centre* dan bagaimana ianya berbeza dengan reaksi calon-calon di negara-negara Barat.

Sila baca dan nilai kenyataan berikut dan beri maklumbalas anda (sila tandakan ✓) berdasarkan budaya anda dan apa masyarakat di sekitar anda fikir dan lakukan.

5	4	3	2	1
Sangat Setuju	Setuju	Nutral	Tidak Setuju	Sangat Tidak Setuju

Kemahiran sosial (ramah, bersifat akomodatif, dll) lebih penting daripada kemahiran kognitif (berfikir kritis, penyelesaian masalah, dll).	1	2	3	4	5
Hubungan yang baik adalah penting dalam memudahkan sesuatu kerja diselesaikan.	1	2	3	4	5
Ianya penting untuk mengekalkan suasana yang harmoni dari cuba untuk menukarkannya.	1	2	3	4	5
Sukar untuk bersahabat dengan seseorang yang kita tidak bersetuju dengannya.	1	2	3	4	5
Seseorang akan terdorong untuk melakukan sesuatu perkara demi menjaga nama baik kumpulan (keluarga, pasukan).	1	2	3	4	5
Apabila melakukan sesuatu kesalahan, seseorang akan prihatin dengan apa yang orang lain katakan tentang mereka.	1	2	3	4	5
Kerjasama, pencapaian prestasi kumpulan dan kesetiaan lebih diutamakan dari pencapaian peribadi.	1	2	3	4	5
Seseorang akan ragu-ragu dalam memberikan pendapat mereka sebelum mengetahui apa yang orang lain katakan, fikirkan, atau rasakan.	1	2	3	4	5

Etika di tempat kerja seharusnya dibentuk berdasarkan ajaran agama.	1	2	3	4	5
Kewajipan pada agama perlu dipenuhi, walaupun akan mengorbankan produktiviti.	1	2	3	4	5
Bebanan tugas dan tanggungjawab perlu diagih mengikut kekananan dan usia.	1	2	3	4	5
Pekerja bawahan perlu menerima arahan dari pegawai atasan tanpa persoalan.	1	2	3	4	5
Seseorang memberi fokus pada makna yang tersirat dan komunikasi nonverbal berbanding "apa yang anda lihat adalah apa yang sebenarnya berlaku" kerana terdapat banyak perkara yang terselindung sebaliknya.	1	2	3	4	5
Apabila memberi maklumbalas, ianya perlu dibuat secara tidak langsung dan tidak begitu khusus.	1	2	3	4	5

Terima kasih atas luangan masa untuk terlibat dengan kajian ini.

**APPENDIX F
COMMON METHOD BIAS**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	15.210	26.684	26.684	15.210	26.684	26.684
2	3.468	6.084	32.768			
3	3.022	5.302	38.070			
4	2.579	4.525	42.595			
5	2.022	3.548	46.142			
6	1.656	2.905	49.047			
7	1.425	2.499	51.547			
8	1.386	2.432	53.978			
9	1.312	2.301	56.280			
10	1.227	2.153	58.433			
11	1.163	2.041	60.473			
12	1.086	1.905	62.379			
13	1.069	1.876	64.255			
14	1.007	1.767	66.022			
15	.983	1.725	67.747			
16	.903	1.585	69.331			
17	.863	1.513	70.844			
18	.835	1.465	72.310			
19	.813	1.427	73.736			
20	.769	1.350	75.086			
21	.737	1.294	76.380			
22	.713	1.251	77.631			
23	.665	1.167	78.798			
24	.656	1.151	79.950			
25	.638	1.120	81.069			
26	.602	1.057	82.126			
27	.580	1.018	83.144			
28	.557	.977	84.121			
29	.534	.937	85.058			
30	.510	.895	85.953			

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
31	.492	.863	86.816			
32	.472	.829	87.644			
33	.451	.791	88.436			
34	.433	.760	89.195			
35	.421	.739	89.934			
36	.401	.703	90.637			
37	.376	.660	91.297			
38	.361	.633	91.930			
39	.358	.627	92.557			
40	.341	.599	93.156			
41	.340	.596	93.753			
42	.317	.556	94.309			
43	.300	.526	94.835			
44	.288	.506	95.341			
45	.286	.501	95.842			
46	.275	.482	96.324			
47	.262	.459	96.783			
48	.246	.431	97.214			
49	.235	.413	97.627			
50	.205	.360	97.987			
51	.191	.336	98.323			
52	.183	.321	98.643			
53	.176	.308	98.952			
54	.164	.288	99.240			
55	.157	.276	99.515			
56	.140	.245	99.760			
57	.137	.240	100.000			

Extraction Method: Principal Component Analysis.