

CHAPTER 4

RESEARCH METHODOLOGY

Introduction

Chapter Four reports the research design that includes a description of the research method used, the development of the questionnaire, the research samples, the measures used, the pilot study, the data collection procedures and the data analyses techniques.

4.1 The Research Design

Cooper and Emory (1995) have emphasised on the importance of developing a good research design and they showed how to achieve the research objectives. Grunow (1995) also reiterated the importance of research design in improving empirical research and theory building in organization studies. An appropriate research design would facilitate a robust research process and ensure that all the research questionnaires and data are answered / addressed by the research findings.

4.1.1 The research method

This is a cross-sectional survey design. Data was gathered by using questionnaires that were conveniently distributed among the agreed participating organizations. The choice of using questionnaire survey was made due to the advantage that the researcher would be able to pool information from a large sample over a relatively short period of time. In this study, the parameters of the research are governed by a number of considerations. The first consideration was that the intended study must

have a realistic and achievable objective. The study has chosen psychological empowerment, talent engagement, job satisfaction and talent outcomes as the focus of the study because of their relatedness to broad concerns with the evolving human capital context. This is more so with the dynamic changing human capital landscape in Malaysia that includes the mobility of workforce and Gen Y employees who are more information and communication technology savvy (Sidhu, 2011). Secondly, the researcher had to ensure that the proposed objective must be quantifiable and therefore measurable. This is addressed by using the tested measures of Spreitzer (1995), Saks (2006) and Schaufeli et al. (2002). Relevancy of the research was the third consideration whereby the outcome of the study would benefit and adds value to the growing emphasis on optimising the strength of our talents, specifically in Malaysia. The study would also contribute to the increasing interest in talent engagement matters among the Malaysian public generally and the academicians specifically. The fourth consideration was the amount of interest and time that the researcher could invest to conduct the study. This last consideration also includes ascertaining if the research reflects the talent engagement among the targeted sample which is the Malaysian GLC that are currently undergoing the GLC Transformation Programme. According to the mid-term progress review report on this GLC transformation initiative by the Putrajaya Committee on GLC High Performance (2009), the performance management implementation effectiveness 2008 survey indicated an overall level of engagement among the GLC employees at 79 percent. The report adds that the result was benchmarked against the global high performance norm of 83 percent.

4.1.2 Research sample

This study focuses on the GLC that are located in the capital city of Kuala Lumpur and the state of Selangor. The research samples were taken from the GLC because they are an integral part of the Malaysian economic engine. In the face of the dynamic global business scenario, the GLC are concerned about succession planning and have established plans to strengthen their leadership abilities as well as to develop more talents to bring about better organizational effectiveness. Mokhtar (2011) has defined GLC as companies that are managed by Government Linked Investment Companies (GLIC). In each GLC, there would be a GLIC that is the majority shareholder or a single largest shareholder for the GLC. As such, the Government may fully or partially own a GLC that also has public policy objectives. Unlike the government agencies that do not focus on financial returns, the GLC in Malaysia are required to achieve high returns on their investments as well as assume the role of economic catalyst for the country.

In view of the importance placed on creating real shareholder returns, it became imperative that GLC strengthen their leadership and develop their talents to sustain breakthrough performance. The Orange Book of Putrajaya Committee on GLC High Performance or PCG (2008) highlights that exceptional people with innate qualities are required to lead GLC in the future. They must be identified and nurtured as Malaysia requires talented leaders who can transform the GLC and which subsequently would assist to transform the nation as well. It is believed that GLC have a unique opportunity to be an incubator for leadership talent, and thereby the

creation of competitive advantage. As such, high potential GLC employees are given challenging assignments that would stretch them and help them to develop quickly. Importance is also placed on reducing unplanned attrition of leaders / talents as this occurrence would cause the organization to lose out on its development investment and be exposed to business risk. The strategy to strengthen the leadership talent developments among the GLC becomes more crucial as Malaysia progresses in her journey towards achieving the Vision 2020 aspirations as well as the targets set for the Tenth Malaysia Plan (2011-2015). Hence, the war for leadership talent has necessitated the creation of the leadership engine that empowers employees to power business performance. Moreover, today's war for leadership talent is as much about retaining leaders as it is about engaging them (Frank, Finnegan & Taylor, 2004).

