# THE RELATIONSHIP BETWEEN ROLE AMBIGUITY, COMPETENCY AND PERSON-JOB FIT WITH THE JOB PERFORMANCE OF EMPLOYEES IN THE SERVICE SECTOR SMES IN MALAYSIA

**By**

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## ABSTRAK

Prestasi kerja para pekerja merupakan faktor penting dalam menentukan prestasi firma kerana pekerja yang berprestasi tinggi berupaya membantu firmanya mencapai matlamat strategik dan seterusnya melestarikan kelebihan persaingan. Perusahaan kecil dan sederhana (PKS) adalah kritikal memandangkan firma-firma ini menyumbangkan kepada pertumbuhan dan menggalakkan daya saingan di kebanyakan negara. Bagaimanapun, masalah produktiviti yang rendah di kalangan pekerja dari sektor PKS ini telah mencetuskan keperluan bagi menjalankan kajian untuk mengetahui tentang faktor-faktor yang menyumbang kepada masalah produktiviti kerja terutamanya dikalangan perkerja PKS dalam sektor perkhidmatan. Justeru, kajian ini dijalankan untuk meneliti hubungan di antara kekaburan peranan *(role ambiguity)*, keupayaan pekerja *(competency*) dan keserasian kerja-pekerja *(person-job fit)* terhadap prestasi kerja di kalangan pekerja dari sektor perkhidmatan PKS di Malaysia. Kajian-kajian lepas umumnya telah menunjukkan bahawa kekaburan peranan, keupayaan pekerja dan keserasian kerja-pekerja boleh mempengaruhi prestasi kerja para pekerja. Responden kajian ini terdiri daripada para pekerja yang bertugas dalam sektor perkhidmatan PKS di Malaysia. Kaedah kuantitatif telah digunakan dan data dikumpulkan menerusi borang kaji selidik yand telah dikirimkan melalui mel. Daripada sejumlah 1500 borang soal selidik yang telah diedarkan, hanya 300 daripada borang yang telah dikembalikan dan boleh diguna pakai. Jumlah ini telah menghasilkan kadar respon sebanyak 20 peratus. Analisis komponen prinsipal telah digunakan untuk pengesahan data. Statistik deskriptif digunakan untuk menganalisis ciri-ciri responden manakala teknik multivariat yang digunapakai ialah korelasi dan regresi berganda. Hasil kajian telah menunjukkan bahawa terdapat hubungan yang signifikan di antara kekaburan peranan, keupayan pekerja dan keserasian kerja-perkerja dengan prestasi kerja pekerja. Pada masa yang sama, diantara ketiga-tiga pembolehubah bebas, kekaburan peranan telah didapati menjadi faktor yang paling utama yang boleh mempengaruhi prestasi kerja para pekerja berbanding dengan keupayaan pekerja dan keserasian kerja-pekerja. Kajian ini membantu untuk menyerlahkan kepentingan faktor-faktor berkaitan dengan prestasi kerja yang mungkin boleh membantu untuk lebih memahami masalah produktiviti tenaga kerja yang rendah di kalangan pekerja sektor perkhidmatan PKS di Malaysia.



Katakunci: Sektor perkhidmatan PKS, Prestasi kerja, Kekaburan peranan, Keupayaan kerja, Keserasian kerja-pekerja

## ABSTRACT

Job performance of employees plays a crucial factor in determining a firm performance since highly performing individuals will be able to assist the firm to achieve its strategic aims, thus sustaining the firm's competitive advantage. Small and medium enterprises (SMEs) are critical especially these firms have been contributing to the growth and promoting competitiveness among many nations. However, the problems of low productivity among the employees of the SMEs triggered the need to investigate the factor that may contribute to the reasons behind the productivity problems specifically among the employees from the service sector SMEs. Thus, this study was conducted to examine the relationship between role ambiguity, competency, person-job fit and job performance of employees in the service sector SMEs. It was previously reported that role ambiguity, competency and person-job fit have significant relationships with the job performance of employees. The respondents of this study consisted of employees who were working in the various sub-sectors of service SMEs throughout Malaysia. A quantitative method was employed and data were collected using mail survey. In total, 1500 questionnaires were distributed and 300 returned surveys were deemed usable for further analysis resulted in 20 percent response rate. Principal component analysis was employed to extract and rotate the factors understudied. Descriptive statistics were use to analyse the characteristics of the respondents, while multivariate techniques employed were correlation and multiple regressions.The results revealed that there were significant relationships between role ambiguity, competency and person-job fit with the job performance of employees. At the same time, among the three independent variables, role ambiguity was found to be the most important predictor to job performance as compared to competency and person-job fit. This study helps to highlight the importance of factors relating to job performance, which may be used to understand better the problem of low labour productivity among the employees of the service sector SMEs in Malaysia.



Keywords: Service sector SMEs, Job performance, Role ambiguity, Competency, Person-job fit

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# CHAPTER ONE

# INTRODUCTION

## 1.1 Background

Job performance of employees plays a crucial factor in determining an organisation performance since highly performing individuals will be able to assist organisation to achieve its strategic aims thus sustaining the organisation competitive advantage (Lado & Wilson, 1994; Dessler, 2011). At the same time, knowledge of employee job performance will allow managers to make various kinds of decision ranging from compensation, promotion, and training as a basis for performance improvement to the extent of recommending termination (Piercy, Cravens & Morgan, 1998). In addition, success in job performance is a gateway for reaping financial and non-financial rewards for employees (VanScotter, Motowidlo & Cross, 2000).

Challenges rose from the effect of globalization, changing demographics, skills gaps and worker shortages that can all affect a nation's ability to maintain its competitiveness can also affect the job performance of employees (Davenport, 1999; Fernandez, 2001; Laprade, 2006). The many challenges that employees have to face due to the dynamism of workplace had resulted in difficulties for employees to maintain their job performance (Galagan, 1997). On the contrary, employers tend to have high expectations concerning employees' job performance by continuously monitoring their job

performance through various performance management activities (Dessler, 2011). Thus, excellent job performance will have to be maintained and labour force will have to be well equipped with the right skills and prepared to ensure businesses do not lose out due to lack of ability to compete both nationally and internationally (Tomaka, 2001). Small and medium enterprises (SMEs) in this context would not be alienated from the similar circumstances.

SMEs are regarded as critical especially when these businesses have been contributing to the growth and promoting competitiveness (Caniel & Romijn, 2005) of many nations. This primary economic contribution made by the SMEs to a country had given rise to the interest for researchers to examine the various obstacles that hinder their progress (Alasadi & Abdelrahim, 2008).

SME sector plays a vital role in both the developed and developing countries. The sector accounted for over 50 percent of the gross domestic product (GDP) in the developed economies and makes up the single largest sector in most of the developing economies (Kefela, 2010). According to Hall (2002), the contribution made by SMEs concerning GDP has been between 30 percent and 60 percent in the East Asian region, and in terms of employment, it is estimated to be as much as 70 percent of total employment of these regions.

Several important facts were revealed about SMEs in Malaysia. These facts were obtained through a nationwide Census on Establishments and Enterprises 2005 that was conducted on the Malaysian business enterprises

of the agriculture, manufacturing and services sectors. A preliminary assessment based on the 523,132 business establishments that had responded to the Census indicated that 99.2 percent or 518,996 of the business establishments in Malaysia are made up of the SMEs (Department of Statistics, 2006).

Given the number of SME establishments, Che Ros, Kumar and Lim (2006) concluded that SMEs in Malaysia are important in driving the Malaysian economy and its unemployment issues. The Malaysian SME Annual Report 2007 indicated that sustainable SMEs would be able to help in economic growth, which in turn helps in job creations and income generations. This can seen from the result of Census of Establishments and Enterprises 2005, which found that SMEs (which accounted for almost 99 percent of business establishments) contributed approximately 31 percent of the nation's GDP. At the same time SMEs' shares to total employment and exports of the country are estimated at 56 percent and 19 percent respectively (SME Annual Report 2007; SME Annual Report 2009/2010). Consequently, SMEs are always regarded as the backbone of Malaysian economy (Ramayah & Koay, 2002).

Furthermore, SMEs are able to create employment, seeding innovation, opening exporting opportunities and becoming well-established enterprises of medium and large sizes in the years to come (Harvie & Lee, 2002). These were also additionally supported when small-scale industries had assumed an important role in the process of industrialization and economic development of

the developing nations (Abdullah, Hamali, Deen, Saban & Abdurahman, 2009).

Aris (2007) pointed out that since the number of SMEs are huge as well as its operations and size that have grown significantly, it is important for SMEs to maintain its competitiveness by enhancing its productivity as well as technological capability. The needs to achieve these would certainly give rise to the need for SMEs to become knowledge-based. Moreover, Aris (2007) cited that SMEs become more significant in time of economic turbulence. The previous Asian financial crisis1997-1998 and the beginning of world economic crisis in 2008 should be seen as an indicator on the growing importance of SMEs in sustaining the country's economic development. Therefore in order to fuel the economic expansion and having domestic-led investment, SMEs are seen to be the best source to expedite this and to create less reliance on foreign direct investment (Aris, 2007).

Further Abdullah et al. (2009) stressed that, during the 1990s global economic downturn, the sustainability of small and medium businesses had proven to be recession proof with little reported cases of workers retrenchment as compared to large industries and they were also able to recover sooner than those larger ones. This scenario could be due to SMEs possessed the flexibility in adapting to economic downturn simply because they have found to be less rigid, lower resistance to change, adapt to economic downturn (Tan & See, 2004). Besides, SMEs tend to able to explore the market niches have also helped in their survival (Narjoko & Hill, 2007; Hodorogel, 2009). The

ability for smaller firms to survive was supported in a study by Varum and Rocha (2011) among the manufacturing firms in Portugal, in which they hypothesized that SMEs is more negatively affected by economic crises as compared to larger firms (data was obtained during the 1988-2007 period). Although their study found that both larger and smaller firms were significantly negatively affected by economic slowdowns, the magnitudes of the effect of the economic crises on both firms were different. Their study confirmed that larger experienced larger reduction in employment growth of 3 percent while smaller firms only seen a reduction by 1 percent. Apparently, employment in smaller firms was less affected by economic downturn. In other words, SMEs tend to be more resilient as compared to larger enterprises.

While the SME sector plays an important role in Malaysia, it also faces with many challenges. Although SMEs represented 99.2 percent of the total business establishments in Malaysia, the sector has only contributed as much as 32 percent to the Gross Domestic Product (GDP) (SME Annual Report, 2007; Sin, 2010). This is lower than the average contribution in other Asian countries such as in China and Japan with over 50 percent (Ndubisi, 2008; Osman, Ho & Galang, 2011). Past studies with regards to Malaysian SMEs had highlighted problems faced by Malaysian SMEs in general that had caused Malaysian SMEs appeared to be less competitive (Saleh & Ndubisi, 2006) which lead to the prevention of good performance (Moha, 1999; Hall, 2002; Stuti, 2005).

The common challenges that found to exist among the SMEs in Malaysia in various studies (e.g. SMIDEC, 2002; Wang, 2003; Ting, 2004; United Parcel Service (UPS), 2005; Saleh & Ndubisi, 2006) can be summed up as in the following:

- Bureaucracy inefficiencies of the government agencies that have resulted in poor business development of the SMEs in relation to the coordination of the high numbers of the SMEs,
- Limited access in obtaining financial assistance from financial institution and government,
- Shortage of skilled workers and not capable of facing high cost of hiring skilled workers which have caused SMEs not prepared to compete in the changes that is currently taking place (new business environment),
- Intense competition due to globalization of the economy coming from AFTA member countries, MNCs and also the rise of enterprises from the two Asian fast growing nations – China and India;
- Having technology and ICT constraints,
- Low demand from SMEs for the available technical assistance, advisory services and other incentives that are provided by the government and its agencies under the Investment Act 1986 and the Income Tax Act 1967, and
- Occupation of unapproved sites for industrial development by many SMEs.

In relation to human resources, skill shortages and productivity of employees have been highlighted as one of the on-going problems that dampen the

progress of SMEs in Malaysia (SMIDEC, 2002; Wang, 2003; Ting, 2004; UPS, 2005; Saleh & Ndubisi, 2006). Skills shortages are defined as the deficiency within the labour pool (Frogner, 2002) or deficiencies in the skills, which employees need in order to carry out their existing tasks (Green, Machin & Wilkinson, 1998).

In terms of skill shortages, Yogeesvaran (2005) found that there were serious problem of skills shortages in the majority of SMEs firms surveyed in Malaysia. In the survey, between 41-46 percent of firms surveyed mentioned that they were facing with “severe” or “very severed” problems of skills shortages. The surveyed also discovered that managers cited that it was very difficult for them to attract qualified applicants to apply for vacant positions which had resulted in skill shortages among the SMEs. This condition seems to concur well with the idea that SMEs have been frequently regarded as less attractive in the labour market which led it having less ability to attract and recruit highly skillful employees (Williamson, 2000; Williamson, Cable & Aldrich, 2002).

Now, SMEs are the major employers in the Malaysian labour market as evidenced in the Census on Establishments and Enterprises 2005 (SME Annual Report 2007). The Census had also revealed that there were 3 million workers employed in the SMEs sector, which forms 65.1 percent of the total country employment. Of this there were 2.2 million employment in the service sector SMEs as compared to the manufacturing sector (740,438) and

agriculture sector (131,130) (Aris, 2007). Thus, employees from the service sector SMEs form the largest group of labour in Malaysia.

In the same census, it was also found that in terms of labour productivity, only RM0.05 million value-added and RM0.13 million output per employee were generated by SME employees as compared to those from the larger enterprises which recorded approximately RM0.1 million of value-added and RM0.32 million output per employee (SME Annual Report, 2007)[1]. As for sectoral contribution of labour productivity, SMEs in the manufacturing sector registered the highest labour productivity at RM64,089, followed by SMEs in the services (RM47,151) and agriculture (RM27,526) sectors (SME Annual Report, 2007). This condition had been invoked by the prevailing problems of lack of skills and abilities that are faced by the employees of SMEs as compared to those from the larger enterprises (Chee, 1987; Reed, Walsh, & Grice, 2001). Additionally Snell and Lau (1994) also in agreement those workers in the smaller organisations tend to possess less skills, knowledge and competencies.

Meanwhile, in general the service sector has been gaining more importance in the world economy. This is because as countries continue to experience development and increasing in income level, more emphasis will be shifting towards service sectors while moving away from the agricultural and manufacturing sectors (Lovelock, Patterson & Walker, 2004).

[1] Data was based on the Census on Establishments and Enterprises 2005 which was reported in the SME Annual Report 2007. The SME Annual Report 2009/2010 did not provide the estimations for this information. Thus, any estimation stated thereafter was made based on the above-mentioned Census.

Due to the shift, there is now an upward trend in Malaysia of trade in services, increase in manufacturing related services activity, outsourcing of services activity as well as the push for greater liberalization of the sector. Thus, all these have made the sector able to deliver a commanding effect to the economy of Malaysia (Economic Review, 2005). Since the services sector in Malaysia contributed approximately 55 percent to the GDP in year 2008 with approximately 48 percent are from the non-government services, the sector deserves to be given attention in the present study (Chan, 2009). The figure increased to 58 percent for year 2010 and predicted to reach 61.1 percent by year 2015, as the services sector would continue to be the engine of economic growth (SME Annual Report, 2009/2010).

Moreover, there were intense efforts by the Malaysian government to boost further the service sector in general as displayed in the country development plan. The importance of service sector to the economic development was evidenced when for the first time in Malaysia the service sector recorded a surplus in year 2007 and continued to do so in year 2008 with RM102.1 billion in service export and RM 99.8 billion in service import. Additionally, investments totalling RM50.1 billion were approved in year 2008 with 11 percent in the form of foreign direct investment. Moreover, a report by World Trade Organisation (WTO) noted that Malaysia is among the top 30 leading global exporters of services (Chan, 2009). Thus, having seen the huge potential of the services sector, the Malaysian government had taken a bold move when it announced the removal of Bumiputera 30 percent equity

requirement for the twenty-seven services sub-sectors in line with the Asean trade liberalization and as a move to boost the service sector (Chan, 2009).

An important point to note is that among all the services establishments in Malaysia, majority of them came from the service sector SMEs which forms approximately 86.5 percent of the total SMEs establishments (Department of Statistics, 2006). According to the National SME Development Council 2004, SMEs in services including ICT is defined as an enterprise with full-time employees not exceeding 50 or annual sales turnover not exceeding RM5 million (Bank Negara Malaysia, 2005). This scenario has thus making the service sector SMEs as the dominant establishments in the service sector in Malaysia. Since the majority of establishment are made up of those coming from the SMEs sector, it is reasonable to conclude that when reference is made pertaining to the service sector, it would likely be referring to those from the SMEs environment. Therefore it augurs well for the current study to investigate the job performance of employees working in the service sector SMEs.

## 1.2 Problem statement

Although the service sector SMEs, has the highest employment, the labour productivity of the manufacturing sector over took the service sector SMEs at RM64, 089 while the service sector had only contributed RM47, 151 (SME Annual Report, 2007). Besides that, the job performance of employees in the service sector SMEs was found to be low due to the lack of right skills (Saleh

& Ndubisi, 2006). This is further strengthened with the recent report that service sector SMEs tend to experience with labour shortages mainly in the skilled and semi-skilled category of employees (SME Annual report 2009/2010)

Moreover, almost 72 percent of employment in the service sector SMEs were made up of those that received education of *Sijil Pelajaran Malaysia* (*SPM)* and below, which may affect the ability of the employees to deliver expected standard of job performance due to lack of skills (Aris, 2007).Thus, the above-mentioned condition illuminated the needs for investigation to be carried out since on the contrary the service sector SMEs recorded a total amount of employment of 2.2 million, which is higher as compared to the manufacturing SMEs that have only 740,438 employees (SME Annual Report, 2007) . Therefore, investigation on the job performance of employees in the service SMEs would help to unfold the reasons accounted for the low level of labour productivity. Moreover, many past researches concerning SMEs tend to concentrate on the manufacturing industries (Buzzell & Gale 1987; Bartlett & Ghosal 1989).

In the past, there were many researches on SMEs in Malaysia. There were various isues discussed ranging from identifying problems faced by SMEs in Malaysia on issues of productivity and skills shortages (Yogeesvaran, 2005; Hamzah & Ho, 1994; Tan, 1996; Saleh & Ndubisi, 2006), entrepreneurial problem (Abdullah et al., 2009), TQM and organizational performances (Sohail & Hoong, 2003), empowerment (Wyer & Mason,1999), ICT adoption

among SMEs (Alam & Ahsan, 2007), SMEs historical development (Hashim (2000), staff training and SMEs performance (Jamaludin & Hasun, 2007) to assessment criteria of bank towards small business borrowers (Mahmood & Rahman, 2007). Nevertheless, the above-mentioned studies were not focusing on the job performance of employees in the service sector SMEs.

Furthermore, in view of the SMEs firm, which are tiny in size, it is a common practice to carry out researches with the scope focusing on sectoral basis, which is based on either manufacturing, services or agricultural sectors (e.g. Hashim, 1999; Hashim & Wafa, 2002; Che Rose, Kumar & Lim, 2006; Deros, Yusof & Salleh, 2006; Lai, 2006; Alam & Ahsan, 2007). This is because the relevancy of conducting research by subsectors of each industry type may not indicate much about their relative importance if analysis was carried out given a lot of the SMEs are very tiny, thus the outcome of any analysis may not leave a great impact on the overall performance of each of the industry type (Hashim, 2000). As such taking from this perspective, investigation on the job performance of employees of this study was carried out on the employees from service sector SMEs as a whole thus making no distinction within the sub-sectors in the services SMEs' component.

In addition, past research had also revealed the uniqueness of the nature of work for those involved in the service setting (Anderson, 2006). This uniqueness was due to employees being the key participants in any service transaction, thus the reputation of an enterprise can be easily defamed by a single employee job performance (Rafaeli, 1989). In other words, the job

performance of employees as when the service is rendered is critical to customer satisfaction.

Accordingly, the theory of performance by Campbell (1990) stipulated that job performance is a function of declarative knowledge, procedural and skills knowledge and motivation In other words, in order to perform a job well a person needs to know what to do (having clarity of job expectation), how to do it (possessing the competency) and possess the desire to do it (being motivated). Previous studies had also discovered several factors that can specifically affect the job performance of employees in a service setting.

Employees working in a service setting have found to experience role ambiguity (Wener, 1985; Singh & Rhoads, 1991; Knowles, Grove & Pickett, 1992; Price, Arnould & Tierney, 1995; Babin & Boles, 1998; Varca, 2002). The need to study on role ambiguity as a variable arises because in any service setting, employees who are able to understand and clear about their roles in the organisation are likely to perform well in their job (Anderson, 2006). At the same time, past researches related to employees that work in a service setting (e.g. Murkherjee & Maholtra, 2006; Lang, Thomas, Bliese, & Adler, 2007) had shown that role ambiguity influenced the employees' job performance. Furthermore, the outcome of past researches had revealed revealed either a mixture of negative, weak or no relationship between role ambiguities with job performance (e.g. Brief & Aldag, 1976; Jackson & Schuler, 1985; Michaels, Day & Joachimsthaler, 1987; Singh, 1993; Beauchamp, Bray, Eys & Carron, 2005; Hall, 2008). These outcomes thus created a need to re-examine the factor role ambiguity in the context of

service sector SMEs, as there is a lack of attention given to study this factor in the past SME researches.