The unit of analysis was individuals. The targeted respondents are the talents of the GLC who are at the middle management level. They were identified as the talent groups by the respective GLC. The middle management level is chosen as the target respondents because they have less structured and more ambiguous contexts. This group is also interesting theoretically as Johnson and Frohman (1989) claim that their job comprises of various combinations of relatively structured and unstructured contexts. The focused samples were the award winning GLC generally, and specifically among the G40, the group of GLC monitored by the Government-linked Investment Company (GLIC) of the Putrajaya Committee on GLC High Performance (PCG). Participation was voluntary with confidentiality assured. The questionnaire

was distributed to the respondents through the researcher's contact person at the participating GLC who manages or coordinates the talent group.

4.1.3 Questionnaire

The key research for the thesis is the questionnaire that comprised of 33 items. There were four sections in this questionnaire. Section I asks the respondents on their experience of psychological empowerment in their organization. In this section, there were 12 items that assessed psychological empowerment. The 12 items were adopted from the psychological empowerment measures of Spreitzer (1995) that examined psychological empowerment in four cognitions of meaning, competence, self-determination and impact on a seven-point scale. Each of the cognitions has three measures totalling 12 items for the four cognitions. Section II asks the respondents on their experience of talent engagement in their organization. In this section, there were 10 items that assessed talent engagement using Saks'(2006) employee engagement measures that comprised of job engagement (JE) and organization engagement (OE) on a five-point scale. Both JE and OE have five measures each totalling 10 items for this section.

Section III of the questionnaire asks the respondents on the anticipated consequences from their engagement with their organization. Employee job satisfaction was assessed using the three measures of Saks (2006) on a five-point scale. Similarly, intention to stay was an adjusted version of Saks' (2006) three items of the intent to quit that was also assessed on a five-point scale. Dedication that is likened to the emotional outcome of engagement by May et al. (2004) was assessed using the five

items of Schaufeli (2001) on a seven-point scale. These measures were adopted because they have been tested and have shown appropriate reliability as well as validity for subsequent use in this related study

Section IV asks the respondents on their demographic profile. This section is needed to enable the researcher to have a meaningful interpretation and comparison of the results. The demographic profile section had seven items; they are: gender, age, ethnicity, tenure in terms of years in the current organization, highest level of formal education, designation in the organization and monthly income group.

4.1.4 Research measures

Having analysed the papers of Kahn (1990, 1992), Thomas and Velthouse (1990), Spreitzer (1995, 1997), Schaufeli et al. (2002), Saks (2006), Prajogo and Ahmed (2007), and Lewis and Heckman (2006), as well as the works of Boudreau (2007), Bryan and Joyce (2007), and Cappelli (2008), a research framework as indicated in section 3.1 of Chapter 3 was developed. The aim of this research was to synthesise the diverse thoughts, discover other associations between the variables and value add the knowledge on workplace engagement, especially among identified talents in organizations. This research framework of six latent variables has 33 items (manifest variables) and six main hypotheses.

The research instrument is structured on a 5-point and 7-point Likert-type scale that ranges from 1 (strongly disagree) to 5 (strongly agree) for the 5-point Likert-type scale

and from 1 (very strongly disagree) to 7 (very strongly agree) for the 7-point Likert-type scale. The research items that were adopted from the psychological empowerment questionnaire of Spreitzer (1995), the employee engagement questionnaire of Saks (2006) that includes job satisfaction and intention to stay, and the dedication items from the Utrecht Work Engagement Scale of Schaufeli et al. (2002) are theoretically sound and reliably measured. Explanation on the measures of each construct is as appended in the following sub-sections.

Psychological empowerment

The four sub-dimensions of psychological empowerment (meaning, competence, self-determination, and impact) that were used as the antecedent for talent engagement in this research reflect a proactive orientation to one's work role. The scale was used to gather information on how psychologically empowered do employees perceived themselves to be. These four sub-dimensions have three items each with a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). A sample item for meaning is, "The work I do is meaningful to me" while a sample item for competence is, "I am confident about my ability to do my job." Accordingly, a high score for each of the items among the four sub-dimensions reflects a high degree of psychological empowerment. Spreitzer validated the multi-dimensional measures of psychological empowerment in the workplace using two samples; namely, the industrial sample and the insurance sample. In the industrial sample, she found that the overall empowerment construct had .72 Cronbach's alpha reliability coefficients. On the hand, the insurance sample yielded .62 Cronbach's alpha reliability

coefficients for the overall empowerment construct. Spreitzer also found an excellent fit of adjusted goodness-of-fit index (AGFI) for the industrial sample at .93 while the insurance sample recorded a modest fit with the AGFI of .87.