In addition, employees in a service setting also need to possess the right competency in order to be effective in their job performance. According to Zeithaml, Parasuraman & Berry (1990), it is necessary for service workers to be skilled and trained in order to deliver effective service. Some examples of competencies that are necessary for service employees consist of friendliness, concern, insight, communicative and adaptive were noted (Nyquist, Bitner & Boom, 1985; Hartline & Ferrell, 1996). Previous studies (e.g. Spencer & Spencer, 1993; Vanthanopas & Thai-ngam, 2007; Vakola, Soderquist & Prastacos, 2007; Potluri & Zeleke, 2009) on the relationship between competency and job performance were conducted abroad while studies on competency in Malaysia (e.g. Deros, Yusof & Salleh, 2006; Ahmad, Ramayah, Wilson & Kummerow, 2010; Azmi, 2010) focused on issues either related to the entrepreneurs' or the public sector employees.

Moreover, evidence from the Census on the Establishments and Enterprises 2005 showed that skills shortage (lack of competency) among the employees had contributed to the low level of labour productivity (Department of Statistics, 2006). Therefore, it is necessary to carry out a study to examine the effect of competency on the job performance of those employees working in the service sector SMEs to add on to the present research on competencies in Malaysia.

Meanwhile, in order for service employees to perform well they must personally have a liking to the job or being attracted to jobs in a service setting as the suitability or fit between the employee and the job is necessary (Klaus, 1985; Bowen & Schneider, 1985). This is because person-job fit is directly related to the compatibility between a person and a specific job and it is measured as the correlation between the skills and job requirements of employees (Zheng, Kaur, & Zhi, 2010). Additionally, the existence of a good fit between employees and their job has always been regarded as important by most organisational behaviour theorist (Kristof-Brown, Zimmerman & Johnson, 2005) because the presence of a good job fit will ensure the effective completion of a job (Edward, 1991). In addition, past research had shown the degree of fit that exists between a person and the job could influence both the productivity and employee commitment (Rousseau & McLean Parks, 1992). The current problem of low labour productivity among the employees of the service sector SMEs triggered the needs to investigate whether the issue of incompatibility between the jobholder and the job are the reasons behind the labour productivity problems.

Although the above-mentioned researches have studied on the three independent variables, they were not carried specifically in the context of service sector SMEs. Thus, there is a need to carry out a research again concerning the three variables (role ambiguity, competency and person-job fit) in relations to the job performance of employees within the context of service sector SMEs. Moreover, studies on employee job performance concerning role ambiguity (e.g. Jackson & Schuler, 1985; Singh, 1993; Abramis, 1994;

Bhuian, Menguc & Borsboom, 2005; Murkherjee & Maholtra, 2006; Lang, Thomas, Bliese & Adler, 2007), competency (e.g. Vakola, Soderquist & Prastacos, 2007; Spencer & Spencer, 1993; Vanthanopas & Thai-ngam, 2007; Hashim, 2008; Potluri & Zeleke, 2009) and person-job fit (e.g. Caldwell & O'Reilly, 1990; Edwards, 1991; Hecht & Allen, 2003; Erdogan & Bauer, 2005; Behery, 2009), were mostly conducted abroad, and thus lack of evidence exists in Malaysia to understand the job performance of employees especially those in the service sector SMEs.

Thus, to the best of the author's knowledge, there is a lack of research that have considered using role ambiguity, competency and person-job fit as the constructs to conduct studies in relation to the service sector SMEs in Malaysia. Additionally, by analysing these variables in a multivariate framework, the results obtained would enable better understanding of the interactions that could exist between the variables with the job performance of employees. Since there were inadequate findings derived from past researches in relation to employee job performance, it would be useful for additional research to be carried out especially in the context of service sector SMEs.

Hence, the problem to be investigated in this research is to identify whether there is a relationship between role ambiguity, competency and person-job fit with the job performance of employees in the service sector SMEs in Malaysia.

## 1.3 Research Questions

In view of the problem statement, this research attempts to answer the following questions on the job performance of employees working in the service sector SMEs in Malaysia:

1. Is there a significant relationship between role ambiguity and the job performance of employees working in the service sector SMEs?
2. Is there a significant relationship between competency and the job performance of employees working in the service sector SMEs?
3. Is there a significant relationship between person-job fit and the job performance of employees working in the service sector SMEs?
4. Which is the most significant factor among the three variables - role ambiguity, competency and person-job fit that may affect the job performance of employees working in the service sector SMEs?

## 1.4 Research Objectives

Generally, this research is to examine the effects of role ambiguity, competency and person-job fit on the job performance of employees in the service sector SMEs in Malaysia. The specific objectives of this study are:

1. To determine whether there is a relationship between role ambiguity and the job performance of employees working in the service sector SMEs.
2. To determine whether there is a relationship between competency and the job performance of employees working in the service sector SMEs.

3. To determine whether there is a relationship between person-job fit and the job performance of employees working in the service sector SMEs.
4. To determine which among the three variables – role ambiguity, job competency and person-job fit would have a more significant effect on the job performance of employees working in the service sector SMEs.

### 1.5 Significance of the study

The significance of this present research can be divided into two perspectives. Firstly, the significance of this study can be seen from the theoretical perspective. Even though there were many research interest on the determinants of job performance (e.g. Muczyk & Gable, 1987; Motowildo & Van Scotter, 1994; Delery & Doty, 1996; Van Scotter & Motovildo, 1996; Harrison, Rainer, Hochwarter & Thompson, 1997; Hurtz & Donovan, 2000; Canty, 2005; Messer, 2007; Sommer-Krause, 2007), most of them were conducted abroad, and thus lack of evidence exist to understand the job performance of employees in the Malaysian context.

Many of SMEs studies in Malaysia had deliberated on various issues other than employees' job performance such as on the identification of problems faced by SMEs in Malaysia (Hamzah & Ho, 1994; Tan, 1996; Yogeesvaran 2005; Saleh & Ndubisi, 2006), entrepreneurial problem (Abdullah et al., 2009), TQM and organisational performances (Sohail & Hoong, 2003), empowerment (Wyer & Mason,1999), ICT adoption among SMEs (Alam & Ahsan, 2007), SMEs historical development (Hashim, 2000), staff training

and SMEs performance (Jamaludin & Hasun, 2007) and as well as on assessment criteria of bank towards small business borrowers by Mahmood and Rahman, (2007). These evidences provided another justification on the importance of carrying out this study concerning job performance issues among the employees in the service sector SMEs.

Furthermore, lack of attempt was made in the study of job performance which focus on employees working in the service sector SMEs as many previous studies regarded all employees of the SMEs as the same regardless of the sectors they were in which had been proven to be different (Bowen & Ford, 2002; Bowen & Hallowell, 2002). This condition had therefore illuminated a significant gap in the past literatures on Malaysian SMEs that tend to focus on overall sectoral problems and organisational level problems rather than from the individual level problems in respect to job performance. Thus, the present study may contribute to the existing literatures on SMEs in Malaysia specifically in the context of service sector SMEs, which has not received much attention. At the same time, it is hopeful that this study will be able to add on to the present literatures of SMEs by highlighting the issues faced by SMEs sector from the employees' perspectives that often been overshadowed by many researches on firm level performance.

Secondly, from the applied significance perspective, this study is able to provide better understanding on the performance of employees in service sector within the SMEs context. The knowledge obtained can assist employers in developing strategies that may help to motivate employees to

perform better. In addition, this research is an opportunity for SMEs to view the present problems faced by the SMEs in relation to skill shortages and lack of productivity from the perspective of employees. Therefore, it is also hope for these problems to be resolved through better understanding of the factors that can affect employees' job performance, which in turns may help to overcome the on-going human resources issues of the SMEs.

As Soroham (1993) mentioned due to the level of competition that is ever increasing either among the SMEs themselves or with the bigger companies, locally or abroad, efficiency is the key to counter this level of competition. In fact, when looking at history the importance of small business cannot be denied as it has survived in many ancient cultures as noted by Siropolis (1990). Ancient societies of the Phoenicians, Arabs, Babylonians, Egyptions, Jews, Greeks and Romans all performed excellently in business enterprises, and civilization actually spread throughout the world through small businesses.

Perhaps the success of small businesses that we see today could further justify the importance of making studies of the SMEs. We can see in the success story of many foreign companies like McDonalds, KFC, Apple Computers and others that have all started small, which eventually became big giants in their own respective industry (Siropolis, 1990). Therefore, this research can complement the present efforts by the Malaysian government in paving ways to build a successful service sector in the country that can be achieved by one of the key important factors which is the human capital.

## 1.6 Definition of terms

Service**:** Any act or performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product (Kotler & Turner, 1993).

Service sector SMEs: As determined by the National SME Development Council, a small and medium enterprise in services (including ICT) is an enterprise with full-time employees not exceeding 50 or annual sales turnover not exceeding RM5 million (Bank Negara Malaysia, 2006).

Service employees: Refers to the key participants in any service transaction are service employees. It is they whom customers meet on entering into an organization or firm (Anderson, 2006).

Job Performance: This refers to those actions or behaviours that are relevant to the organisation's goals and that can be scaled (measured) in terms of each individual's proficiency (that is, level of contribution). In other words performance is what the organisation hires one to do, and do well (Campbell, 1990).

Role Ambiguity: A condition when employee is not equipped with good understanding about his (her) responsibilities and having little knowledge of

what is expected pertaining to his (her) job performance (Rizzo, House & Lirtzman, 1970).

Competency: A job competency represents ability. In other words, when individual possessed a competency, it reflects capability (what an individual can do). Thus is refers to the basic qualities that must be possessed by employees such as the knowledge, skills, characteristics and attributes in order to perform a task (Boyatzis, 1982).

Person-job Fit: Person-job fit is defined as the compatibility that may exist between a person and the specific job demand (Kristoff, 1996).

### 1.7. Scope of the study

The scope of this study will only examine the employees (excluding owner manager) who are currently working in the service sector SMEs in Malaysia as the unit of analysis without distinction within the subsectors in the services SMEs' component. This study did not account for the subsectors of the service sector SMEs and information obtained about the subsectors were merely for profiling of the respondents. Justification is based on the reason that conducting research by subsectors of each industry type may not indicate much about their relative importance since many of the SMEs are very tiny, thus, the outcome of such studies may not leave a great impact on the overall understanding of the employees' job performance. In order to determine the population of this study, reference was made to a sampling frame that was

obtained from the SME business directory as of March 2011 where categorizations were based on sectoral basis. In line with this study, three variables are understudied comprised of role ambiguity, competency and person-job fit in influencing the job performance of employees. Finally this study is supported by the Theory of Performance (Campbell, 1990), Two-Factor Theory (Herzberg, 1968) and The Congruency Theory (Barrett, 1978).

### 1.8 Organisation of the dissertation

This dissertation consists of five chapters. Chapter One introduced the study which included the background of the study, the research problem, the research questions, the objectives of the research, definition of terms and the significance of the study . Chapter Two contains the literature review, which will first describe the nature of SMEs research in Malaysia, the SMEs development in Malaysia followed by reviews on job performance, role ambiguity, competency and person-job fit. Chapter Three carries on with the discussion of underpinning theories of this study, which leads to the development of a theoretical framework and the hypotheses formulation, which are derived from the literatures in the preceding chapter. The chapter also contains the research methodology, which discusses the research design, sampling procedure, measurements and data collection process and the techniques of data analysis. Chapter Four analyses the collected data and the results of the research. Chapter Five contains the conclusion and recommendation of the study. This will include the contributions of the study and its limitations and conclude with suggestions for future research.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This chapter begins with the information on the nature of SMEs research in Malaysia. It follows by the definition and development of SMEs in Malaysia through various national development plans in order to provide understanding on the SME sector in Malaysia. The next part contains the literature review of the present study which comprised of review on job performance, role ambiguity, competency and person-job fit.

## 2.2 Nature of SMEs research in Malaysia

It is important to develop an understanding on the nature of researches concerning SMEs in Malaysia. It is common to see many past researches on SMEs in Malaysia (e.g. Ramayah, Yan & Sulaiman, 2005; Che Rose, Kumar & Lim, 2006; Deros, Yusof & Salleh, 2006; Lai, 2006; Alam & Ahsan, 2007; Ainin, Kamarulzaman, Farinda & Azmi, 2010; Abd. Aziz & Mahmood, 2011) focused on either the manufacturing, service sector SMEs or the entire sector as whole. The reason accounted for this practice is because even though there are many firms found in each industry type (manufacturing or service), they are mostly very tiny (by company size) thus their numbers may not indicate much about their relative importance by the type of business (Hashim, 2000). As such taking from this perspective, investigation on the job

performance of employees of this study was carried out on the employees from service sector SMEs as a whole thus making no distinction within the sub-sectors in the services SMEs' component.

## 2.3. SMEs in Malaysia

### 2.3.1 Definition of the types of SMEs in Malaysia

At present there seems to be many variations and no consensus on the definition of SMEs. The definition of SMEs can be derived based on multiple factors ranging from location, size, age structure, organisation type, number of employees, sale volume or assets worth, ownership, innovation to technology (Husband & Mandal, 1999; Sevilla & Soonthornthada, 2000; Rahman, 2001). Hashim (2000) mentioned that the criteria used for SMEs classifications may have also evolved but in general the basic quantitative criteria are in used in which SMEs classification is based on amount of capital, numbers of employees, amount of assets and also sales turnover.

According to National Small and Medium Sized Enterprise (NSMEDC) Development Council 2004 (Bank Negara Malaysia, 2005), SME is classified into three types (micro, small and medium) which is based on two broad categories of industries as shown in Table 2.1 (see page 26).

Table 2.1
*Types of SMEs by categories of industries*

| | | | | |
|---|---|---|---|---|
| 1. | Manufacturing (including agro-based) and manufacturing related services | A micro enterprise in manufacturing (including agro-based) and manufacturing related services is an enterprise with full-time employees of less than 5 or with annual sales turnover of less than RM250, 000. | A small enterprise in manufacturing (including agro-based) and manufacturing related services is an enterprise with full-time employees of between 5 and 50 or with annual sales turnover of between RM250, 000 and less than RM10 million. | A medium enterprise in manufacturing (including agro-based) and manufacturing related services is an enterprise with full-time employees of between 51 and 150 or with annual sales turnover of between RM10 million and RM25 million. |
| 2. | Services, primary agriculture and information and communication Technology (ICT) | A micro enterprise in services is an enterprise with full-time employees of less than 5 or with annual sales turnover of less than RM200, 000. | A small enterprise in services is an enterprise with full-time employees of between 5 and 19 or with annual sales turnover of between RM200, 000 and less than RM1million. | A medium enterprise in services is an enterprise with full-time employees of between 20 and 50 or with annual sales turnover of between RM1million and RM5 million. |

Source: Bank Negara Malaysia (2005)

Specifically, based on the Census on Establishments and Enterprises 2005 (Department of Statistic, 2006) the service sector SMEs consist of retailers, wholesaler, transport and equipment, professional services, consultancy services, education, hotel, computer services and communication, restaurants, selected services (include rental services, advertising, research and development, business activities (labour recruitment, building cleaning, packaging services, and duplication services), recreation, cultural and sporting activities (motion picture projection, recreation clubs), financial

intermediaries real estate activities and health (includes hospital, medical, dental and veterinary services, herbalist, homeopathy and foot reflexology).

The next section provides an overview of the development of SMEs in Malaysia which precedes the detail discussion of the literature review of the variables understudied. This overview provides the background information on the Malaysian SMEs as well as to highlight the various measures taken by the Malaysian government in enhancing the sector representing the emphasis by the Malaysian government on this sector.

### 2.3.2 SMEs Development in Malaysia

SMEs development in Malaysia can be traced back to the 1970s during the establishment of the new economic policy in 1971 that was aimed to improve the welfare of the people and to bring about a change in the ethnic economic imbalances (Saleh & Ndubisi, 2006). As mentioned before, the significance of the SMEs sector in Malaysia cannot be denied as its contribution in the national economy through various sector is evidenced such as in the business units, employment and economic output (Hashim, 1999).

At present SMEs represented 99 percent of the total business establishment and given this the Malaysian government has carried out various programmes for the sector as well as to sustain its growth momentum. This can be seen through the national development plan consisting of the Second Industrial Master Plan (IMP2: 1996-2005), the Eighth Malaysia Plan (8MP: 2001-2005,

the Ninth Malaysia Plan (9MP: 2006-2010) and the Third Industrial Master Plan (IMP3: 2006-2015) (smeinfo.com.my).

Under the Second Industrial Master Plan: 1996-2005 (IMP2), the manufacturing sector of SMEs was given major considerations as the government acknowledged that in order to develop stronger SMEs, the manufacturing sector SMEs (which comprised of 90 percent of the total country manufacturing sector) must undergo major changes. The IMP2 was intended to help the manufacturing sector to become more resilient and to be able to compete internationally by making sure that the manufacturers were adaptive to the global changes (smeinfo.com.my).

The Eighth Malaysia Plan: 2001-2005 (8MP) covered a range of five-year period with the focus of assisting SMEs through various programmes. These can be seen as in the following (www.smeinfo.com.my):

- Assistance provided through the Small and Medium Industries Development Corporation (SMIDEC) to help SMEs to enter export markets,

- The creation of the Bumiputera Commercial and Industrial Community (BCIC) focusing on entrepreneurial, managerial and technical skills development,

- Nurturing ICT-based SMEs by assisting local ICT and multimedia SMEs, particularly the start-up companies, and

- Improving SME access to financing through various schemes undertaken by the Government, Bank Negara Malaysia, and banking institutions.

Under the Ninth Malaysia Plan: 2006-2010 (9MP), the main policy derived for SMEs is to make sure the sector is competitive, innovative and technologically sound so that it can contribute not only in the local economy but also in the global market. Strategies adopted were to acquire technologies that can help to boost the SMEs up the value chain in the manufacturing, agriculture and the services sector which include (www.smeinfo.com.my):

- Outsourcing

  Programmes will be implemented to nurture SMEs as Research and Development (R&D) partners. Collaborative ventures among Multinational Corporations (MNCs), Government-linked companies (GLCs) and SMEs will facilitate technology transfer and skills development and marketing;

- Inter-firm linkages

  Creating business links between SMEs, GLCs and MNCs would enable SMEs to be more competitive and become reliable suppliers for global

outsourcing networks, which would expand Malaysia's, trade with new export markets;

- Entrepreneurship programmes

  Programmes, including advisory and outreach services, will be expanded to equip SMEs with new and improved management and business practices, methods in production, quality improvement, marketing and distribution;

- Knowledge skills

  Development of technical skills amongst SMEs, especially in generating innovation and creation of economic value from knowledge applications

In order to continue the effort to develop the SMEs further, the Third Industrial Master Plan: 2006-2015(IMP3) was then established that covers a period of fifteen years along with the 9MP. The IMP3 saw an increased in the government allocation that reflects strong commitment for the development of the SMEs sector. The IMP3 outlined five clear strategies to support the development of diverse and competitive SMEs as the following (www.smeinfo.com.my).

The five strategies are:

- Competitive Edge - Integration and Rationalisation
- Outward Bound - Armed and Prepared in a Global Arena

- ICT - Friend Not Foe
- Cohesive and Supportive Framework - Encouraging Potential to Shine
- Nurturing the Services Sector - Towards New Areas of Growth

### 2.3.3 Conclusion

The above description provided a brief elaboration on the definition of SMEs in general and followed by an explanation on the service sector SMEs specifically. The depiction of the SMEs development in Malaysia shows the importance of the sector to the economic growth of the country. It also demonstrated various efforts taken by the Malaysian government to enhance the SME sector further through the national development plan consisting of the Second Industrial Master Plan (IMP2: 1996-2005), the Eighth Malaysia Plan (8MP: 2001-2005, the Ninth Malaysia Plan (9MP: 2006-2010) and the Third Industrial Master Plan (IMP3: 2006-2015). The following section of this chapter will set path for the subsequent sections of this study, as it will cover the literature review on job performance as the dependent variable, with role ambiguity, competency and person-job fit as the independent variables.

## 2.4 Job Performance

Job performance has always been regarded as an important factor in employee management. Job performance has been associated with the ability of the employees realizing their respective work goals, fulfilling expectations as well as attaining job targets and/or accomplishing a standard that are set

by their organisations (Eysenck, 1998; Mathis & Jackson, 2000; Bohlander, Snell & Sherman, 2001).

### 2.4.1 Definition of Job Performance

Most people will immediately define job performance as what a person does at work. Different stages of job as well as the complexity of a job can affect the overall performance of the jobholder (Ackerman, 1997, Murphy, 1989). In fact the definitions of job performance are often unclear and hardly being specific thus making them less useful (Campbell, Gasser & Oswald, 1996). This could mean that job performance as a construct can be defined in different ways since it can be affected by the stage and complexity of the job (Grubb, 1999).

Sarmiento and Beale (2007) referred to job performance as the result of two aspects, which consist of the abilities and skills (natural or acquired) that an employee possesses, and his/her motivation to use them in order to perform a better job. On the other hand, industrial psychologist may have a broader view of what performance may entails. The field of psychology view job performance from the multidimensional construct perspective (Borman, Hanson & Hedge, 1997; Avery & Murphy, 1998; Schmitt & Chan, 1998; Campbell, 1999; Hough & Oswald, 2000; Viswesvaran & Ones, 2000).

In order to explain better the meaning of job performance, Campbell and his associates developed the theory of performance, which helps to highlight the

importance of having accurate understanding of meaning of performance in analysing a person-job performance (Campbell, 1990; Campbell, McCloy, Oppler, & Sager, 1993; McCloy, Campbell & Cudeck, 1994; Campbell, Gasser & Oswald, 1996; Campbell, 1999).

Campbell et al. (1993, pg. 40) defined performance as “synonymous with behaviour. It is something that people actually does and can be observed. By definition, it includes only those actions or behaviours that are relevant to the organisation's goals and that can be scaled (measured) in terms of each individual's proficiency (that is, level of contribution). Performance is what the organisation hires one to do, and do well”. Campbell et al. (1993) further noted that only action that can be measured could be regarded as performance. Furthermore, the behaviour is referring to those that are controllable and that will be geared towards the organisation goal (Campbell et al., 1993). Even though there were many attempts to introduce various frameworks of performance, Campbell’s definition of performance had been widely accepted as the basic definition for performance (Borman, Hanson & Hedge, 1997; Motowidlo, Borman, & Schmit, 1997; Schmitt & Chan, 1998).

In view of the abovementioned definitions, job performance in this study is therefore defined as what an employee is expected to do in relations to the demand of their job as when they are hired and covers only those actions or behaviours that are relevant to the organisation's goals and measurable in terms of each individual's proficiency.

### 2.4.2 Past research on Job Performance

Past researches on job performance had found a stream of factors that could have influenced the employee performance ranging from individual/employee related factors, organisational level factors as well as environmental factors. One of the factors that had been associated with job performance is commitment. For instance, a longitudinal study of twenty-five years by Jaramilloa, Mulki and Marshal (2005) on the effect of organisation commitment on the salesperson-job performance was done across fourteen countries with research carried on sales employees and non-sales employees. The empirical study revealed there was a positive relationship between organisational commitment and job performance and this finding indicated a stronger relationship occurred among the sales employees than non-sales employees. In addition to that, there exists a stronger correlation between organisational commitment and job performance in a collectivist compared to individualistic cultures. In other words, when employees' commitment is high, their job performance will increase.

In order to determine the factors that could affect the job performance of nurses in Riyahd, a study was carried out by Al Ahmadi (2009). The study found that job performance was positively related with employee organisational commitment and job satisfaction as well as with some personal related factor like age, experience, gender, nationality and marital status. Job satisfaction had also received attention in other researches. In the same way, through a study that was conducted on the casino employees in Macau, it was

also discovered that job satisfaction was significantly related to job performance and had a positive effect while at the same time lack of interpersonal skills had also found to contribute to poor performance (Gu & Chi, 2009).

An empirical study was carried out by Sarmiento and Beale (2007) on the determinants of perceived job performance in a sample of shop-floor employees in a manufacturing plant in northern Mexico. In the study, variables like job satisfaction, age and education were hypothesized to have effect on employee job performance. The study demonstrated that job satisfaction was again found to have positive relationship with job performance as evidenced in the past studies. On the other hand, this study had found no significant relationship between age and education with shop floor employees' performance. Sarmiento and Beale (2007) further noted the relationship between education and job performance seems to have a negative relationship. Similarly, study on nurses' job performance by Al Ahmadi (2009) found that education and job performance to have negative relationship. On the contrary, a study by Ng and Feldman (2009) revealed differing results in which education found to be positively related to the employee job performance.

Research by Karatepe, Uludag, Menevis, Hadzimehmedagic and Baddar (2006) in Northern Cyprus was to look at the relationship between several variables such as competitiveness, self-efficacy and effort with employee job performance. The results indicated that self-efficacy, competitiveness and

effort had a significant positive effect on the job performance of the frontline employees.

Similarly, the effect of self-efficacy was also investigated by D'Amato and Zijlstra (2008) among the hospital employees in Italy. They had also found that self-efficacy together with psychological climate have positive effects on the work outcome in terms of job performance. In a separate study, an attempt was made to examine the causal relation between role stress, customer orientation, selling orientation, and job performance of retail salespeople. The study revealed that role conflict and role ambiguity affected customer orientation and finally affected job performance when mediated by customer orientation (Knight, Kim & Crutsinger, 2007).

Meanwhile, the research was also conducted to determine whether job demands and job resources could affect the job performance while being mediated by burnout among the front employees working in the banking sector (Babakus, Yavas & Ashill, 2009). The study also examined the moderating role of customer orientation in the relationship. The results showed burnout mediates the effects of job demands and job resources on job performance and turnover intentions. Customer orientation was related directly to burnout and job performance and act as a buffer to the dysfunctional effects of job demands on burnout and job performance.

In order to determine whether motivation, ability and role perception can be the predictors of job performance, an investigation was carried out on seven

Ethiopian public organisations. The study revealed no significant relationship between ability and employees performance as compared to motivation and role perception, which had a positive effect on performance. The results had also demonstrated that even though motivation can affect the performance of employees, its effect will decline as the employee years of experience starts to increase (Hailesilasie, 2009).

Job performance is further studied in relation to personality factors. A study by Sawyerr, Srivinas and Wang (2009) was carried out among the call centres employees, to explore the relationship between personality factors (of the five-factor model) and performance using job service performance as indicators and on the role of emotional exhaustion in this relationship. Using structural equation modelling as the data analysis tool, the study revealed with the exception of extraversion/introversion, the rest of the personality dimension of the five factor model which consist of conscientiousness, agreeableness, openness to new experience and emotional stability as well as locus of control had shown to be significantly related to one or more of the performance measures. At the same time, the study also demonstrated the relationship between emotional stability, locus of control and intention to leave was mediated by the emotional exhaustion.

In addition, in order to see the relationship between personality and job performance and the moderating effect of cognitive ability in the relationship, an investigation was carried out by Wright, Kacmar, McMahan and Deleeuw (1995). The study was carried out on a group of 203 warehouse employees

using personality tests with aptitude as the predictors of performance. Findings from this study revealed that cognitive ability explained a significant 2 percent of the variance in performance. Nevertheless when cognitive ability interacted with personality, there was a significant incremental of 9 percent of the variance in performance. This has shown that although personality can influence job performance, the relationship will become more significant due to cognitive ability.

Research on job performance was also done among the Russian employees. The behaviour of 1500 Russian workers in relation to attitudes and performance was studied by Linz and Semykina (2008). The aim for this study was to extend the previous studies on the relationship between locus of control and job performance. The results indicated a significant difference between internal and external locus of control in relation to employee job performance. Those individual that demonstrated internal locus of control tend to perform better but the influence of locus of control on performance was found to vary according to gender, region and supervisory position. At the same time it was also found that locus of control influence on job performance is rather small among the respondents that were surveyed.

Investigation by Theodosiou and Katsikea (2007) on the export sales managers' performance was done using various behaviour-based control and job related characteristics. It was revealed that factors such as team orientation, intrinsic motivation, recognition motivation, professional competence, sales support orientation, and customer orientation can

influence the job performance of those exports sales managers and the factor psychic distances do moderate the relationship between those behaviour-based control factors and performance.

Study by Medlins and Green (2009) was conducted to examine the relationship between goal settings, employee engagement, and workplace optimism with individual job performance. It was hypothesized that goal setting to be positively impacting employee engagement, employee engagement as positively impacting workplace optimism, and workplace optimism as positively was impacting individual performance. The study indicated all hypotheses were supported and concluded that individual job performance can be influenced by those three variables.

The above-mentioned literatures on job performance research had shown that many factors could influence the job performance of employees. Nevertheless, the above-mentioned studies were not specifically tailored to the studies related to the job performance of employees in the service sector SMEs. As suggested by the theory of performance Campbell et al. (1993), performance component is a function of declarative knowledge, procedural and skills knowledge and motivation (Campbell, 1990; Campbell et al., 1993). In other words, in order to perform the behaviours in one of the dimensions, a person needs to know what to do (having clarity on job expectation), how to do it (possessing the competency) and possess the desire to do it (being motivated).

Hence, this study will add onto the previous studies by looking at three other variables comprised of role ambiguity, competency and person-job fit to determine their relationships with the job performance of employees in the service sector SMEs.

## 2.5 Role Ambiguity

Role ambiguity has constantly been the focus of studies in the field of human performance. Logically employee can only experience one or the other end of the continuum as when work is performed since the opposite end of role ambiguity is role clarity. Jackson and Schuler (1985) stressed on the importance of having clear understanding of one's role from an individual perspective as it is said to have an influence on one's motivation, satisfaction and performance.

Furthermore, there were various types of effects resulted from one experiencing role ambiguity ranging from increased psychological stress (Lang, Thomas, Bliese & Adler, 2007), effects on interests, innovation, self-actualization, autonomy, self-esteem, tensions, physical stress and intention to leave (Beard, 1999; Ivancevich & Donelly, 1974) to level of satisfaction (Busch & Bush, 1978). Given such impacts, role ambiguity can have a serious long-term effect for the success of the job performance of employees.

### 2.5.1 Definition of Role Ambiguity

There were many attempts to delineate the meaning of role ambiguity. Ilgen and Hollenback (1991) defined roles as the pattern of behaviours that are expected or required by the members of an organisation. Kalbers and Cenken (2008) related role ambiguity to lack of confidence that an employee perceives of his or her responsibility. Role ambiguity is also often seen as having lack of role clarity (Shepard & Fine, 1994).

In another perspective, role ambiguity is said to occur as when insufficient amount of information are given to an individual to perform a role and commonly seen as a condition when disagreement happens in the work of community with little understanding on the employee side of what are expected for (Fisher & Gitelson, 1983; Jackson & Schuler, 1985). Meanwhile Babin and Boles (1996) viewed role ambiguity as a condition when employees having either lacking in information pertaining to appropriate actions to be taken in a given situation or not having clear knowledge of the management expectations.

In addition, role ambiguity is also defined as the occurrence of insufficient information pertaining to powers, authority and duties to perform one's role (Kahn, Wolfe, Snoek & Rosenthal, 1964). This infamous seminal work of Kahn et al. (1964) has sets forth the meaning of role ambiguity. The definition given by Kahn et al. (1964) was originated from the formation of a theoretical framework that described two major types of role ambiguity. The first type of

role ambiguity known as the task ambiguity happens when employee having lack of information pertaining to the job, its goals and on how the job can be accomplished. As for the second type, known as the socio-emotional ambiguity which Kahn et al. (1964) described as the condition where employee having concern of what others think of them and how their actions can have consequences on their goal attainment.

In the same study, Kahn et al. (1964) also discussed further about three forms of task ambiguity, which comprised of scope of responsibility, means-end knowledge and priority of expectation. The scope of responsibility was mainly a form of ambiguity that relates to employee having lack of clarity in terms of the rights, duties and responsibilities expectations. As for the means-end knowledge, it was referred to as having uncertainty in relation to activities that is required to fulfil one's responsibilities and how these responsibilities can be best carried out. Meanwhile concern on priority of expectation was looking at how employees may have apprehension on whose and which expectations to be given a priority in carrying out day-to-day work.

Similarly Singh, Verbeke, and Rhoads (1996) generated four dimensions of role ambiguity which comprised of process ambiguity (a person should get things done and how to achieve the organisation's objectives), priority ambiguity (when things should be done), expectation ambiguity (what is expected and what employee should be doing) and behaviour ambiguity (how employee is expected to act in various situations).

Perhaps one of the famous definitions of role ambiguity after the work of Kahn et al. (1964) was given by Rizzo et al. (1970). They mentioned that role ambiguity occurred when one is not equipped with good understanding about job responsibilities and having little knowledge of what is expected in relation to job performance. On the other hand, role clarity occurs when an employee is clear about behavioural expectations that assist in giving the necessary knowledge of what is consider as acceptable behaviour (Rizzo et al., 1970). Since the opposite end of role ambiguity is role clarity, one can only experiences one or the other as when work is performed (Rizzo et al., 1970). Similarly, Kahn et al. (1964) defined role clarity as the belief of an individual on the expectations and behaviours that are associated with work related role. This current study adopted the definition of role ambiguity by Rizzo et al. (1970).

### 2.5.2 Past Research on Role Ambiguity

In the past, role ambiguity as a variable had received many attentions and secured a prominent position in many empirical researches (King & King, 1990; Ortqvist & Wincent, 2006; Tubre & Collins, 2000) and in various perspectives. Role ambiguity was found to have decreased job performance, satisfaction and commitment (Chang & Chang, 2007) while studies by Thompson, McNamara and Hoyle (1997), Wolverton, Wolverton and Gmelch (1999) and Koustelios, Theodorakis and Goulimaris (2004), had focused on role ambiguity in relation to education.

The tendency for employees in the service setting to experience role ambiguity was investigated by Singh (1993). According to Singh, this was mainly due to them having to engage constantly in high interactions with their environment, having to deal with non-programmable decisions and perhaps being expected to hold a variety of role from the internal or the external members of the organisation.

The importance for boundary workers to be cleared concerning their job requirements and expectations plays a crucial part in the success in delivering good services. This is because the boundary workers in the service sector have high customers contact. Therefore, in order to determine the importance of employee possessing role clarity and its relationship with their work performance, a study was carried out. The study revealed that when workers experienced role ambiguity, they tend to experience poor job performance and this condition had shown that role ambiguity and job performance possessed a negative relationship. The same study also revealed that role ambiguity had a negative influenced on the job satisfaction of employees as well as on their organisational commitment (Rhoads, Singh & Goodell, 1994).

Using the seminal work Khan et al. (1964), Smith (2009) found that there was a significant relationship between emotional reactions and job ambiguity. Employees that experienced role ambiguity tend to have uncertainty attached to scope of responsibilities, about others expectations on them and ways to achieve task success. The study also found that emotional tension increased when ambiguity increased and ambiguity had also reduces job satisfaction. At

the same time, the same study revealed that when employee experiences role ambiguity, they tend to display lower self-confidence, which may have resulted in ineffective performance at workplace. Therefore, it can be concluded that when one experiences role ambiguity, one feel more stressful while role ambiguity will result in lower job satisfaction and self-confidence.

Negative correlations were found between role ambiguity and quality of services when the factor was examined in relation to the performance of salespeople. It was found that employees tend to produce poorer quality of service when they experienced role ambiguity (Wetzels, Ruyter & Bloemer, 2000). Perhaps the results obtained by Wetzels, Ruyter and Bloemer (2000) occurred simply because when employees are unsure of what was being expected, motivation to exert greater effort in delivering good service will tend to be diminishing and ultimately service performance tend to suffer.

Study on role ambiguity and its relationship with gender was conducted by Busch and Bush (1978). The study attempted to determine the differences between females and males in the industrial sales force by comparing role clarity, six job satisfaction components, and value importance of the job components, performance and propensity to leave the organisation. Results showed that women tend to experience greater ambiguity pertaining to their role and in turns leading to them having higher propensity to leave their job as compared to men. This was mainly due to women may be less willing to ask for help and to ask questions as they were afraid of their inquiries being perceived as signs of weakness (Busch & Bush,1978).

The above literatures revealed that role ambiguity had often been associated with many factors related to employees. The following section reviewed literatures on the relationship between role ambiguities with the job performance of employees.

### 2.5.3 Role Ambiguity and Job Performance Link

Role ambiguity is commonly associated with employee job performance. When employees experience role ambiguity, they tend to perform at lower levels (Bhuian , Menguc & Borsboom, 2005). Likewise, employees will be able to perform well should they have clear job understanding of what is expected and required from them (Babin & Boles, 1998).

The relationship between ambiguities with job performance had been widely studied in past researches. Nevertheless, there were often found to have mixed empirical evidence between role ambiguity and performance (Singh, 1993). A meta-analysis based on the work of Jackson and Schuler (1985) by Tubre and Collins (2000) found that in order for an individual to carry out a task effectively, sufficient information is imperative. This is due to the occurrence of ineffective performance when there is a lack of information regarding what need to be achieved and the most effective work behaviour that can help to achieve that. Although most researchers had found negative relationship between role ambiguity and job performance, the strength of association between role ambiguity and job performance varies widely

according to types of occupation and performance measure (Jackson & Schuler, 1985).

The job performance of front service employees was studied by Singh and Rhoads (1991). It was revealed there were several types of role ambiguity that service employees can experience such as with their superiors, the company, ethical issues, customers, co-workers, family and other managers. Results have shown that these factors can affect employee's job performance negatively. An empirical work of Abramis (1994) further strengthened the studies by Singh and Rhoads (1991) when found evidence that role ambiguity resulted in the reduction in work performance.

Role ambiguity was also studied in the opposite end of the continuum, which is the role clarity. A study by Murkherjee and Maholtra (2006) with the aim to evaluate the effect of role clarity and its antecedents and consequences on employees of frontline staff in a call centre revealed the importance of role clarity in determining the service quality performance with role clarity is strongly related to service quality performance. Therefore, the study conveyed that there be role ambiguity existed among the employees; they will not be able to deliver effective job performance.

In addition to this Hall (2008) conducted a study on a comprehensive performance measurement system effects on managerial performance with role clarity (goal and process clarity) and psychological empowerment mediating the relationship. In terms of role clarity, positive relationship was

shown to exist between goal clarity and managerial performance but absence of relations was found between process clarity and managerial performance. On the other hand, dissimilar results were obtained from some previous studies in which role clarity was found not to have a relationship with one's job performance, which means whether one is clear about his or her role or not has no relationship with one's job performance (Michaels, Day & Joachimsthaler, 1987; Wetzels, Ruyter & Bloemer, 2000). Anyhow, research by Kahn et.al. (1964), House and Rizzo (1972), as well as by Zeithaml, Berry and Parasuraman (1988) found otherwise. Their findings revealed that role ambiguity had negatively affected the job performance of employees.

In an attempt to explain the perception that athletes may have pertaining to their role judging from the amount of coaches and feedback that they have obtained, Beauchamp, Bray, Eys and Carron (2005) found that when training instruction was being analysed in relation to role ambiguity, the relationship was found to be significant. The study demonstrated that players' role ambiguity could be reduced if training and instructions from their leader exists. This result implied that training and instruction increases clarity and thus reduces role ambiguity which will in turns resulted in higher performance among the athletes.

A cross-cultural study to compare whether role stressors such as role ambiguity and role conflict can influence the work outcome among salespeople in the US, Japan and Korea was carried out by Dubinsky, Michaels, Kotabe, Chae and Hee-Cheol (1992). The finding revealed that role

ambiguity had a significant negative relationship with the job performance of the employees and there was no difference in the magnitude of the coefficients when comparing between the three sample nations.

Additionally Dubinsky and Mattson (1979) examined the relationship between role ambiguity and role conflict with the job satisfaction, job performance and organisational commitment among the retail salespeople. The study found that role conflict and role ambiguity had an inverse relationship with job satisfaction of retail salespeople, organisational commitment and job performance. Meanwhile Jackson and Schuler's (1985) study had shown that when employees being ambiguous they tend to display less effective effort which goes to show that employee performance is being influenced by them being cleared with expectations. Furthermore, Fimian (1984) established a finding that the job performance of employee will be reduced when role ambiguity exists which was caused by the increase in the stress and burnout level due to lack of sufficient information to carry out their tasks.

On the other hand, Behrman, Bigoness and Perreault (1981) carried out an empirical research that investigated the potential sources of role ambiguity and their effects on job satisfaction and job performance of salesperson. It was revealed that there is a positive relationship between job performance and ambiguity concerning family expectation. In addition, the same study revealed ambiguity regarding sales manager and customer expectations is negatively related to job performance. It was also discovered when there are ambiguous managerial expectations; lower level of satisfaction was recorded.

This effect of role ambiguity on job satisfaction and job performance was similarly found by Kahn et al. (1964) as cited by Walker, Churchill and Ford (1975), when employee experiences so much uncertainty about what is expected in performing a job, high level or anxiety and tension will develop which in turn reduces job satisfaction and this will then affect job performance.