The construct validity of Spreitzer's psychological empowerment was affirmed by Stander and Rothman (2009). In their analysis, the four-factor structure of meaning, competence, self-determination and impact fitted the data best. They also found high Cronbach's alpha coefficients for the four sub-dimensions that range from .81 for competence to .89 for meaning. Their findings support the research work of Spreitzer (1995) who found internal consistency and reliability for the empowerment scale items. She also found good fit for the measurement model of the four sub-dimensions of psychological empowerment (PE) as well as supporting evidence for the construct validity of her PE dimension.

Talent engagement

Two types of talent engagement were assessed in the study; namely, job engagement (JE) and organization engagement (OE). These two constructs that were adopted from the measures used by Saks (2006) have five items each, and they were rated using a five point Likert scale. A sample item for job engagement is, "This job is all consuming; I am totally into it" while a sample item for organization engagement is, "Being a member of this organization make me come alive." Saks (2006) found a moderate Cronbach's alpha reliability coefficients for job engagement at .82 while organization engagement recorded a high Cronbach's alpha reliability coefficients of

.90. He also found meaningful difference between job engagement (JE) and organization engagement (OE). In his findings, JE and OE were noted to have significant but moderate correlation ($r = .62$ with $\rho < .001$). Yet his paired t-test indicated a significant difference of $t(101) = 2.42$ with $\rho < .05$ between JE and OE. As such, JE and OE are examined as separate constructs.

Job satisfaction

There were three items to measure job satisfaction. A sample item for job satisfaction (JS) is, “All in all, I am satisfied with my job”. Saks (2006) found the Cronbach’s α of .84 for this item. This construct is measured using a five point Likert-type scale that ranged from (1) strongly disagree to (5) strongly agree. Saks (2006) found that both JE and OE predicted JS at .26 and .41 with $\rho < .01$ and $\rho < .001$ respectively. These results were supported by the significant amount of variance in JS ($R^2 = .37$, $\rho < .001$) as affected by the engagement measures.

Talent outcomes

Two types of talent outcomes were assessed in this study, i.e. intention to stay (ITS) and dedication (D). The ITS items were adopted from the measures used by Saks (2006). A sample item for intention to stay (ITS) is, “If I have my own way, I will (still) be working for this organization one year from now.” An item of the intention to quit by Saks, “I am planning to search for a new job during the next twelve months” had the Cronbach’s α of .82. He found that the engagement measures of JE and OE also explained a notable amount of variance in his intention to quit variable

with $R^2 = .22$, at $p < .001$. In addition, JE and OE had reverse prediction for the author's intention to quit variable at $-.22$ of $p = .06$ and $-.31$ of $p < .01$ respectively.

The last construct of study that is dedication by Schaufeli et al. (2002) has five items. This construct is also measured with a seven-point Likert scale with anchors (1) never to (7) always. A sample item for dedication is, "I am proud of the work that I do." Schaufeli et al. found significant internal consistency for dedication at $\alpha = .89$ for their employees' sample. The authors used confirmatory factor analyses to examine their factorial engagement structure. However, unlike the absorption and efficiency variables that were highly correlated, the dedication variable of the authors fitted rather weakly to their data. As such, the Schaufeli et al. (2002) study lack convincing argument that dedication (D) should be subsumed as part of the engagement concept. Moreover, dedication that is likened to involvement in their study has similarity in concept with organizational commitment that is used as a consequence in Saks' (2006) study. In his study, Saks found positive relationship between engagement and organizational commitment. As such, I propose to extend Saks' (2006) work by testing dedication as a possible talent outcome in this study. In summary, the research design proposed for the study is as indicated in Table 4.1.

Table 4.1**The Research Design in brief**

Method	<ul style="list-style-type: none"> ▪ Collected data will be analysed using appropriate statistical techniques of SPSS. ▪ The hypothesised model will be empirically tested by using analysis of moment structure (AMOS) of the structural equation modelling (SEM).
Sampling area	Kuala Lumpur and Selangor
Research sample	Government-linked Companies (GLC) that are in the Strengthening Leadership Development Programme and the Cross-assignment project as per the media statement by Khazanah dated July 6, 2009.
Sample size	300 – 350
Research instrument	Survey Questionnaire complemented by organizational interview where applicable
Unit of analysis	Individual (<i>executive level and above employees who are identified as talents in respective organizations</i>)
Source of measurement	Saks (2006), Schaufeli et al.(2002), Spreitzer (1995)

4.2 Initial Field Research

This study has aimed to explore talent engagement and psychological empowerment with the focus on understanding the mediating effects of employee engagements such as job engagement and organization engagement, as well as job satisfaction on talent outcomes in Malaysian Government-linked Companies (GLC). The initial field research started with open discussions with selected GLC to gauge the environment and to gain initial findings about the GLC. As the proposed research model has scales

that were taken from various sources, a pilot study was done before the final survey. Questionnaires were distributed to the respondents who were similar to those that were targeted in the final samples. The aim is to screen items for appropriateness in the questionnaire.