Although role ambiguity was found to have negative relationship with job performance (Lysonski & Johnson 1983; Behrman & Perreault 1984), Jackson and Schuler's (1985) meta-analytic studies found the effect of role ambiguity on job performance as rather weak and this was further supported by similar findings by Berkowitz (1980) and Fisher and Gitelson (1983). In addition, studies by Bagozzi (1978), Szilagyi (1977) as well as Hampton, Dubinsky and Skinner (1986) had all found no association between role ambiguity and job performance, which is contradicting with the result done by Bagozzi (1980) where role ambiguity had been found to have association with the job performance of employees. Given the above literatures that have resulted in mixed findings and at the same time there seems to be lack of evidence concerning research in the context of SMEs, it is therefore necessary for the variable to be examined again in the context of service sector SMEs in Malaysia. Thus, this study hypothesizes that there is significant relationship between role ambiguity and the job performance of employees (details of the hypothesis can be found in Chapter 3).

## 2.6 Competency

The idea of competency was mooted in the early 1970s when David McClelland the then distinguished professor from Harvard was requested by the United State Information Agency (USIA) to probe into the persistent problems that the agency was facing concerning selection procedures. The selection procedures of the agency had a tendency to do away with blacks and minorities and very often chosen people does not perform as expected.

In his attempt to investigate what when wrong, McClelland had to carefully observe on job performance and to identify the best practice of those who were successful in their job in terms of how things are done and why they are done in that way, which in other word McClelland was trying to identify and generate the predictors of job performance (Dubois, 1993). At the end of his research, McClelland discovered that competencies such as interpersonal sensitivity, cross-cultural positive regards and management skills were the factors that differentiated between a successful performer and an average performer concerning the agency Information Officer positions (Dubois, 1993). McClelland concluded that when predicting job performance, people must be evaluated based on their competencies (McClelland, 1973; Heffernan & Flood, 2000; Horton, 2000).

Study on competency was followed by Richard Boyatzis, and under the guidance from McClelland published a book known as “The Competent Manager” in 1982 that had been referred to by many scholars of

competencies where Boyatzis expressed that managers will have a model of management either explicitly stated or documented in published organisational documents (Boyatzis, 1982).

Boyatzis (1982) further went on to develop a model known as the “Model for Effective Performance”. This model stipulated that for an effective performance to happen, there are three elements that must be present at the same time (overlapped). Those three elements are the functions and demands of the job, the organisational environment, and the individual’s competencies. The greater the overlapping of these elements the greater it will in increasing the effectiveness on the job. In conclusion whether a person is able to do or unable to do a job can be determined by competencies which in turn are useful in the quest for performance improvement (Boyatzis, 1982; Spencer & Spencer, 1993; Dubois, 1998; Green, 1999; Lucia & Lepsinger, 1999).

Delamare Le Deist and Winterton (2005) cited that past literatures often view competency as the combination of job-related or functional competencies with underpinning behavioural competencies. McLagan (1997) also mentioned that competencies that are the result of job analysis provide information that would be able to relate work and people together for the purpose of performance improvement. Previous studies by Organ (1988), Organ and Konovsky (1989), and Podsakof and Mackenzie (1989), discovered that when competencies were aggregated over time and persons, it will lead to the improvement of the organisational efficiency and effectiveness. Their discovery was further

supported by Cheng, Dainty and Moore (2003) where competency is said to be necessary for organisation development and shall become a powerful tool for effective human resource management practices (Armstrong, 2003) which will eventually lead to firm performance (Lado & Wilson, 1994) and sustaining firm competitive advantage (Barney, 1991).

In relation to individual performance, competency is set to become the benchmark (yardstick) against an individual performance which allow assessment of performance to be done at any point of time and to have a continuous performance management (Moore, Cheng & Dainty, 2002). In other words through competencies, an individual performance can be made known and many organisations have found to adopt competence based training as a technique to improve the job performance of managers in which many time the need to look at employee performance from the competency perspective arises when the required competency for efficient job performance is lower than the one possessed by the employee (Agut & Grau, 2002).

### 2.6.1 Definition of Competency

Competency has been the study interest in many past researches. According to Mone and London (1998) as cited by Mohd Noor and Dola (2009) competency can be categorized into three main types comprises of job specific competency (those competencies that are needed in order to perform a job well), relational competency (those that are considered as people

related competencies) and personal attributes competency (relates to intrinsic competencies from the inner drive of behaviour, motive, trait or social role)

Competency can have many meanings ranging from seeing organisation performing well to the basic qualities that should be possessed by an employee, knowledge, skills, characteristics and attributes that are necessary to perform a task (Yang, Wu, Shu & Yang, 2006). In case of Henderson's (2000) perspective, competency is viewed as a blend between knowledge and skills that are required by one to perform an assignment in which the person must be able to collect, process, assess, and make decision from the collected data as a way to accomplish the assignment as expected. On the other hand Blanchard and Thacker (2005) considered competency as a cluster of related knowledge, skills, and attitudes that normally able to differentiate the high performer from an average performer.

Additionally, Rothwell (2002) delineated a good meaning of competency in which it was seen as a balance that occurs between a person's attitudes, feelings, and being motivated in the knowledge and acquisition skills, which linked to the person rather than to the jobs. Moreover, these competencies would be able to demonstrate easily the characteristics possessed by effective performers in a dynamic working environment. Therefore for effective job performance to occur, the core competencies that must be acquired by all employees would include knowledge, skills and abilities (commonly referred to as KSAs), as well as soft skills or behaviours (Lucia & Lepsinger, 1999; Rodriguez, Patel, Bright, Gregory & Gowing, 2002; Rothwell, 2002).

Sparrow (1997) in reviewing the use of organisational competencies in personnel selection and assessment, defined competencies as people's behavioural collections, i.e. their sets of behavioural patterns, which are related to work performance and distinguish excellent from average performers. In addition Athey and Orth (1999) defined competency as job related with a set of observable performance dimensions, including individual knowledge, skills, attitudes, and behaviours, as well as collective team, process, and organisational capabilities that are linked to high performance, and that provide the organisation with sustainable competitive advantage.

On the other hand, Marrelli (1998) viewed competencies as measurable human capabilities that are required for effective work performance demands. Competency is also referred as a set of characteristics which consist of knowledge, skills, mind-sets, thought patterns, and the like-that, when used either singularly or in various combinations, result in successful performance Dubois (1998). In addition to this, Jackson and Schuler (2003) viewed competencies as "the skills, knowledge, abilities and other characteristics that someone needs to perform a job effectively".

Draganidis and Mentzas (2006) regarded competencies as the combination of tacit and explicit knowledge, behaviour and skills, which gives someone the potential for effectiveness in task performance. Furthermore, according to Long (1977), competency is viewed as those activities and skills seen as necessary for one to perform duties. On the other hand, competency is

defined as the performance of duties that derived from an individual ability to accomplish a specific job related task that comes with a position (Tas, 1988).

A very direct approach was given by Armstrong and Baron (1995) in which competency is said to be about what a person need to know and how the person need to do it. In addition, Armstrong (2000) stated that competency is a process of profiling key result areas or principal accountabilities of the jobholder, competencies and critical output can be obtained. In other words, the jobholder must be able to possess the ability and attributes to perform a task successfully.

Hoffman (1999) carried out a review of literature whereby competency is viewed from three perspectives; first as an observable performance (Boam & Sparrow, 1992; Bowden & Masters, 1993); second as the standard or quality of the outcome of the individual's performance (Hager, Athanasou & Gonczi, 1994; Rutherford, 1995) and third as the underlying attributes of person (Boyatzis, 1982; Sternberg & Kolligian, 1990).

One of the most well known definitions of competency and used by many scholars would probably be the one by the work of Boyatzis (1982) whereby competency was described as the underlying characteristics of an individual, which are causally (change in one variable cause change in another) related to effective job performance. Boyatzis (1982) further stated that a job competency represents ability. In other words, when individuals possessed a

competency, it goes to show that an individual is capable of fulfilling task requirements.

Therefore, a job competency may be a motive, trait, skill, aspect of one's self-image or social role, or a body of knowledge that an individual uses, and the existence and possession of these characteristics may or may not be known to the individual. In addition, Mitrani, Dalziel, and Fitt (1992) had a similar view where competencies are regarded as the motives, traits, self-concepts, attitudes or values, content knowledge, or cognitive or behavioural skills.
In synthesizing all the previous literatures on the definition of competency, this study defined competency as the basic qualities that must be possessed by employees such as the knowledge, skills, characteristics and attributes in order to perform a task.

### 2.6.2 Past research on Competency

Competencies have been researched in various industries mostly from the managerial perspectives focusing on identifying competencies needed mostly by them. Zhao and Du (2007) in assessing the competencies of the professional managers, found that managers must possess abilities of scientific decision, communication, organisation, learning, and social activity. Using the Behavioural Event Interview (BEI), Zhong and Shi (2004) had conducted a study on the competency model of senior managers in China's family firm while similar approach was also studied by Shi, Wang and Li (2002) in the telecommunication industry of China.

Competency was also studied by Siu (1998) that looked at whether all middle level managers possessed similar competencies while Peppermans, Mentens, Goedee, Jegers and Van Roy (2001) studied on junior managers using observation and interviewing method. Competency was also studied widely on the research and development (R&D) employees in Taiwan with the intention to identify the core competencies among them (Lee, 2010; Wu, 2009). In addition, Cardy and Selvarajan (2006) explored on the various issues pertaining to competency in an attempt to justify the utilization of employee competencies as a mean for competitive advantage for organisations.

In order to study about the competencies model among the managers of restaurants and hotels, Agut, Graub and Peiro (2003) selected 80 senior managers in restaurants and hotels in Spain. The study revealed that technical managerial competency needs are mainly in computing, languages, and economic-financial management competencies. The same study also found that generic managerial competency needs are those related to job performance efficacy, self-control and social relationships. Meanwhile, when Wang and Chen (2002) analysed competencies of junior managers and senior managers in China, the finding revealed that the competencies of managers comprised of two dimensions, which consisted of management quality and management skill.

On the other hand, Lawson and Limbrick (1996) assessed competency of the top human resource managers which included several types of competencies

such as objective and activity management, human resource management technique, functional and organisational lead, influence management, and commercial knowledge. Meanwhile Sandwich (1993) used competency model for organisational training in a large organisation where five elements of competencies for managers were highlighted which consist of concept, leadership, interpersonal relationship, administration, and technology.

In a meta-analysis, Spencer and Spencer (1993) examined more than 200 occupations in industries and organisations, including science and technology field, education field, manufacture industry, distribution industry, services, government institutions, military, medical and health care, and religion. In this study, analyses were carried out on the amounts of activities related with excellent work performances with review made on past studies that covers the work of twenty year. Finally, the study proposed five universal competency models for various profession specifically special technologists, salesmen, community workers, managers, and entrepreneurs.

The effects of the commitment-control linkage on the competency management approach while assessing the mediating effect of attitude, subjective norm and perceived behavioural control in the implementation of competency management was explored by Heinsman, de Hoogh, Koopman and Van Muijen (2008). The study revealed that the use of competency management is higher within a commitment than within a control approach. In addition, the relationship between the commitment approach and the use of competency management was mediated by attitude and perceived

behavioural control. Separately, Fjelstul and Teson (2008) studied on the competency requirement for those entries level supervisory employees in the golf and club management industry. Their studies revealed that their competencies requirements were similar with those current managers and comparable with those that served in the hospitality industries.

The above literatures revealed that past studies on competency had often concentrated on the identification of the various types of competencies needed by employees as well as on the development of competency models. The following section reviewed literatures on the effect of competency on the job performance of employees.

### 2.6.3 Competency and Job Performance Link

McClelland (1973) pointed out that competencies and individual characteristics predict successful job performance. Competencies are useful in order to enhance human performance at work (Hoffman, 1999). Parry (1998) concluded that competency correlates with job performance that can be measured and enhanced through training. Likewise, job performance and competency had been found to have positive relationships (Dhanakumars, 2001; Linders, 2001). Similarly study by Heffernan and Flood (2000) had found a positive relationship between competency and job performance while Armstrong (2006) suggested that competency could contribute to the high levels of performance among individuals as well as organisation.

In a move to access the competency of frontline employees at the high customers contact areas of Ethiopian corporations, a study was carried out by Potluri and Zeleke (2009). The study revealed that most employees working at the front desk service areas did not demonstrate most of the basic marketing competency indicators. As a result, most customers were not satisfied with the service provided by the Ethiopian companies and ranked its service quality as poor. This study goes to show that in a service setting, the competency level of employees is critical while serving customers, as absence of the right competencies results in dissatisfaction among the customers.

In Thailand, Vathanophas and Thai-ngam (2007) conducted a study on the Thai public sector performance. The purpose was to identify the key competency factors that top performers possessed in carrying out their job using the Behavioural Event Interview by Spencer & Spencer (1993). The study managed to identify twenty-three competency factors comprised of “concern for order”, “quality” and “accuracy” that top performer (superior performers) possessed that allowed them to do a good job.

Competency was also studied by Vakola et al. (2007) using a case study approach from the banking sector. It was done with the intention to find out the right approach of competency modelling that can be used in line with strategic business needs that are geared for long-term success. At the end of the study, they have managed to propose a competency based approach to performance management. The ability to identify the types of job

competencies that must be possessed by managers in order for them to perform their job, methods of learning used in order to acquire those competencies and whether those managers do have self-directed learning attributes was the research interest of Hashim (2008). The study that was conducted in Malaysia revealed that in order for the managers to perform well, they must possess the necessary competencies comprised of communications, managerial and job knowledge.

In an attempt to show that competencies can produce effective work, Kagaari and Munene (2007) conducted a study among the engineering lecturers at Kyambogo University. The result revealed that lecturers with relevant competencies were able to deliver effective work outcome. Tzeng (2004) carried out an investigation among the nurses in Taiwan nurses in which they were requested to self-assess their own competencies, job demands and job performance. The study revealed that there was a relationship between competency and job performance.

Even though there were many past researches conducted in relation to competency, most of them were looking at ways to identify required competencies using various types of competency modelling. Moreover, most researches on competencies conducted on small firms were looking at firm competencies rather than employees' competency. In addition, majority of the studies were either focusing on managers as their unit of analysis or identifying the types of competencies that should be possessed by members of the organisation. This has therefore created a gap concerning the needs to

conduct studies on other employees than the managers of an organization. It is therefore necessary to look at whether competencies can affect the job performance of employees as in whether having the relevant competencies can enhance their performances. At the same time, although there were widespread uses of competency as a variable for study, there seems to be lack of empirical evidence found to show the linking between competency and job performance in the context of employees working in the service sector SMEs.

Thus, to the best of the author's knowledge, there are lack of studies on the outcome of the relationship between competency and job performance among the employees especially those in service sector of SMEs. Given the inadequate research on the relationship between competency and job performance in the context of service sector SMEs, thus it is hypothesized that competency is related to the job performance of employees (details of the hypothesis can be found in chapter 3).

### 2.7 Person-job Fit

Many past literatures of psychology placed strong interests in the employee fit concept (Porter 1962; Locke, 1969; Schletzer, 1966; Beer, 1996). In general, the fit notion could mean the congruence or compatibility that may exist between an individual (value, needs, preference, abilities) with the organisation (culture, environment, group) and the job (Lawrence, 2004). Person-job fit has been extensively studied by past researchers (Sekiguchi,

2004). Caudron (1997) observed that employees would like to have jobs that is significance and meaningful and able to provide satisfaction internally as well as with external rewards. In addition the belief that a good fit between employees and their work as very important has been advocated by most organisational behaviour theorists (Kristof-Brown et al., 2005).

### 2.7.1 Definition of Person-Job Fit

It is necessary to understand the conceptualization of fit before detail discussions are carried out on person-job fit variable. Conceptualization of fit can be explained based either on the supplementary versus complementary view or on demands-abilities vs. needs-supplies view, which is also known as supplies-values fit (Kilchyk, 2009). Muchinsky and Monahan (1987) had also delineated that work fit can be described from two dimensions which the first one is the supplementary versus complementary while the second one is the demand-abilities versus needs-supplies.

A supplementary fit is a condition in which the characteristics of a person are similar to the environment of an organisation or with other people (Sekiguchi, 2003). It is also frequently described as a person-person fit (Sekiguchi, 2003). On the other hand, complementary fit occurs when the characteristics of an individual fills up a void/space of the organisation thus complementing and making the organisation more complete (Muchinsky & Monahan, 1987). Since the focus of supplementary fit, which was described by Muchinsky and Monahan (1987), is looking at the fit between a person and the environment

not the job, thus it does not apply to person-job fit (Sekiguchi, 2004). Therefore, it is common to see past literatures on person-job-fit were explained using the conceptualization of complementary fit (Kristof-Brown et al., 2005).

The extension of complementary fit perspective gives rise to a view, which is the demands-abilities versus needs-supplies. Demand abilities fit occurs when the skills and abilities of an individual fulfils the requirements of the environment (Kristof-Brown et al., 2005). Job demands in this context refers to the requirements that must be fulfilled as adequate job performance (French, Caplan, & Harrison, 1982) thus making person-job demand ability fit a strong prediction of job performance (Waldman & Spangler, 1989). In other words, the knowledge, skills and abilities (KSAs) of an employee matches with the needs of the employer or those that are needed to perform tasks at an acceptable level of the job (Caldwell & O'Reilly, 1990; Wilk & Sackett, 1996). This further means individual possesses the abilities by a particular entity such as job, vocation or organisation demands (Kristof, 1996). Possessions of abilities are inclusive of education, experience and employee attitudes and knowledge (French, Caplan & Harrison, 1982; Dawis & Lofquist, 1984; Caldwell & O'Reilly, 1990).

On the other hand, need-supplies fit occurs when an organisation is able to fulfil or supply the requirement of an individual such as financial, physical and psychological needs (Edwards, 1991). This is also known as supplies-values fit, has been the emphasis of various theories of adjustment, well-being, and

satisfaction (Locke, 1969; Caplan, 1987) and has been applied to person-job fit (Cable & DeRue, 2002).

Ensuing was one of the well-known meanings of the conceptualization of fit given by Kristoff (1996). In their conceptualization, fit is defined from an overall perspective in which Kristoff (1996) provided fit's definition by using the terms person-organisation fit which inculcate all viewpoints in considerations. Therefore, person-organisation is described as the compatibility that occurs between people and organisation. This compatibility takes place when at least one entity provides what the others need or the entities shared similar fundamental characteristics or both at the same time. Kristoff (1996) further explained that the person-organisation fit definition could represent other types of components in which "organisation" can be replaced by other types of fit interest such as job, environment, peers etc. In fact, the person organisation fit is a concept that is related to Lewin's (1935) fundamental concept of person-environment fit that states that individual behaviour is a combined function of the individual and his (her) environment.

Thus, in view of all the concepts of fit, person-job fit is defined as the compatibility that may exist between a person and the specific job demand (Kristoff, 1996, Cable & DeRue, 2002). A job is defined as the tasks that a person is expected to perform in exchange for employment (Kristoff, 1996). Hence, person-job fit focuses on the match that may exist between job requirements and individual skills and knowledge (Kristoff, 1996) or the KSAs of a job (Edwards, 1991) and have been frequently conceptualized as the

demand-abilities fit in various literatures (Cable & DeRue, 2002).Therefore based on the work of conceptualization of fit by Munchinsky and Monahan (1987) and the definitions given by Kristof (1996) and Edwards (1991), person-job fit is hereby defined for this study (from the demand-abilities fit perspective) as the matching that exist between the skills, knowledge and abilities of the employees in order to perform a specific job related tasks.

### 2.7.2 Past research on Person-Job Fit

Edwards (1991) mentioned that most empirical researches on person-job fit had focused on the fit between employees' desires (employee related) and demand (job related). Collectively research by Caldwell and O'Reilly (1990), Edwards (1996), and Saks and Ashforth (1997) had found person-job fit to be linked with various variables such as job satisfaction, commitment and performance.

In order to assess the relationship between job information sources, self-esteem, and applicant's subjective perceptions of person-job and person-organisation fit prior to joining the organisation and their post-entry work products after 4 and 10 months of on the job experience a longitudinal study was conducted by Saks and Ashforth (1997). The results of their study revealed that applicants' perceptions of person-job fit and person-organisation fit is related positively with the greater number of formal job information sources. At the same time, stress also found to be related positively to person-job fit. In relation to job satisfaction, organisational commitment (4

months) and organisational identification, the study had shown a positive relationship. On the contrary, relationship between person-job fit with intention to quit and stress symptoms (10 months) found to be negatively related. The result for this research is rational because when a person is given ample information, the person tends to be more comfortable with the job as it can match the job requirement and job knowledge as noted by Kristoff (1996).

In order to determine the influence of psychological contract as a mediator in the relationship between person-organisation fit, person-job fit and the organisation affective commitment, an examination was carried out on 960 participants from 16 large companies in the United Arab Emirates (UAE) (Behery, 2009). It was revealed that organisation affective commitment was positively relate to person-organisation and person-job fit. At the same time, psychological contract partially mediated the relationship between both person-organisation and person-job fit with organisation affective commitment.

A cross research was conducted between two countries - Turkey and the United States with the intention to examine person-organisation fit and person-job fit as moderators of the relationship between proactive personality and intrinsic career success (job and career satisfaction). The findings from this study demonstrated that in Turkey, proactive personality was positively related to job satisfaction only for individuals with high person-organisation fit. In addition, it was found that proactive personality was positively related to career satisfaction among individuals having high person-organisation fit and

high person-job fit. On the contrary when the same study was conducted in the United States, there was no support found (Erdogan & Bauer, 2005)

Person-job fit was also studied in relations to organisational attraction and job acceptance intentions in employee selection. In a form of longitudinal study by Carless (2005), the aim was to observe relationship that may exist between person-job fit and person-organisation fit with intentions (to accept offer and actual decision on job offer) with organisational attraction as the mediator. The hypothesis that perceptions of person-job fit and person-organisation fit will influence attraction at different stage was supported. Anyhow, the relationship between person-job fit and person-organisation fit with intentions (to accept offer and actual decision on job offer) was partially mediated by organisational attractiveness at various level of selection.

In a separate study, a meta-analysis was conducted by Kristoff - Brown et al. (2005) to determine whether there is a relationship between person-job, person-organisation, person-group, and person-supervisor fit among pre-entry (applicant attraction, job acceptance, intent to hire, job offer) and post-entry (attitudes, performance, withdrawal behaviours, strain, tenure) individuals at work and their criterion. The findings revealed that job satisfaction is significantly influenced by person-job fit, whereas organisational commitment is found to be by influenced by person-organisation fit, general satisfaction with colleagues is by person-group fit, and satisfaction with supervisor is strongly related with person-supervisor fit. In terms of pre-entry and post-entry, attitudinal criteria have stronger relationship than for behaviour. Person-

organisation fit was found to have a less significant relationship with overall performance compared to the other three types of fit.

The above literatures revealed that person-job fit had often been associated with many factors related to employees. The following section reviewed literatures on the relationship between person-job fit with the job performance of employees.

### 2.7.3 Person-job Fit and Job Performance Link

The notion that a persons' KSAs should match with the requirement of a job in order to have greater job performance is eminent. Furthermore, a large number of empirical researches have established that person-job fit is important for work outcome. For instance, person-job fit had found to be positively related to job satisfaction, organisational commitment, task performance and contextual performance, acceptance of job offer, tension reduction as well as intention to leave (Lauver & Kristof-Brown, 2001; Cable & DeRue, 2002; Saks & Ashforth, 2002; Cable & Edwards, 2004; Shin, 2004; Kristof-Brown et al., 2005; Greguras & Diefendorff, 2009).

The relationship between person-job fit from the polychronicity perspective with job performance and well-being at individual level was given an investigation. In this context, polychonicity was explained to reflect the various types of styles or preferences of doing work in either organisation or time management. The study revealed that person-job fit with respect to

polychronicity does affect job performance as well as the well-being of employees (Hecht & Allen, 2003). In another study, Caldwell and O'Reilly (1990) found that person-job fit to be correlated with subjective job performance measures but when it was tested with the objective job performance measures, the effect was lesser than those found with the subjective performance measures.

Additionally, Caldwell and O'Reilly (1990) examined the congruence between individual work and the tasks necessary to complete a job and established that fit was positively associated with satisfaction and performance. O'Reilly III, Caldwell and Mirable (1992) carried out an examination to assess person-job fit and its relationship with satisfaction, performance, and turnover. Person-job-fit was found to be associated with satisfaction, turnover and performance. Similarly Rousseau and Mc Lean Parks (1992) yielded evidence that the degree of fit between a person and organisation and the fit between a person and the job can have effect on both the productivity and as well as employee commitment. Likewise, Greenberg (2002) established that person-job fit to be related to job performance.

Edwards (1991) expounded that, person-job fit to have positive effects on performance, job satisfaction, and reduction in job stress, motivation, attendance and retention. In addition to that, person-job fit has also shown to develop improvement in task performance when the ability of the jobholders matches with their job demands. Anyhow Kristoff-Brown et al. (2005) found that when person-job fit and person-organisation fit were tested on job

performance, the study disclosed that person-job fit having had a modest correlation with overall performance though relatively considered to have stronger correlation value with performance as compared to person-organisation fit. Besides that, in relations to other attitudinal outcome, person-job fit is still demonstrating higher correlation than person-organisation fit (Kristoff-Brown, Jansen & Colbert, 2002; Saks & Ashforth, 1997). Moreover, it was also found by past studies that the correlation of fit-performance was higher when performance was distinguished by task performance and organisational citizenship behaviours (Schmitt, Oswald, Friede, Imus & Merritt, 2008).

On the other hand, Li and Hung (2010) found that person-job fit is strongly related to job performance when they carried out a research to examine the mediating effect of person-job fit on the relationship between information literacy and work outcome among employees of the financial institutions in Taiwan. The findings revealed that person-job fit was highly correlated with job performance, thus making it an effective predictor of job performance while at the same time it partially mediated the relationship between information literacy and job performance.

Even though studies had found that person-job fit could have influence on job performance, the amount of research is still limited (Mosley, 2002). In addition given the mixed results on the relationship between person-job fit and job performance (Edwards, 1991), studies on the relationship between person-job fit and job performance has therefore yet to come to similar

agreement (Taylor, Locke, Lee, & Gist, 1984; Conte, Rizzutto & Steiner,1999). Since past studies on the link between person-job fit and performance have contained mixed results (e.g. Lauver and Kristof-Brown, 2001; Cable and DeRue, 2002; Greguras and Diefendorff, 2009) and there is lack of research with regards to the service sector SMEs especially in Malaysia, thus the next hypothesis is to determine whether there is a significant relationship between person-job fit and the job performance of employees (details of the hypothesis can be found in chapter 3).

## 2.8 Chapter Summary

This chapter began with discussion on the nature of SMEs research in Malaysia. It was followed by the definitions of SMEs in general as well as the service SMEs. The development of SMEs in Malaysia was then explained in terms of its stages of development as well as on the efforts taken to boost the sector in Malaysia. Also in this chapter, a review of past literatures on all the variables under studied was carried out. This review had also demonstrated the presence of mixed findings on the related past researches that provide good justifications for the variables to be studied again in respect to the service sector SMEs in Malaysia. The literature review paved ways for the development of the theoretical framework and hypotheses of this research which are discussed in Chapter 3.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

The purpose of conducting this study is to determine the relationship that may exist between role ambiguity, competency and person-job fit with the job performance of the employees working in SMEs. This chapter begins with the discussion on the theoretical underpinning, research framework, hypothesis development, and research design, followed by the measurements that are used for this research. It will then be continued by the sampling process and followed by elaborations on data collection. Finally, explanations on the types of data analyses are discussed.

## 3.2 Theoretical underpinning

Even though performance has been a frequent dependent variable in many management studies, the theory of job performance has received little attention (Campbell, 1990; Campbell et al., 1993). The current study''s theoretical framework is underpinned by Campbell's performance model and further supported by Herzberg Two- Factor Theory (Herzberg, 1968) as well as Barrett's (1978) Congruency theory.

Campbell and Zook (1990) as cited by Delvecchio (1999) explained that Campbell model was first developed and tested for the US Army's "Project

A", which looked into the selection and classification research project sponsored by the U.S. Army Research Institute for the Behavioural and Social Sciences. The model by Campbell is seen as the most prominent job performance model in the literature, compared with a few other relevant performance theories (e.g. Hunter, 1983; Pritchard & Roth, 1991) and have been adopted by researches on individual job performance studies (e.g. DelVecchio,1999; Surface, 2002; Stoke, 2008; Law, Wong, Huang & Li, 2008).

Campbell's (1990) model makes clear distinctions between three components, which comprised of performance components, performance determinants, and the antecedents of performance determinants. Since in this study, the purpose is to look at the determinants of performance components, the antecedents of the determinants are not discussed but in general, the antecedents are made up of those variables such as person's abilities, personality, interests, education, training, experience that will lead to individual differences in performance determinants.

Performance components refer to the performance dimensions that constitute various parts of the overall job performance. Campbell's (1990) taxonomy of performance component includes eight general factors or dimensions: (1) job-specific task proficiency, (2) non-job specific task proficiency, (3) written and oral communication, (4) demonstrating effort, (5) maintaining personal discipline, (6) facilitating peer and team performance, (7) supervision, and (8) management/administration.

Campbell posited that each of the eight performance components is a function of three performance determinants. These are the direct determinants of performance, which is the focus of this study. Specifically performance component is a function of declarative knowledge, procedural and skills knowledge and motivation (Campbell, 1990; Campbell et al., 1993). In other words, in order to perform the behaviours in one of the dimensions, a person needs to know what to do, how to do it and possess the desire to do it.

In detail, declarative knowledge includes knowledge about facts, principles, goals and self- knowledge, which represents an understanding of a given task's requirements. Procedural knowledge and skill includes cognitive skills, psychomotor skills, physical skills, self-management skills, and interpersonal skills. Motivation is a combined effect from three choice behaviours: the choice to perform, the level of effort, and the persistence of the effort (Campbell et al., 1993).

In line with Campbell's model of job performance, declarative knowledge would influence the performance of an individual since having knowledge about facts, principles, goals and self-knowledge (declarative knowledge) represents an understanding of a given task requirements. In this context, existence of role ambiguity reflects an absence of declarative knowledge resulted in lack of good understanding about his (her) responsibilities and having little knowledge of what is expected pertaining to his (her) job performance (Rizzo et al., 1970).

At the same time, individual performance is also a function of the procedural knowledge and skills, which includes cognitive skills, psychomotor skills, physical skills, self-management skills, and interpersonal skills (Campbell et al., 1993). The component of procedural knowledge and skills in Campbell's model is best describing the level of competency that an individual should possess in order to generate an acceptable behaviour or performance. Competency is a reasonable predictor of procedural knowledge and skills, because when competency exists, an individual possessed the necessary abilities that reflect the motive, trait, skill, aspect of one's self-image or social role, or a body of knowledge that an individual uses in carrying out a tasks (Boyatzis, 1982). This is in line with the description of given by Campbell's model. Thus, possession of competency will allow a person to know how to carry out a task successfully.

In addition, Campbell et al. (1993) also stated that an individual performance would also be affected by motivation, which is a combined effect from the three choice behaviours: the choice to perform, the level of effort, and the persistence of the effort. Nevertheless, this motivation factor was not specifically provided in the model by Campbell as the model stated that any kinds of independent variables from a motivation theory could be considered according to individual preference (Campbell et al., 1993). Person-job fit is a reasonable motivational factor of the Campbell's model because individuals with high person-job fit have found to have positive outcome such as motivation (Edwards, 1991).

Therefore, to explain further on the motivation factor, the content theory of motivation will be applied. This is because the content theory focused on the needs of the individuals in which the theory explains the different factors that can contribute to either encouraging or halting behaviour within an individual. Thus, it is common to find that it is also known as “the need-based theories” (Hunsaker, 2005).

Herzberg’s (1968) two-factor theory was considered among one of the most reputed content theories of motivation. Applying this theory, employee performance is said to be affected by a set of intrinsic factors which forms the motivation factor (Robbins, 2005). The intrinsic motivators, known as the job content factors, define things that the people actually do in their work, their responsibility and achievements. These factors are the ones that can contribute a great deal to the level of job satisfaction an employee feels at work. These according to Herzberg (1968) are the factors that can motivate people to higher performance. These motivators (satisfiers) were associated with long-term positive effects on job performance.

One of the intrinsic factors that was highlighted by Herzberg is referring to the work itself. The two-factor theory stipulated that this element involves the employees’ perception of whether the work is too difficult or challenging, too easy, boring or interesting. In other words there must be a fit between the job holder and the job itself (requirements) as when it occurs. Therefore the job holder’s abilities and the job demand must match if motivation is to exist. This is reflected in the meaning of ‘the work itself’ by Herzberg. Furthermore

Congruence theory by Barrett (1978) as cited by Lawrence (2004) also defined person-job fit as the fit that may exists between individual preferences and the job requirements or the KSAs (Edwards, 1991) . The Congruence theory also stressed when congruency exists between one's preference and the KSAs of employees, it will leads to motivational outcome (Barrett, 1978).

### 3.3 Theoretical framework

Although there were many variables that have been identified to have influence on job performance, few of them were consistently supported by studies that investigated specifically on job performance as to how Campbell's (1990) had defined it. This is mainly due to lack of a standard definition for what constitutes job performance (DelVecchio, 1999). Thus, based on the research questions and objectives of this study and supported by the underpinning theories for this research, a theoretical framework is developed in relation to the hypotheses of this study as shown in Figure 3.1. This study incorporated the research work by Rizzo et al. (1970), McClelland (1973) and Muchinsky and Monahan (1987) into a multivariate framework that relates the factor of role ambiguity, competency and person-job fit with job performance among the employees of the service sector SMEs. The relationship between this three variables and the theory of performance was discussed in Section 3.2.

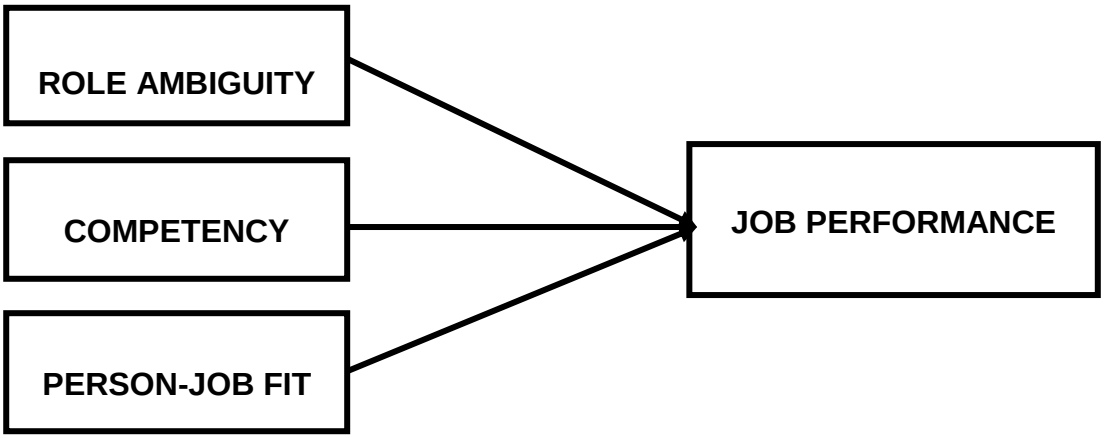


Figure 3.1
*Theoretical Framework*

### 3.4 Hypothesis development

A hypothesis is defined as “a tentative yet testable statement, which predicts what you expect to find in your empirical” (Sekaran & Bougie, 2009, pg. 87). Therefore, once hypotheses had been developed to delineate the relationship between two or more variable, testing can be carried out to confirm the relationship so that solution can be found to overcome identified problems (Sekaran & Bougie, 2009). Furthermore, in terms of the choice of hypothesis directions, it is always safe to use two-tailed test in order to avoid making wrong judgement on the direction of a relationship while at the same time when there have been conflicting findings in previous research studies (Hair, Money, Samouel, Page, 2007).

Therefore, in order to answer the research questions of this study, the following research hypotheses were developed based on the given research framework (see Figure 3.1) and to examine the relationship between role ambiguity, competency and person-job with the job performance of employees:

Hypothesis 1: There is a significant relationship between role ambiguity and job performance of employees working in the service sector SMEs.

Hypothesis 2: There is a significant relationship between competency and job performance of employees working in the service sector SMEs.

Hypothesis 3: There is a significant relationship between person-job fit and job performance of employees working in the service sector SMEs.

### 3.5 Research Design

Research is defined as the “pursuit of the truth” (Hair et al., 2007 pg. 4). A business research on the other hand is defined by Sekaran (2005) as “an organized, systematic, data-based, critical, objective, scientific inquiry or investigation into a specific problem, undertaken with the purpose of finding answers or solutions to it”. According to Hair et al. (2007), a business

research contains several key elements comprising of which a business research can be broad, formal, informal, and replicable and the benefits should outweigh the costs.

Leedy and Ormrod (2001) put forward that a research design should be directed towards solving the central problem of a research. As a basic, there are two types of research approaches, which are the qualitative, and the quantitative approach. Qualitative approach utilizes qualitative data, which represents the descriptions of things that are made without assigning numbers directly. These data are normally collected using unstructured interviews or observation where data are collected by recording words, phrases and sometimes pictures. On the other hand, a quantitative approach will use quantitative data, which reflects the numbers that are used directly to represent the characteristics of something. These data will then be analysed using statistical analysis as they are in the form of numbers (Hair et al., 2007).

Likewise, Leedy and Ormrod (2001) also stated that quantitative method is best used when one intends to answer questions about relationships amongst measured variables by explaining, predicting and controlling phenomena whilst qualitative research is best used when the answers to the questions involved complex nature of phenomena, which requires the point of views of participants.

Thus, in this study, quantitative research was utilized based on Williams and Monge's (2001) explanation. This approach is suitable when three conditions

are presents; measurement is relevant and possible, statistical generalizations may be applicable to the problem, and when probabilities or hypothesis tests are thought to be useful.

At the same time, Hair et al. (2007) had also given a list of advantages of the quantitative approach of research as shown below:

- More useful for testing,
- Provides summary information on many characteristics,
- Useful in tracking trends,
- More structure data collection techniques and objective ratings,
- Higher concern for representativeness,
- Emphasis on achieving reliability and validity of measures used,
- Relatively short interviews (1 to 20 minutes),
- Interviewer question directly but does not probe deeply,
- Large samples (over 50), and
- Results are relatively objective.

Thus, quantitative research was therefore needed in this study to provide empirical evidence supporting the theory of performance by Campbell et al. (1993) that employee will be able to perform if they have declarative knowledge (absence of role ambiguity), equipped with procedural knowledge and skills (having competency) and are motivated (when compatibility exist between a person and a job ).

### 3.6. Sources of data

#### 3.6.1 Sampling

A population simply refers to the entire group of people, events, or things of interest that researchers may want to investigate (Sekaran, 2005). Nevertheless this may unlikely to occur or feasible and thus the next best option is always through the sample of the population (Hair et al., 2007).

Sampling is defined as “the process of selecting a sufficient number of elements from the population so that a study of the sample and an understanding of its properties or characteristics would make it possible for the generalization of such properties or characteristics to the population elements” (Sekaran, 2005). Therefore, a sample simply means a subset of a population (Sekaran, 2005; Hair et al, 2007).

#### 3.6.2 Sampling Frame

It is common to see many past researches on SMEs in Malaysia were carried out on sectoral basis rather than by business types (e.g. Che Rose, Kumar & Lim, 2006; Deros, Yusof & Salleh, 2006; Lai, 2006; Alam & Ahsan, 2007). This is because even though there are many types of business found in each industry type of the SMEs (manufacturing or service), they are mostly very tiny in size thus their number may not indicate much about their relative importance by type of business (Hashim, 2000). Taking from this perspective,

the investigation for the present study on the job performance of employees was carried out mainly on the service sector SMEs in entirety thus making no distinctions within the sub-sectors in the services' component.

The unit analysis for this research consists of the employees who are currently working in the service sector SMEs. In order to determine the population of this study, reference was made to a sampling frame that was obtained from the SME business directory (www.smeinfo.com.my) where categorizations of company by types and by states were given. The total number of service SMEs available in Malaysia is shown in Table 3.1. The table gives the number of service SMEs found in each state in Malaysia and it is used as a guide in determining the population size of this study.

Table 3.1
*Number of Services SMEs (including ICT) in Malaysia as of March 2011*

| States | Number of service SMEs (including ICT) |
|---|---|
| Perlis | 24 |
| Kedah | 205 |
| Perak | 267 |
| Penang | 351 |
| Kelantan | 115 |
| Terengganu | 142 |
| Pahang | 178 |
| Selangor | 1686 |
| Wilayah Persekutuan KL | 1248 |
| Wilayah Persekutuan Putrajaya | 24 |
| Wilayah Persekutuan Labuan | 20 |
| Melaka | 163 |
| Negeri Sembilan | 156 |
| Johor | 467 |
| Sabah | 243 |
| Sarawak | 238 |
| **Total** | **5527** |

*Source: SME Business Directory (2011)*

Based on the definition given to an SME by NSMEDC 2004, in terms of numbers of employees, a service SME will have a minimum of 5 to a maximum of 50 employees (Bank Negara Malaysia, 2005). Thus taking from this perspective, the total elements for the entire population based on the sampling frame amounted to 27,635 employees (5 employees each from 5527 firms) with the assumption made that the minimum number of employees in each firm is of at least 5 people.

### 3.6.3 Sampling method

A probability sampling method is employed for this research. Usually the results from a probability sampling can be generalized to the entire population with a specified level of confidence. Thus in order to collect the samples, this study utilized the systematic random sampling, which represented one of the most commonly used methods when generalization is of concern. It is a method involves the process of randomly selecting an initial starting point on a list and thereafter every $K^{th}$ element in the sampling frame is selected (Hair et al., 2007).