4.2.1 Initial targeted samples

An initial survey by way of open discussions was held at PETRONAS (4/3/09), Malaysia Airlines (16/3/09), the National Electrical Board or TNB (30/3/09), and Telecoms Malaysia or TMB (14/4/09) during the period of March to April 2009. These four GLC were selected based on their award-winning performances, and that they have established exemplary human capital development practices at the respective organizations (PCG, 2009). This report has highlighted the findings of the Performance Management Implementation Effectiveness 2008 survey that the employee engagement scores for the G-20 of the GLC at 79 percent were higher than the Malaysia benchmark norm of 74 percent. Moreover, this achievement is only 4% behind the Global High Performance Norm of 83 percent.

4.2.2 The pilot study

A pilot study of the questionnaire was conducted on 37 respondents from different GLC who volunteered during the months of September to October 2009. Careful planning was made when the researcher initiated the pilot study. This step is important to ensure that the whole process of conducting the pilot study would provide the necessary learning and insights for improvement before embarking on the

final survey. Contacts were made directly with the person in charge of the talent groups in the GLC. The participating GLC for the pilot study were supportive and cooperative as they provided a room for the researcher to conduct this initial survey with some of their invited talents. Since the pilot study was conducted in small groups, the researcher used the opportunity to ask the talents if the purpose and questions of the questionnaire were clear to them.

This initial survey had 22 female (59.5%) respondents and 15 male (40.5%) respondents. Majority of the respondents were between 26 to 40 years of age. Their tenure in the organization was mainly between 1 to 5 years, and 10 to 15 years. Among the respondents, 89.2 percent were degree holders. Based on these findings, the internal reliability for most of the six measures was reasonable. The Cronbach's alpha for psychological empowerment was .90; job engagement, .66; organization engagement, .82; job satisfaction, .62; intention to stay, .67; and dedication, .87. The outcome from the interactive pilot study with the talents was that the researcher was able to refine the questionnaire format as well as the language used to improve the user-friendliness of the measurement tool.

The open discussions with the invited talents during the pilot study revealed two issues. One of the issues was that leaders must be themselves engaged to drive talent engagements in the organization. The other issue was that toxic (bad) management can drive talents to leave the organization. The participating GLC also shared that much thought were needed for the organizations to review how they treat their

employees generally compared to those considered as talents. Alignment was noted as the prime missing link between employer's organizational goals and employees' individual goals. Through the past five years since the commencement of the GLC Transformation Programme in 2004, the GLC noted that employees want to do the work that matters to them, they want to contribute to organizational targets as well as achieve greatness with their organizations. These findings supported the thoughts of Kahn (1990) and Spreitzer (1995) on the meaningfulness cognition in respective psychological condition and psychological empowerment theory.

4.3 Data collection procedure

Data collection was carried out in three phases. The researcher started the study with open discussions with the invited talents from the selected GLC followed by a pilot test of the questionnaire. The questionnaire was refined before proceeding with the actual questionnaire survey in the final phase of the study. Malhotra (2007) advocates that there must be at least four or five times as many observations (sample size) as there are variables. With 33 items in the proposed research framework, this meant that there must be a minimum of observations / sample size. Additionally, the central limit theorem (CLT) specifies that the acceptable sample size (n) is 30 for each construct (Cohen, 1988). Since the proposed research framework has six constructs, this would bring about the need for 180 observations. Furthermore, Arbuckle (2009) advocates that if one wants to run SEM well, there must be a minimum of 200 samples. I therefore proposed to obtain 300-350 samples from among the 13th March

2009 listed 33 Government-linked companies (GLC) that are willing to participate in this study.

The research methods implemented are basically quantitative, that is survey research using a questionnaire. The researcher had also undertaken some observational information when corresponding with the participating GLC. This effort supports the notion of conventionalism that denies the passive role of researcher's subjective interpretation in the journey of knowledge acquisition (Johnson & Duberley, 2003). Besides, it would be interesting to deliberate the quantifiable factors with some general interview information to bridge the gap between, add value as well as complement the two sides of analysis and research findings. This is simply because the soft data from the interview and observational analysis would look at the "logic in practice" (Neuman, 2006, p.151) while the hard data from the quantitative method provides information for statistical analysis. It needs to be noted that the choice of inclusion or exclusion of the methodological design is based on the time factor, cost-factor and the importance in relevance rather than general representatives.