### 3.6.4 Sample size

In order to ensure that the result obtained from studying the samples can truly represents the population and can be generalized, it is important to determine the correct sample size. Using the sampling frame from SME business directory (see Table 3.1) and based on sample size as suggested by Krejcie

and Morgan (1970), the right sample size for this study with a population N = 27,635, should be 379 employees.

Moreover, Roscoe (1975) had also suggested that generally a sample size should fall between 30 to 500 samples. In most researches and about multiple regression analyses, Roscoe (1975) had also suggested that the sample size should be several times (preferable ten times or more) as large as the number of variables in the study. In addition, Hair et al. (2007) had also recommended a minimum sample size of 30 or larger is necessary in any given research. Thus, this research fulfils the rule of thumb as proposed by Roscoe (1975). Therefore, the next task was to determine the number of questionnaires that needed to be distributed in order to obtain the required sample size. Thus, the following formula by Saunders, Lewis and Thornhill (2007) was applied:

$$n^a = \frac{n * 100}{re\%}$$

$n^a$ = actual sample size required

n = minimum sample size

re% = estimated response rate in %

Substituting *n* with the estimated response rate of mail survey in Malaysian context of 25% (Ismail & King, 2005) the total amount of questionnaires needed for distribution was shown as below:

$$n^a = \frac{379 * 100}{25}$$

$$= 1516 \text{ questionnaires}$$

$$= 1500 \text{ (round to the nearest hundreds)}$$

### 3.7 Design of Measurements

Sekaran and Bougie (2009) explained that a questionnaire is a pre-formulated written set of questions to which respondents record their answers within closely defined alternatives. Thus, measurements play an important part in any research, as without proper measurements the ability to test the developed hypothesis that derives from the variables could not be done accurately. In other words, measurement allows one to give a comment on a business behaviour or event (Sekaran, 2005).

Although there are many different types of scaling method, this study employed the Likert scale, which had been found to be the most commonly used in research (Sekaran & Bougie, 2009). It is often used when one intends to measure the strength of agreement about the variables that are understudied (Hair et al., 2007).

The scaling for the measurements of this study used the seven-point Likert scale which comprised of 1= strongly disagree, 2 = disagree, 3 = slightly

disagree, 4 = neither disagree not agree, 5 = slightly agree, 6 = agree and 7 = strongly agree for questions in Section I, II and IV while the scaling used for Section III were made up of 7= Very High, 6 = High, 5 = Slightly High, 4 = Neither High nor Low , 3 = Slightly Low, 2 = Low, and 1 = Very Low. A seven-point Likert scale was used as according to Hair et al. (2007, pg. 229), " the more points is used the more precision you get with regard to the extent of the agreement or disagreement with a statement".

The questionnaire of this study consisted of seven pages. The first page of the questionnaire enclosed a cover letter that explained about the purpose of the study as well as the importance of the study in helping the firms to understand better of employees' job performance in the service sector SMEs. It also described about maintaining the confidentiality of the respondents. Following on that, from page two to seven, the questionnaire contained five sections starting with questions on job performance (section one), role ambiguity (section two), competency (section three), person-job fit (section four) and ended with background information (section five).

Question on the background of respondent was placed at the end with a purpose in mind although the arrangement of the section on background/personal information in a questionnaire is said to be a matter of personal choice (Sekaran, 2005; Sekaran & Bougie, 2009). Oppenheim (1986) as cited by Sekaran and Bougie (2009) mentioned that some researcher might place personal questions at the end rather than at the beginning of the questionnaire. The reason was simply because once

respondents have reached to the end of the questionnaire, they may be convinced of the legitimacy and genuineness of the questions designed by the researcher, and hence will be more inclined to provide personal information.

### 3.7.1 Measurements

#### 3.7.1.1 Job performance

The measurement for job performance was adapted from the previous research by Williams and Anderson (1991) using a seven-point Likert scale ranging from strongly agree to strongly disagree for the job performance scales. The reported reliability by William and Anderson (1991) on the measurement was of 0.91. The employees were asked to rate their job performance on the selected items. This section contained six items as the following:

- I can adequately complete the assigned duties.
- I am able to fulfil responsibilities specified in my job description
- I am able to perform tasks that are expected
- I can meet the formal performance standards of the job.
- Generally, I engage in activities that will directly affect my performance evaluation.
- I neglect aspects of the job that I am obligated to perform.

### 3.7.1.2 Role Ambiguity

This measurement was adapted from Rizzo et al. (1970). The measurement contained a seven-point Likert scales, ranging from strongly agree to strongly disagree for the role ambiguity scales. The reliability of this instrument was reported as 0.78 and 0.81 as recorded by Rizzo et al. (1970). Since the nature of role ambiguity is negative, all of the items were reversed scored in which high scores indicated higher role ambiguity. This was done to maintain the meaning of the response as suggested by Sekaran and Bougie (2009), since this study measures role ambiguity not role clarity. The six items that included in this section were as the following:

- I feel certain about how much authority I have.
- I have clear planned goals and objectives for my job.
- I know that I have divided my time properly.
- I know what my responsibilities are
- I know exactly what is expected of me.
- Explanations I receive are clear about what has to be done

### 3.7.1.3 Competency

The measurement for competency was adapted from the works by Bajunaid (2008), Rainsbury, Hodges, Burchell and Lay (2002), Spencer and Spencer (1993), Meade and Andrews (1995) and Sweeney and Twomey (1997). The reported reliability of the scale was between 0.91 and 0.96. The respondents

were asked to rate each competency with the use of a seven-point Likert scales ranging from very high to very low indicating how much each of the competencies characteristics assisted the employees in performing their job. An additional note was also provided as a reference and the measurement contains twenty-four items in total as the followings:

- Teamwork and Cooperation
- Flexibility
- Relationship building
- Computer literacy
- Conceptual thinking
- Technical expertise
- Organisational awareness
- Concern for order, quality and accuracy
- Impact and influence on others
- Initiative
- Customer service orientation
- Developing Others
- Directiveness
- Team leadership
- Analytical thinking
- Self-control
- Organisational commitment
- Ability and willingness to learn
- Interpersonal understanding

- Self confidence
- Personal planning and organisational skills
- Written communication
- Information seeking
- Achievement orientation

#### 3.7.1.4 Person-job fit

Person-job fit was measured using the perceived fit measures developed by Lauver and Kristof-Brown (2001). Respondents indicated their level of agreement with each statement on a seven-point Likert scale ranging from strongly agree to strongly disagree. The alpha for reliability of the person-job fit scale was reported as 0.79. The six items for this section were as the followings:

- There is a good fit between what my job offers me and what I am looking for in a job.
- The attributes that I look for in a job are fulfilled very well by my present job.
- The job that I currently hold gives me just about everything that I want from a job.
- The match is very good between the demands of my job and my personal skills.
- My abilities and training are good fit with the requirement of my job.

- My personal abilities and education provide a good match with the demands that my job places on me.

#### 3.7.1.5 Background information

This information appeared in the last section of the questionnaire. Questions on this section was self-developed for this study and basically looked at the gender, age group, ethnic group, type of business sector, working experience, service tenure as well as level of education. They are meant to provide the information on the respondents' profile. There were a total of seven items related to the background of the respondents as the following:

- What is your gender?
- What is your age?
- What is your ethnic group?
- In which of the following sector does, your organisation operates?
- How many years of working experience do you have in total?
- How many years have you been working in the present organisation?
- What is your highest educational qualification?

### 3.7.2 Language translation

In designing the questionnaire, consideration was made in terms of language used. Since Malay language is the official language in Malaysia, the questionnaire was translated into the Malay language version in order to cater

to those respondents that may have difficulties in understanding the questionnaire in English language. This process of translation was done using the back translation method. Back translation is regarded as the best practice when comes to questionnaire design (McKay et al., 1996; Hilton & Skrutkowski, 2002).

In order to conduct a back translation, the first stage involved the source language (in this context the English language) being translated directly into the target language (Malay language) resulted in a new version. The second stage took place when translation for the second time was carried out by an independent person to translate the target version into the source language. A comparison was made in order to eliminate any discrepancies between the original and the back translated version (Potaka & Cochrane, 2004). The accuracy of the translated version of the questionnaire for this study was reviewed by an educator in one of the private institutions who has years of experience in teaching the Malay language of the Malaysian Qualifications Agency (MQA) course module at the private institutions of higher learning.

### 3.8 Study ethics

Since this study involved the collection of data from those respondents who are currently working in the service SMEs sectors, care was given in order to maintain the credibility of the respondents as well as their privacy. Therefore, respondents were not forced to participate in this study, meaning which participation was on voluntary decision and all personal information was

sealed away from non-relevant parties. At the same time, no direct personal identification of the respondents was required such as their names or any other forms of information, which can expose their identities. Besides that approval from the firms involved were obtained prior to the research so that employees that participated could rest assure that they would receive the blessing from the employers concerning their participations. In addition, all participants were given each a stamped self-addressed envelope which can be sealed to maintain confidentiality before posting.

### 3.9 Pre-test

The measurements used in this study were adapted from the previous studies. Job performance was adapted from Williams and Anderson (1991) while for role ambiguity; it was adapted from Rizzo et al. (1970). The measurement for competency was adapted from Bajunaid (2008); Rainsbury, Hodges, Burchell and Lay (2002); Spencer and Spencer (1993); Meade and Andrews (1995); Sweeney and Twomey (1997). Finally, for person-job fit it was adapted from Lauver and Kristof-Brown (2001).

Since the measurements were adapted, a pre-test was carried out to ensure measurement reliability and validity exists. Nunnally (1978) noted that it is necessary to have a pre-test in order to ensure that questions are understandable and the items can represent the constructs under studied. Thus a pre-test was carried out on data that were collected from a sample of thirty employees (N=30) whom were randomly selected from the service

sector SMEs. According to Hair et al. (2007) the number of respondents that can be used for a pre-test can range somewhere between four to thirty individuals. Through a pre-test study, the researcher was able to obtain knowledge on the reliability and the consistency of the intended measurements (Hair et al. (2007).

### 3.9.1 Reliability

In assessing the measurement of scales, the reliability of the measurement is very important. A questionnaire is considered as reliable if its repeated application results in consistent scores (Hair et al., 2007). In other words, the research findings became consistent and in most of the case, reliability takes in the form of multi-item scale. If the instrument is a multi-item scale, its reliability is developed when the scores for the individual questions (items) that made up the scale are correlated.

Sekaran (2005) defined reliability as a measure that indicates to the extent to which it is without bias (error free) and thus can result in consistency across time and across various items in the instruments. This will in turn indicate the "goodness" of a measure. Nunnally and Bernstein (1994) explained that measures are reliable to the degree that they can be repeated or to the degree to which test scores are free from random influence causing measurement error.

In another definition, reliability was defined as “the extent to which a variable or set of variable is consistent in what it is intended to measure. If multiple measurements are taken, the reliable measures will all be consistent in their values (Hair, Balck, Babin, Anderson & Tatham, 2006). Similar view was also given by Clark-Carter (2004) in which reliability is defined as the degree to which a measure would produce the same result from one occasion to another; in other words, consistency of the test.

Since this research used the Likert scale, having internal reliability of the measurements is crucial. This can be measured through the coefficient alpha or better known as the Cronbach’s alpha. Cronbach’s alpha can be obtained by calculating the average of the coefficients from all possible combinations of spilt halves and the value can range from 0 to 1 (Hair et al. 2007). When the value of the alpha is high, it indicates that the items in the scale correlate well whereas a lower score will show that the items do not correlate well and cannot measure the variables well when used in combination (Nunnally, 1978). The Cronbach’s alpha coefficient value should be of at least 0.7 in order to be considered as good as it shows that all the items in the measurement can be combined to measure a particular variable (Hair et al., 2007) and to be judged as acceptable (Nunnally, 1978).

### 3.9.2 Validity

On the other hand, reliability alone is not sufficient to assess the goodness of a measure, which needs another form of assessment. This is known as the

validity test. Validity is needed to ensure that the scale in used has the ability to measure the intended concept (Sekaran, 2005) or what it supposes to measure (Hair et al., 2007; Nunnally, 1978). When a measurement is not measuring the intended concept due to the presence of non-random error, invalidity is said to occur (Carmines and Zeller, 1979). Two common tests that can be used to test the goodness of measures are the content validity and construct validity.

A content validity, which is also known as the face validity, is used to make sure that the items used in the measurement are able to represent the concept of the study. Generally it look at whether on the surface the items chosen is able to measure the intended concept (Hair et al., 2006; Sekaran & Bougie, 2009). On the other hand, a construct validity refers to the ability of a set of measured variables to represent the theoretical latent constructs of those variables (Hair et al., 2006) while Sekaran and Bougie (2009, pg. 160) stated that “construct validity testifies to how well the results obtained from the use of the measure fit the theories around which the test is designed”. The existence of construct validity will give confidence that the items measures taken from a sample can represent the actual true score of the total population. Thus, Carmines and Zeller (1979) established that construct validity is most useful for many abstract social sciences concepts as compared to content validity. Thus in order to determine the construct validity, factor analysis was carried out in order to confirm that the items of the measurements are most appropriate to measure the chosen variables.

### 3.9.3 Results of pre-test

Sekaran (2005) stated that the issue on testing for validity should not be arising when a researcher utilizes measurements that have been established by other developers. When a researcher adopted measurements, which have been reputed to be good and have been well validated in the past researches, there is no need to establish their validity again (Sekaran & Bougie, 2009).

Thus, a researcher should choose those instruments already reputed to be good rather than developing own measures (Sekaran, 2005). Anyhow, content (face) validity was conducted in this study by asking several questions to the respondents during pre-test. The following questions were prepared:

- Is the questionnaire measuring what it is to measure?
- Is it appropriate for the respondent?
- Can the respondent understand the questions?

The results of the pre-test found that the participants were able to understand all the questions asked and they were clear with the given instructions as stated in the questionnaire. In order to test for the reliability of the measurements, SPSS was utilized to tabulate the collected data and adjustment being made based on the result of the test. In carrying out the reliability test on the dependent variable “job performance’ (JP1 to JP6), the initial result showed that the Cronbach’s alpha coefficient value is 0.223 which was lower than the recommended value of 0.7 by (Nunnally, 1978; 1983). The

low alpha value may indicate that the items do not correlate well and cannot measure the variables well when used in combination (Nunnally, 1978).

Eventually the items to measure “job performance” were reduced to only four items ranging from JP1 to JP4 in which, the new Cronbach’s alpha increased to 0.87 which is higher than the recommended 0.7 value. Thus, only four items were finally retained for actual data collection. According to Hair et al. (2007), a minimum number of items in a scale in order to measure a particular concept should at least be three, thus reduction to four items for the job performance measurement is within the permissible number.

On the other hand, all the Cronbach’s alpha value for all the items that were used to measure the independent variables comprised of role ambiguity (RA1 to RA6) , job competency (C1 to C24) and person job-fit (PJ1 to PJ6), had been found to be reliable with coefficient values of 0.74, 0.90 and 0.91 respectively. A summary of the measurements reliability is shown in Table 3.2. The final number of items after the pre-test execise were used for actual data collection were shown in brackets.

Table 3.2
*Result for measurement reliability after a pre-test*

| Variable | Cronbach’s alpha Past research | Cronbach’s alpha (pre-test) |
|---|---|---|
| Job Performance | 0.91 (6 items) | 0.87 (4 items) |
| Role Ambiguity | 0.78 to 0.81 (6 items) | 0.74 (6 items) |
| Competency | 0.91 to 0.96 (24 items) | 0.90 (24 items) |
| Person-job fit | 0.79 (6 items) | 0.91 (6 items) |

## 3.10 Data Collection

### 3.10.1 Methods

In order to collect data for this study, a survey method was employed in which it involved the collection of numerical data using structured questionnaire that was used to collect primary data from the samples. A questionnaire is a pre-formulated written set of questions to which respondents record their answers, usually within closely defined alternatives (Sekaran, 2005). Hair et al. (2007 pg. 205) mentioned that a structured questionnaire is a “pre-determined set of questions designed to capture data from respondents. It is basically a scientifically designed instrument for measurement of key characteristics of individuals, companies, events or other phenomena”. This method of data collection would therefore allow greater control as the researcher is able to know what is needed and to measure the variables understudied (Hair et al., 2007). Babbie (2004) had also suggested that survey is the most useful instrument for collecting standardized information from a large sample of respondents such as the in this case of employees working in the service sector SMEs.

The three common types of data collection methods in survey research are interviewing, administering questionnaires and observing people or a phenomenon (Sekaran, 2005). Interviewing has the advantage of being flexible in which the interview is able to adopt, adapt and the modifying the questions by the researcher during the process of interview. On the other hand, if a researcher intends to obtain data in much efficient manner in terms

of time, effort and costs, the way to do it is with the use of questionnaires whereas observation will allow an unobtrusive way of collecting data. There are three commonly use method of administering questionnaires survey, which consists of personally administered questionnaire, mail questionnaires and questionnaires that are distributed electronically (Sekaran, 2005).

No matter which methods that a researcher may choose, it all depends on several factors such as the degree of accuracy needed, the level of expertise that is possessed, time span of the study and any other related factors such as cost and resource availability (Sekaran, 2005). Among these mail survey is regarded as one of the most common methods utilized (Hair et al., 2007).

As a result, this research employed a mail survey approach by mailing to all the identified potential respondents. One of the main reasons that this method was employed was because it allows a wider coverage of geographical area whereby in this study questionnaires can be distributed to all the identified service SMEs in Malaysia with much ease. Besides, it can also be distributed electronically if desired. It is therefore more cost effective as compared to personally administered method whereby the researcher will have to be present in all the identified companies to personally administer and collect the needed data (Sekaran & Bougie, 2009).

In addition, mail survey will also permit the respondents to fill up the questionnaires at an appropriate time or to their convenience either at workplace or at home. Moreover, respondents may also find answering the

questionnaires as non-threatening as it may tend to maintain anonymity (Hair et al., 2007). Erdos (1974) also noted several advantages of mail survey, which mainly include wider distribution, less distribution bias, better likelihood of thoughtful reply, no interviewer bias, central control, time saving, and definitely cost savings.

Nevertheless, mail questionnaire has its flaws too especially in terms of responds rates that are typically low and 30 percent response rate are normally regarded as acceptable. This condition may require the researchers to conduct a follow-up procedure for potential non-responses (Sekaran, 2005). In addition, another problem that is often cited, is that respondents will not be able to get clarification should there exist confusion or doubt pertinent to the questionnaires if the survey is done through mails. Besides, researchers often worry that due to the low rate of response, generalization of the research findings is difficult to be established (Sekaran, 2005).

### 3.10.2 Data collection procedure

Based on the SME directory (www.smeinfo.com.my), a systematic random sampling was used to select 1500 respondents in order to obtain the minimum sample size required of 379 (see section 3.3.4). There were 5527 SMEs in this study and each selected firm was sent with 5 set of questionnaires. Under the systematic random sampling technique, a sample is chosen by selecting a random starting point and then picking every $K^{th}$ element in succession from the sampling frame (where K is the sampling interval). There were 300 SMEs

in total chosen under this technique (1500 ÷ 5 employees). For this study, every 18th firm was automatically selected from the list in the sampling. For example, the sample included the 18th name, the 36th, 54th, 72nd and so forth. Thus, 300 firms (1500 employees) were finally selected from the list of 5527 SMEs.

Before mailing took place, an effort was made to contact the person in-charge (manager) in each of the firms either through visitations, mails or through telephone calls in order to explain the purpose of the research. When approval was received, each questionnaire was placed in an envelope enclosed with a cover letter along with a stamped return addressed envelope so that it will be convenient for the respondent to post it once it is completed. The cover letter contained an explanation on the purpose of the research, which is solely for academic research and an assurance that only the researcher shall have access into the responses given by the employees.

Besides that, a letter was prepared (with approval obtained) for the person in-charge (manager) to encourage the employee to participate in the survey as an attempt to get better response from the respondents. A follow-up letter was sent to those firms as a way to obtain their supports in getting their staff to participate in the research. In order to further encourage participations, an offer was also made for the participating firms to be given the summary of the findings should they be interested to obtain one.

All the survey forms were distributed to randomly selected companies within 2 months beginning from early February 2011 until end of March 2011, either by post or through e-mails. In view of the past researches on SMEs that were carried out in Malaysia, the usual time frame given to collect responses was approximately 3 months based on the work by Lee, Huam, Osman and Rasli (2010) while Ismail (2009) took around 2.5 months. Therefore, this study had also scheduled to collect responses within the similar period.

### 3.11 Non-response bias

Mail survey was regarded as one of the most popular methods in data collection for being inexpensive (Erdos, 1974; Babbie, 2004; Sekaran, 2005; Hair et al., 2007). Nevertheless poor response rate has always become an issue among researchers as the response rates can be as low as less than 50 percent (Pearl & Fairley, 1985). Having non-reponses in mail survey had often been remarked by past researchers (e.g. Armstrong & Overton, 1977; Pearl & Fairley, 1985; Sekaran, 2005; Hair et al., 2007; Sekaran & Bougie, 2009).

In line with that, a well-designed survey and a research-based administration method, following generally acceptable protocols and procedures as well as reporting them in the research analysis, are the first-step in the attempt to increase response rates and to control for non-response bias (Dillman, 2000; Linder, Murphy & Briers, 2001; Porter, 2004).

Non-response bias occurs in statistical survey if the answers of respondents differ from the potential answers of those who did not answer. In other words, non-response bias occurs “when there is a difference between the preferences of these non-respondents and those that do not response in which estimates are based upon” (Pearl & Fairley, 1985 pg. 553). According to Ellis, Endo and Armer (1970), non-response bias is a function of: (a) the proportion of non-respondents in the total sample and (b) the extent to which there is a systematic discrepancy between respondents and non-respondents on variables relevant to the inquiry.

Berg (2002) referred to non-response bias as the mistake one expects to make in estimating a population characteristics based on a sample of survey data in which, due to non-response, certain types of survey respondents are under-represented. The mail survey technique has frequently been criticised for non-response bias. On the other hand, Bose (2001) defined bias as the difference between a survey estimate and the actual population value while non-response bias associated with an estimate consists of two components- the amount of non-response and the difference in the estimate between the respondents and non-respondents.

According to Armstrong and Overton (1977), late respondents are assumed to share similar responses as non-repondents. Those late respondents who respond less readily were thought to have responded simply because they have been reminded or prompted to do so by the researcher. Due to this stimulus, researcher will obtain responses through different waves with

persons that responded in later waves would be assumed to be as non-respondents (Armstrong & Overton, 1977). Furthermore, Pearl and Fairley (1985) noted that although efforts were put in to have a well-designed survey, the existence of the unknown opinions of individuals cannot contribute to estimates of population preferences.

Accordingly, based on the idea from Armstrong and Overton (1977) non-response bias had also been defined as a bias that exists in survey results when respondents to a survey are different from those who did not respond in terms of demographic or attitudinal variables, or other variables relevant to the survey topic (DDS Research, Inc., 2004).

One approach to non-response bias is to estimate the effects of non-response (Daniel, 1975). Armstrong and Overton (1977) mentioned that there were several reasons for the estimates the non-response bias to be in used:

- Reanalysing previous surveys. Estimates of non-response bias can be used to estimates of survey that was done after some time ago.
- Saving money. Due to low rate of return of the mail survey, effort to increase the rate of return can become costly. Therefore, if estimates of non-response bias can be carried out, accepting lower rate of return can become economical as through estimation.
- Saving time. Estimates will also be useful if respondents are expected to change substantially in the near future, it will not be possible for one to obtain a high rate of return, as it will take time. This has made the

usage of estimates as the better solution in managing non-response bias.

Thus, before a sample can be used to generalize on the population, it is necessary to know whether the response given by those responded and those do not, were not significantly different (Armstrong & Overton, 1977). Therefore is it necessary that non-reponse bias does not occur in this study in order to ensure generalizability of the study. The presence of non-response bias is a threat to the external validity or generalizability of research findings to the target population of a study (Linder et al., 2001).

### 3.12 Data Analysis

All collected responses were properly examined before they were coded into SPSS version 18.0. This data screening process was done to ensure that questionnaires that were obtained were appropriate for the research in terms of completeness or missing responses. Initial analysis had also been conducted in order to test the normality of data. Normality simply means the degree to which the distribution of the sample data corresponds to a normal distribution. This resulted in the score on the variables gathered around the mean in a symmetrical pattern of bell-shaped or normal curve (Hair et al., 2006). In order to determine the validity of the measurements statistically, factor analysis was carried out and once it was conducted, reliability of the measurement was once again performed on the collected data for final confirmation.

Once this is done, the data were analysed using two approaches. The first approach involved using descriptive statistical analysis in order to determine the means, modes and the standard deviations to measure the dispersions. Thus, the descriptive statistics was used in order to convey the essential characteristics of the collected data (Sekaran & Bougie, 2009). The second approach used the inferential study for testing the hypotheses. This approach was employed to test the hypotheses using statistical tests, which can help to determine whether the proposed hypotheses can be confirmed by empirical evidence (Hair et al. 2007). In order to do this, correlations as well as the regression analyses were carried out to explore the relationships between the independent variables with the dependent variable of this study.

### 3.12.1 Factor analysis

In order to determine the validity of the measurements statistically, factor analysis was carried out. Factor analysis can be defined as “a set of techniques for studying interrelationships among variables” (Weiers, 2011, pg. 114). A very large set of variables can be reduced to a smaller set of new variables (factors) that are more basic in meaning but contained most of the information in the original set (Hair et al., 2007; Coakes, Steed & Ong, 2009). Thus through factor analysis, identification of the relevant items in a measurement that will measure the underlying variables can be known. This in turns helps to develop the construct validity of the measurements utilized to measure the dependent variable which is job performance as well as the independent variables of this study which comprised on role ambiguity,

competency and person-job fit. Additionally for the purpose of this study, the principle component analysis method for factor extraction was utilized to carry out the factor analysis. Furthermore, factor analysis with varimax rotation was utilised to validate whether the respondents perceived the three constructs to be distinct.

Nevertheless, before factor analysis was carried out, factorability of the data must fulfill the sample adequacy tests of Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity. If the KMO value is greater than 0.6 (Coakes et al., 2009), and the Bartlett's test of sphericity is large and significant ($p<0.05$) (Hair et al., 2006), factorability is then considered as possible. Once factor analysis being carried out, items with factor loading that is greater than 0.3 will be used to represent a factor since it is regarded as the threshold to meet the minimal level for interpretation of structure although the higher the loading (with around 0.7 and above), the more important the loading is in interpreting the factor matrix (Hair et al., 2006).

### 3.12.2 Descriptive analysis

In order to learn more and to describe the characteristics of the variables of interest, a descriptive study was carried out. In other words, descriptive study will promote ideas for further research which will then assist in making simple decisions for many situations in a quantitative manner (Sekaran & Bougie, 2009).

### 3.12.3 Correlation analysis

Basically statistical tests will provide the knowledge on whether there is a statistical association that may exist between the variables under studies. This can be determined through correlation analysis on the relationship between the variables that are understudy. The Pearson correlation matrix provides the strengths, direction and significance of the bivariate relationship among all the variables that are measured using the interval level (Sekaran & Bougie, 2009). Through the correlation coefficients, the strengths and directions of the relationship can be known with +1.0 indicates a perfect positive correlation while -1.0 shows that there is perfect negative correlation. Thus the positive (+) and the negative (-) sign simply shows the direction of the relationship between two variables (Johnson & Kuby, 2012).

In adopting the conventionally accepted standard of confidence level of 95 percent, the level of significance in this study was $p<0.05$ which indicated that at least 95 times out of 100 that the estimation will reflect true population characteristics with only 5 percent chance that the result will be wrong (Sekaran & Bougie, 2009). Judging from this benchmark, this study can conclude that relationship between the variables exist when the significance level is at $p<0.05$. In other words, there is insufficient evidence to accept the null hypothesis that no significant relationship exist.

### 3.12.4 Regression analysis

In order to test the hypotheses for this study, regression analysis was applied. In order to test each of the hypotheses, simple linear regression ($Y=\beta_0 + \beta_1 X_1 + \varepsilon$) was employed while multiple regressions were used in order to determine the character of the relationship between the independent variables and the dependent variable. In other words, it will help to reveal the relative importance of each of the independent variables (Sekaran & Bougie, 2009). Multiple regression is expressed as in the following equation:

$$Y=\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots\ldots\ldots + \beta_n Xn + \varepsilon$$

Where:

$\beta_0$ = a constant, the value of Y when all X values are zero.

$\beta i$ = the slope of the regression surface or response surface. The β represents the regression coefficient associated with each X*i.*

ε = an error term, normally distributed about a mean of 0. It is assumed to be = 0 for the purpose of computation.

Through multiple regression, Hair et al. (2007) expounded that a researcher will be able to know whether relationship exist between the independent variables with the dependent variable, the strengths of the relations if does exist, the direction of the relationship that is whether it is positive or negative and finally how these existed relationship can be described in the best possible way.

### 3.13 Chapter summary

This chapter explained the methodology used in this study. A quantitative approach was used to study the relationship between role ambiguity, competency and person-job fit with the job performance of the employees working in the service sector SMEs. This chapter also detailed the research design with the measurements used for this study, described the population and samples, elaborated on the data collection and the method of analyses to be carried out which includes the factor analysis, the descriptive statistics, correlations and inferential statistics using regression to test the hypotheses. The findings of the analyses are presented in the following chapter.

# CHAPTER FOUR

# DATA ANALYSIS AND FINDINGS

## 4.1 Introduction

This chapter presents the data analysis as well as the results of the study. All collected data were analysed using SPSS 18.0. Therefore, this chapter begins with the discussion on the data screening process. This includes non-response bias test, outlier assessment, testing for normality, reliability and validity test. In order to explore the collected data, a descriptive analysis was carried out and followed by hypothesis testing. In order to test the hypotheses, inferential statistics are utilized using the Pearson correlation and multiple regression in order to determine the relationship between the independent variables, which comprised of role ambiguity, competency and person-job fit with the dependent variable, which is job performance.

## 4.2 Response rate

There were 1500 (which was determined based on the minimum required sample size as explained in section 3.6.4) questionnaires mailed to the respondents. In the end, 180 responses were collected in the month of April while the remaining 144 responses were obtained in the month of June after attempts were being made to remind those companies about the survey. Out of the 324 responses that were obtained, 24 were found to be unusable due

to they were either not completely answered (incompleteness) or some of the sections having items non-response. Eventually only 300 responses were deemed to be usable resulting in 20 percent response rate. This is considered as reasonable since most of the survey done in Malaysia generated a response rate that falls between 10 percent to 20 percent (Ramayah, Yan & Sulaiman, 2005) with Lai (2006) obtained 17.5 percent, Ramayah et al. (2005) recorded 27 percent while Ainin, Kamarulzaman, Farinda and Azmi (2010) obtained a total of 15 percent of response rate. Through a recent study by Abd. Aziz and Mahmood (2011) on SMEs in Malaysia using the similar technique yielded a response rate of 20.2 percent.

### 4.3 Non-Response Bias Test

Since there were differences in the wave of collecting the data, a non-response bias test is therefore necessary. This test was conducted because the response was 300 which are below the minimum sample required. There is a possibility that those who did not response would have different answers. Therefore, this test will eliminate this bias if no significant difference exists. In conjunction with this, non-response bias test was conducted on the 300 responses in which 180 responses that were obtained first were regarded as the first wave responses while the remaining 120 responses were treated as the second wave responses.

In order to carry out the non-response bias test, the t-test approach was utilized. This was done by comparing the mean of two independent samples. The goal here was to determine whether there were any significant difference between the early respondents and the late respondents, i.e. hypothesising that the mean for the first wave and the second wave responses were the same. Therefore those early respondents that were received was regarded as the first wave which amounted to 180 responses (60 percent) of the total collected samples while the late respondents of 120 (40 percent) of the total samples collected was regarded as non-respondents as according to the assumption by Armstrong and Overton (1977).

Even though t-test that uses the t-distribution (Student's t-distribution) is often used for a sample size that is small (n=30), it was often found in the past researches that the t-distribution had been used quite often for sample size larger than 30 because the nature of the distribution is said to have identical distribution (the t-distribution is symmetrical with bell-shaped and having a mean of zero and standard deviation of 1) with larger samples (Sekaran & Bougie, 2009). Based on the t-test for equality of means, at p value < 0.05, it was found that there was no significant difference between those responses that were obtained from the first wave with those that were obtained from the second wave as the significance value is greater than 0.05. This is shown in Table 4.1 and Table 4.2.

Table 4.1
*Group statistics for non-response bias test*

| | wave | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Job performance | first wave | 180 | 5.6708 | 0.8778 | 0.0654 |
| | second wave | 120 | 5.6125 | 0.6712 | 0.0613 |
| Role ambiguity_rev | first wave | 180 | 2.5648 | 0.9073 | 0.0676 |
| | second wave | 120 | 2.4481 | 0.7099 | 0.0648 |
| Competency | first wave | 180 | 5.5028 | 0.875 | 0.0652 |
| | second wave | 120 | 5.3771 | 0.9544 | 0.0871 |
| Person-job fit | first wave | 180 | 5.1111 | 0.9717 | 0.0724 |
| | second wave | 120 | 5.0361 | 0.7578 | 0.0692 |

Table 4.2
*Independent sample test for non-response bias test*

| | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | Lower | Upper | Lower | Upper | Lower | Upper | Lower |
| Job performance | Equal variances assumed | 0.617 | 298 | 0.537 | 0.058 | 0.094 | -0.128 | 0.244 |
| | Equal variances not assumed | 0.651 | 292.38 | 0.516 | 0.058 | 0.09 | -0.118 | 0.235 |
| Role ambiguity_rev | Equal variances assumed | 1.188 | 298 | 0.236 | 0.117 | 0.098 | -0.077 | 0.31 |
| | Equal variances not assumed | 1.247 | 290.37 | 0.214 | 0.117 | 0.094 | -0.068 | 0.301 |
| Competency | Equal variances assumed | 1.175 | 298 | 0.241 | 0.126 | 0.107 | -0.085 | 0.336 |
| | Equal variances not assumed | 1.155 | 239.7 | 0.249 | 0.126 | 0.109 | -0.089 | 0.34 |
| Person-job fit | Equal variances assumed | 0.713 | 298 | 0.476 | 0.075 | 0.105 | -0.132 | 0.282 |
| | Equal variances not assumed | 0.749 | 290.66 | 0.455 | 0.075 | 0.1 | -0.122 | 0.272 |

## 4.4 Outliers Test

Outliers are cases that have data values that are very different from the data values for the majority of cases in the data set (Rasmussen, 1988). Outliers are important because they can change the results of the data analysis. Whether to include or exclude outliers from a data analysis depends on the reason why the case is an outlier and the purpose of the analysis. This study employed the Mahalanobis $D^2$ to detect outliers. Mahalanobis $D^2$ is a multidimensional version of a z-score. It measures the distance of a case from the centroid (multidimensional mean) of a distribution, given the covariance (multidimensional variance) of the distribution (Rasmussen 1988).

A case is a multivariate outlier if the probability associated with its $D^2$ is 0.001 or less. $D^2$ follows a chi-square distribution with degrees of freedom equal to the number of independent variables included in the calculation (Rasmussen 1988). Data in this study shows five items with $D^2$ score probability (p) of less than 0.001. Thus, these five cases are treated as outliers and were then deleted from the data. Hence, 295 respondents are valid to be used for further analyses in the study.

## 4.5 Normality Test

The other step in analysing the data for this study is to examine the normality of the data by assessing the shape of distribution. Normality tests are used to determine whether a data set is well modelled by a normal distribution or not,

or to compute how likely an underlying random variable is to be normally distributed.

Normal distribution is defined as “the expected distribution of sample means as well as many others chance occurrences and frequently refereed as a bell-shaped curve” (Hair et al., 2007, pg. 422). Therefore a normal distribution is important because it will offer the underlying foundation for inferences to be made in many business researches that uses sampling when collecting data (Hair et al., 2007). In a more precise manner, they are a form of model selection, and can be interpreted several ways, depending on one's interpretations of probability.

There were two approaches undertaken in this study to carry out the normality test which comprises of first, a test that was conducted to determine the normality of the variables through visual inspections while the second one was through statistical testing. An informal approach to testing normality is to compare a histogram of the sample data to a normal probability curve. The graphical distribution of the data (the histogram) should be bell-shaped and resembles the normal distribution. Meanwhile the statistical approach used to examine the data normality consists of skewness and kurtosis analysis.

Skewness basically measures the departure from a symmetrical distribution in which it can either be skewed to the left (negatively skewed) or to the right (positively skewed) (Weiers, 2011). A normally acceptable skewed range is within -1.00 to + 1.00 (Hair et al., 2007). On the other hand kurtosis is a

measurement of a distribution's peakedness (or flatness) and the normal acceptable range according to Hair et al. (2007) is between -3.00 to +3.00.

The following sections will present the results of the normality tests that were conducted on all the variables that were understudied which comprised of job performance (dependent variable) and the three other independent variables consist of role ambiguity, competency and person-job fit. The results presented the graphical method of normality test using the histogram and followed by the explanations of the skewness and kurtosis value. The result for the normality test using the skewness and kurtosis approach can be seen in Table 4.3.

Table 4.3
*Statistical approach of normality testing*

| **Variables** | **Skewness** | **Kurtosis** |
|---|---|---|
| Job performance | -0.348 | 0.064 |
| Role ambiguity | 0.549 | -0.041 |
| Competency | -0.592 | -0.554 |
| Person-job fit | -0.137 | -0.164 |

### 4.5.1 Job Performance

Figure 4.1 shows that the histogram distribution for job performance is within the normal curve distribution. Hence, it is suggested that job performance variable is normally distributed with a mean of 5.66 and a standard deviation of 0.778.

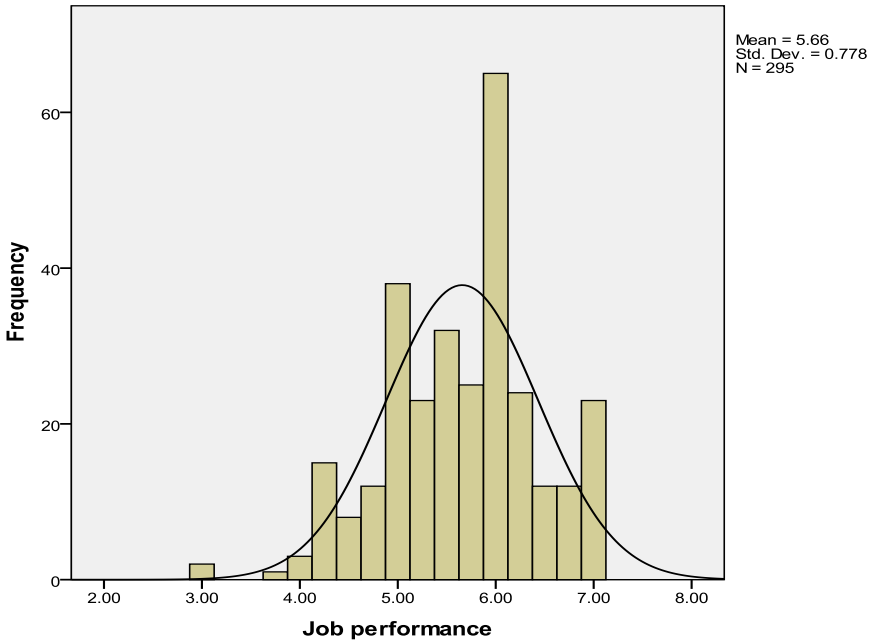


Figure 4.1
*Histogram of job performance variable*

Next, the normality of job performance variable was also examined through the inspections of skewness and kurtosis. The analysis showed that skewness value for job performance role is -0.348 while value for kurtosis is 0.064. Thus the skweness and kurtosis value for job performance data are within the normality assumption that is within the range of -1.00 to +1.00 (see Table 4.3).

### 4.5.2 Role Ambiguity

Figure 4.2 shows the histogram of role ambiguity variable. It can be seen from the figure that the role ambiguity variable is within the normal curve distribution, suggested that the variable is normally distributed.

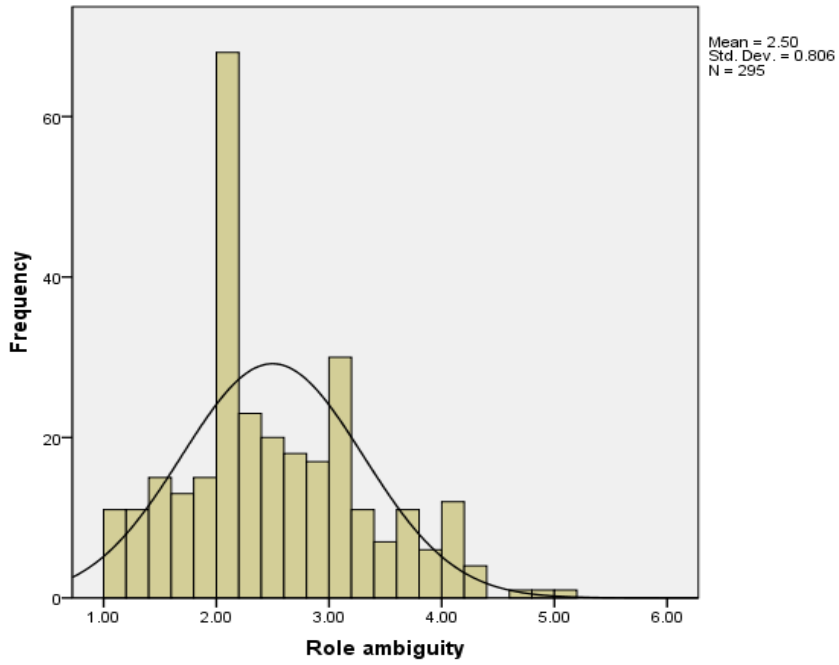


Figure 4.2
*Histogram of role ambiguity variable*

At the same time, further inspection of normality using the skewness and kurtosis approach showed that skewness value is 0.549 while the kurtosis value is -0.041 are within the normality assumption. Hence, it can be concluded that the data for role ambiguity variable were normally distributed (see Table 4.3).