4.3.1 Research process

The questionnaire was forwarded to the targeted respondents through the contact person of the selected GLC that were willing to participate in this study. Selection was based on identifying the talents and approaching them if they would volunteer to participate in the survey. Strict research ethics were adhered to throughout the administration of the questionnaires. The questionnaires that have been completed anonymously and sealed in an enclosed individual envelope each were collected

directly from the designated contact person in each of the participating GLC. Whenever there were opportunities arose, opened discussions were held with the director or manager of the talent group with the participating GLC to gather additional information to substantiate the discussion of the research findings. The data were then checked and cleaned before storing in a database by using the SPSS programme. The hypothesised model was subsequently tested by using AMOS of the SEM (structural equation modelling). Through the SEM, the hypotheses in this study were supported or otherwise.

4.3.2 Data analyses techniques

The questionnaire for the study used two types of rating scales, i.e. the five-point Likert scale and the seven-point Likert scale to reduce and if possible avoid the issue of constant methods bias that could bring about biased survey responses due to the way the questions were asked. Hair et al. (2006) explained that constant methods imply that the covariance among the measured items could be influenced by some or all of the responses which are collected with the same type of scale. They advocate that CFA should be used to assess the extent to which any particular scale type is biasing the results.

In general, the statistical analyses for this study were conducted using the SPSS program (PASW 18, 2010) and structural equation modelling (SEM). SPSS was used to compute the descriptive statistics as this technique provides an overview of the respondents who have participated in the study. The statistical techniques include

scale evaluations of reliability and validity, and multivariate techniques. The structural equation modelling (SEM) technique was used to confirm the hypothesised research model. Kline (2005) highlighted that the SEM technique is a theoretically-driven statistical tool. Bentler (1990) posited that the SEM technique can be used to specify, estimate and test a hypothesised model effectively. These statements supported the choice of the researcher in using SEM technique. Besides, the SEM was used because this multivariate technique combines “aspects of factor analysis and multiple regression analysis that enables the simultaneous examination of a series of interrelated dependence relationships among the measured variables and latent constructs as well as between several latent constructs” (Hair et al., 2006, p.710).

Empirical studies by Harter et al. (2002), Macey and Schneider (2008), Lawler (1996), as well as Luthans and Peterson (2001) have validated the positive relationship between engagement and organizational / individual performance. Since the adopted measures for this research have been fully developed and their factor structures validated, the choice of using confirmatory factor analysis (CFA) on the measuring instruments was appropriate. SEM statistically tests a priori theoretical assumptions against empirical data through CFA as well as the causal relationships among variables. The SEM was applied using the Analysis of Moment Structure (AMOS) to analyze the mean and covariance structures (Byrne, 2010). AMOS was also used to test the hypothesised model of the study to determine its goodness-of-fit with the collected data. It is expected that some degree of residual will be noted due to the discrepancy between the hypothesised model and the observed data. Byrne

(2010) attests that this discrepancy would occur because a perfect fit would not happen in reality.

The computed data that have been checked for usability were analysed using descriptive statistics such as means and standard deviations. Internal consistency of the measuring constructs was assessed using Cronbach's alpha coefficients (α) as advocated by Clark and Watson (1995). In order to specify the relationships between variables, Pearson correlation coefficients were used. Subsequently, Pearson product-moment correlation coefficients were also used to assess the relationships between the variables. This is followed by AMOS to investigate if psychological empowerment predicts job engagement (JE) and organization engagement (OE), followed by the analyses if JE and OE predict job satisfaction, and finally if job satisfaction predicts dedication and intention to stay. As for the test of significance, the confidence interval level was set at 99% ($\rho < .01$), while for the practical signature of correlation coefficients, a medium effect of .30 was set (Cohen, 1988).

In the final survey, the researcher had distributed 400 questionnaires to the GLC who agreed to participate in this study. A total of 342 GLC talents returned the completed questionnaire yielding a response rate of 85.5 percent.

Summary of Chapter

The research methods for this study have been given due considerations and justifications to ensure the resultant of reliable and valid data as well as analyses.

Careful steps have also been emplaced to enable this study to contribute academic knowledge on psychological empowerment, talent engagement and talent outcomes. Through the research work of Spreitzer (1995), Saks (2006) and Schaufeli et al. (2002), it has been proposed that psychological empowered employees would be engaged in their jobs as well as to respective organization in various degrees. Subsequently, these engagements would be reflected in their job satisfaction followed by their demonstration of work dedication and their intention to stay with the organization. These propositions were examined using SPSS and AMOS. The correctness or applicability of the propositions will be confirmed or otherwise by the subsequent chapter on research results.