### 4.5.3 Competency

Figure 4.3 shows the histogram to examine the normality of competency variable. It is also found that the competency variable is curved within the normal distribution line. Further statistical inspection using the skewness and kurtosis approach showed that skewness value is -0.592 and Kurtosis value is -0.554 that are within the normal assumption. Hence, the competency variable is found to be normally distributed (see Table 4.3).

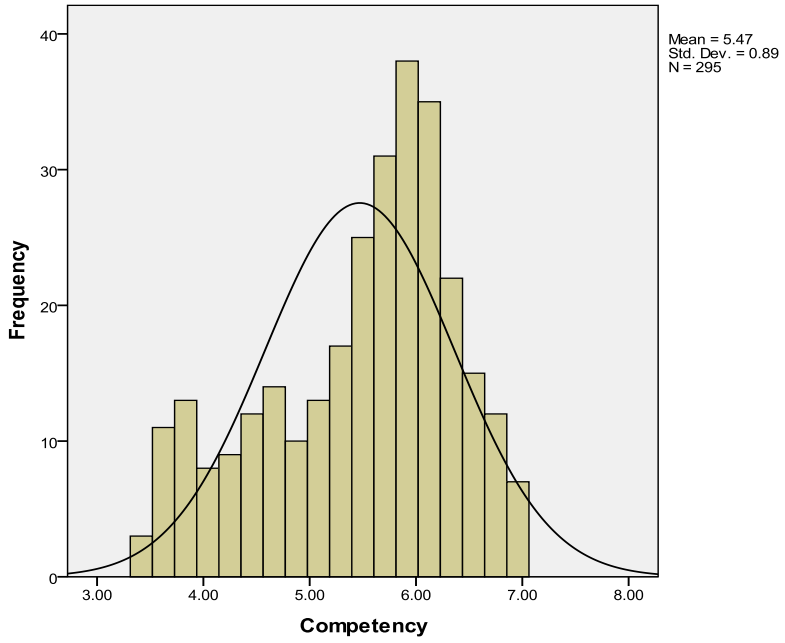


Figure 4.3
*Histogram of competency variable*

### 4.5.4 Person-Job Fit

Figure 4.4 shows the histogram of person-job fit variable to test the normality of the data. It can be seen that the histogram distribution for person-job fit variable is within the normal curve distribution.

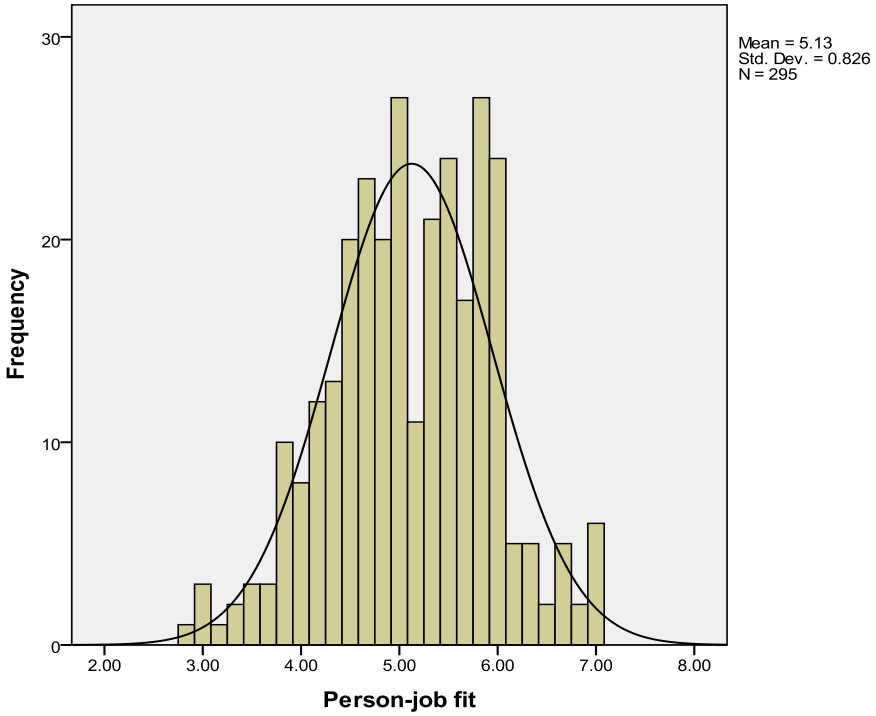


Figure 4.4
*Histogram of person-job fit variable*

Further inspection using the skewness and kurtosis approach shows that the value of Skewness was -0.137 and Kurtosis was -0.164 , thus they were found in the ranged of normal assumption hence, person-job fit variable is also normally distributed (see Table 4.3).

## 4.6 Factor Analysis

In order to test the construct validity of the measurements for this study, factor analysis was utilized. Validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration. It is evidenced that the instrument, technique or process used to measure a concept does indeed measure the intended concept. In this study, validity of the instrument was determined through the following procedure. For content validity, literature review of literatures on job performance and related studies was conducted. At the same time, theories related to the independent variables were also studied. Highly selected articles, dissertations and journals of management have contributed significantly to the understanding of job performance.

In testing whether factor analysis is suitable for testing the construct validity, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Barttlet's Test of Sphericity were used. Therefore if the KMO values is greater than 0.6 (Coakes et al., 2009), and the Bartlett's test of sphericity is large and significant ($p<0.05$) (Hair et al., 2006), factorability is then considered as possible. Once factor analysis had been carried out, items with factor loading that is greater than 0.3 will be used to represent a factor since it is regarded as the threshold to meet the minimal level for interpretation of structure (Hair et al., 2006).

### 4.6.1. Factor analysis for job performance

There were four questions used to measure the job performance of employees. In order to determine the appropriateness of using factor analysis for the items in the job performance measures, the KMO and Bartlett's test was carried out. The KMO value is 0.814 which exceed the required value of 0.6 (Coakes et al., 2009) while the Bartlett's test of sphericity having chi-square value of 562.505 and there is statistically significant correlation between the items ($p < 0.001$), which permits factor analysis to be carried out.

All four questions were loaded onto a single factor with eigenvalue more than 1.0. The single factor extracted 71.13 percent of the total variance in response. The result is shown in Table 4.4. At the same time, a scree plot had also proposed a single factor solution (see Figure 4.5). All the items were chosen to identify with a factor since those factors were with loadings greater than 0.3 according to the guideline by Hair et al. (2006). The factor loading have all found to be greater than 0.6 indicating good correlation between the items and the factor grouping they belong. According to Kline (1994), when factor loading is greater than 0.6, it can be considered as high while any factor loading that is greater than 0.3 are regarded as moderately high.

Table 4.4
*Summary of factor loadings for job performance*

| Question | Component |
|---|---|
| | 1 |
| JP1 completes assigned duties | 0.868 |
| JP2 fulfil responsibilities according to job descriptions | 0.878 |
| JP3 able to perform as expected | 0.853 |
| JP4 meet the formal performance standards | 0.770 |
| Eigenvalues | 2.845 |
| Percentage of variance explained = 71.13 % | |
| KMO =0.814 | |
| Bartlett's Test of Sphericity: | |
| Approx. Chi-Square = 562.505 | |
| df= 6 | |
| Sig =.000 | |

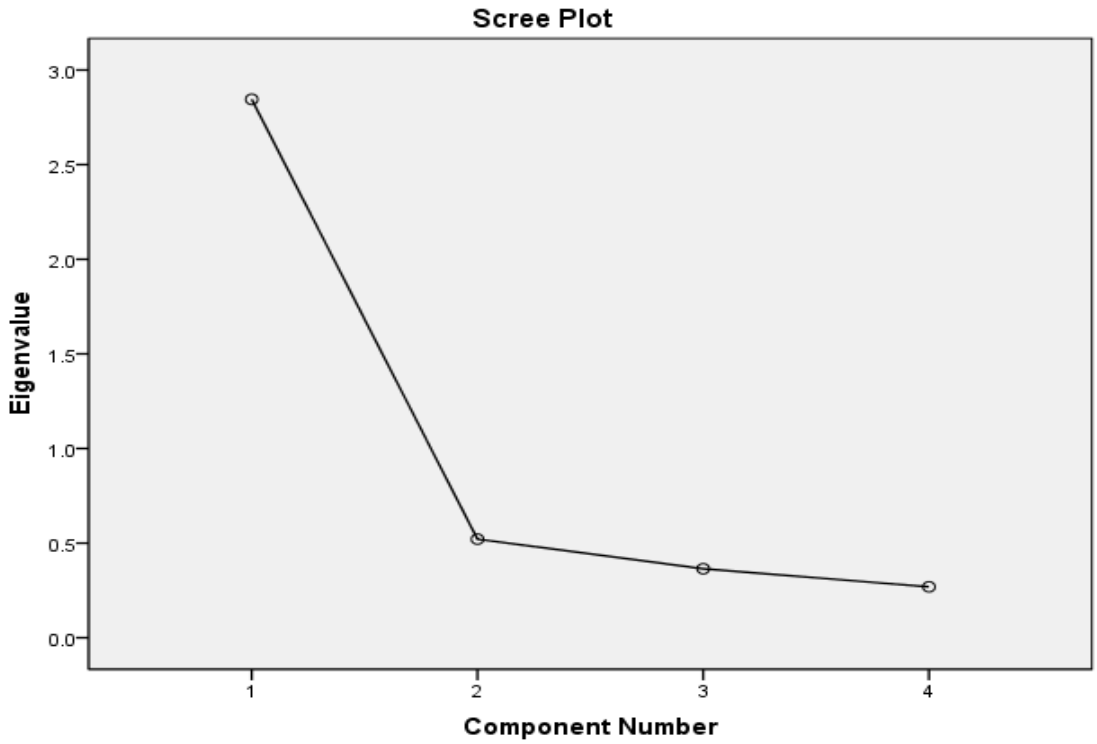


Figure 4.5
*Scree plot for job performance*

### 4.6.2. Factor analysis for role ambiguity

Role ambiguity was measured using a six items instrument. Similarly, test for factorability was carried out to confirm appropriateness with the support of a scree plot. The KMO value was 0.898, which is far greater than what Coakes et al. (2009) had suggested which must be more than 0.6. Meanwhile the Bartlett's test shows a statistically significant ($p < 0.001$) with chi-square value of 791.708.

All six questions were loaded onto a single factor with eigenvalue more than 1.0. The single factor extracted 61.84 percent of the total variance in response. The result is shown in Table 4.5. The scree plot for role ambiguity also suggested that a single factor solution (see Figure 4.6). All the items were chosen to identify with a factor since those factors were with loadings greater than 0.3 according to the guideline by Hair et al. (2006) and since all of them are greater than 0.6, it can then be regarded as high (Kline, 1994).

Table 4.5
*Summary of factor loadings for role ambiguity*

| Questions | Component |
|---|---|
| | 1 |
| RA1certain about job authority | 0.673 |
| RA2 clear goals and objectives for job | 0.837 |
| RA3 have divided time properly | 0.776 |
| RA4 known about responsibilities | 0.83 |
| RA5 known about what is expected | 0.821 |
| RA6 explanation given are clear | 0.769 |
| Eigenvalues | 3.711 |
| Percentage of variance explained = 61.84 %<br>KMO =0.898<br>Bartlett's Test of sphericity:<br>Approx. Chi-Square = 791.708<br>df= 15<br>Sig =.000 | |

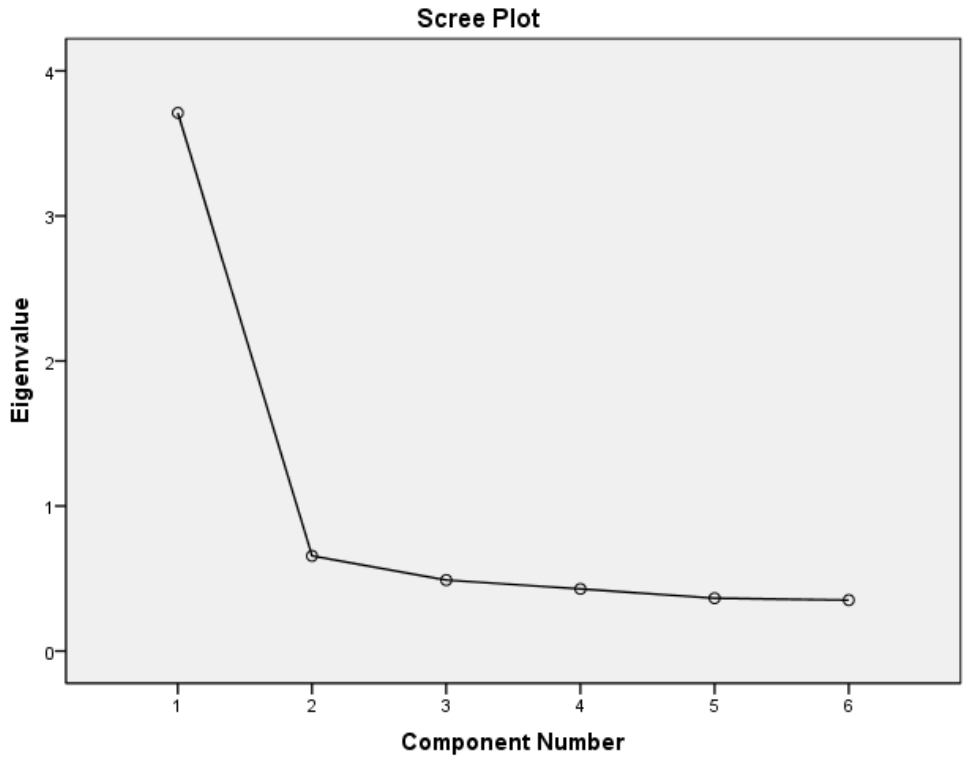


Figure 4.6
*Scree plot for role ambiguity*

### 4.6.3. Factor analysis for competency

Twenty-four items used to measure the variable competency. In order to make sure that the measurements were suitable for factor analysis, the KMO and the Bartlett's Test of Sphericity were employed. The result in Table 4.6 shows that the KMO value of 0.957 exceeded the required 0.6 value as suggested by Coakes et al. (2009) which represents sampling adequacy. The Bartlett's test chi-square value was 5235.586 and there is statistically significant correlation between items ($p<0.001$). Thus, the results indicated appropriateness of using factor analysis.

A principal component analysis was carried out on the twenty-four items in the initial factor analysis process. The initial results show that the twenty-four items were loaded onto two factor with eigenvalue with component 1 having eigenvalue of 13.187 and component 2 with eigenvalue of 1.064 (see Table 4.6). The total percentage variance of factor 1 is 54.945 and 4.432 for component 2. At the same time, the scree plot (see Figure 4.7) has also suggested a two-factor solution for the competency variable with fourteen questions on the first factor and ten questions on the second factor.

The initial factor solutions indicated that all items of the competency variable had loading of more than 0.3 on all factors, thus they were all retained in the factor analysis using the varimax rotation method. The factor loading have all found to be greater than 0.3 while many were greater than 0.6 indicating good correlation between the items and the factor grouping they belong. According

to Kline (1994), when factor loading is greater than 0.6, it can be considered as high while any factor loading that is greater than 0.3 are regarded as moderately high. A varimax rotation was used in order to improve the interpretation as compare to the initial unrotated factor solution (Hair et al., 2006). The result from the varimax rotation can be seen in Table 4.6. Component 1 was renamed as job/technical competency while component 2 was renamed as behavioural competency.

The decision to rename both of the components was based on Birkett's (1993) taxonomy of cognitive and behavioural skills. Birkett (1993) described cognitive skills in general as those that may include technical skills such as the application of technical knowledge with some expertise; analytical/constructive skills as in problem identification and the development of solutions and appreciative skills such as having the ability in evaluating complicated situations and making creative and complex judgments. At the same time, behavioural skills may include among others personal skills - how one responds and handles various situations; interpersonal skills; securing outcomes through interpersonal relationships and organisational skills in which a person is able to secure outcomes through organisational networks.

Table 4.6
*Summary of factor loadings for competency*

| Questions | Component 1 | Component 2 |
|---|---|---|
| C1 teamwork & cooperation | | **0.371**** |
| C2 flexibility | **0.714*** | |
| C3 relationship building | **0.581*** | 0.482 |
| C4 computer literacy | **0.650*** | 0.422 |
| C5 conceptual thinking | **0.660*** | 0.465 |
| C6 technical expertise | **0.531*** | 0.495 |
| C7 organisational awareness | **0.540*** | 0.505 |
| C8 order, quality & accuracy | 0.529 | **0.606**** |
| C9 impact & influence on others | 0.488 | **0.529**** |
| C10 initiative | 0.486 | **0.621**** |
| C11 customer service orientation | **0.583*** | **0.425** |
| C12 developing others | 0.41 | **0.639**** |
| C13 directiveness | | **0.822**** |
| C14 team leadership | | **0.792**** |
| C15 analytical thinking | 0.462 | **0.671**** |
| C16 self-control | **0.642*** | 0.353 |
| C17 organisation commitment | | **0.661**** |
| C18 ability & willingness to learn | **0.681*** | **0.414** |
| C19 interpersonal understanding | **0.741*** | |
| C20 self confidence | 0.494 | **0.510**** |
| C21 personal planning & org skills | **0.649*** | 0.399 |
| C22 written communication | **0.720*** | |
| C23 information seeking | **0.807*** | |
| C24 achievement orientation | **0.796*** | |
| Eigenvalues | 13.187 | 1.064 |
| Percentage of variance explained = 59.38% | | |
| KMO =0.957 | | |
| Bartlett's Test of sphericity: | | |
| Approx. Chi-Square = 5235.586 | | |
| df=276 | | |
| Sig =.000 | | |

* regroup under cognitive (job/technical) competency
**regroup under behavioural competency

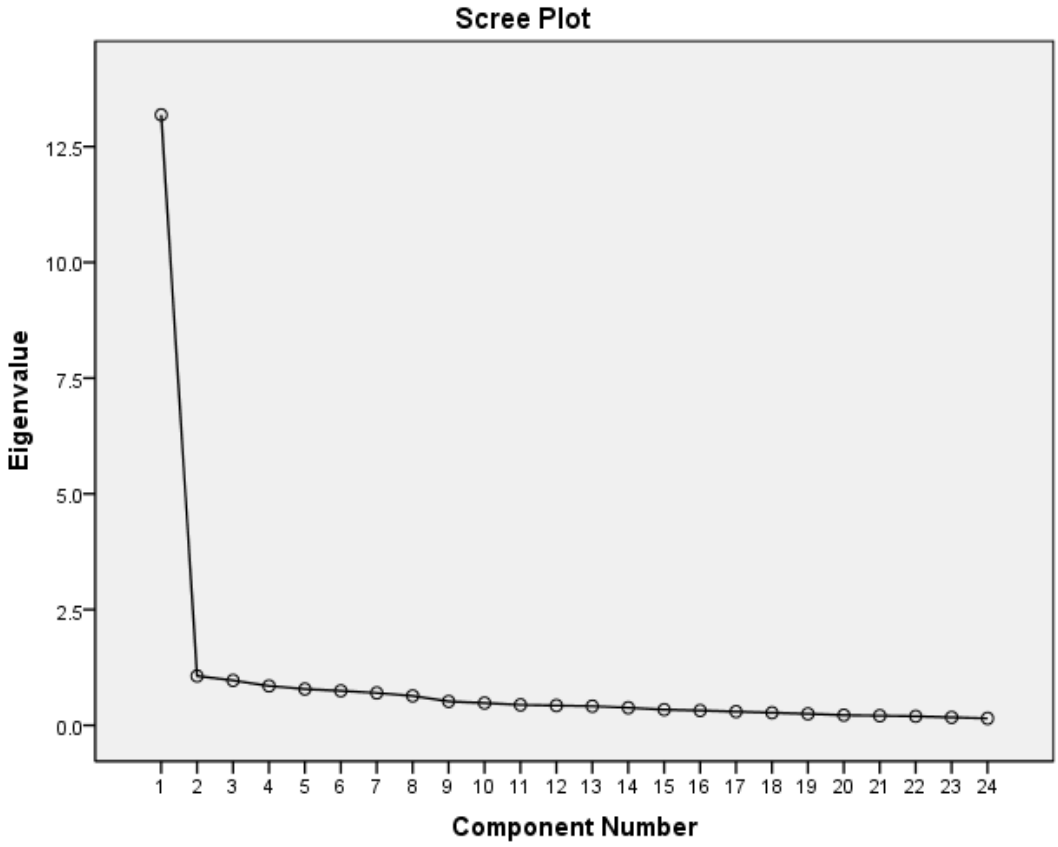


Figure 4.7
*Scree plot for competency*

### 4.6.4. Factor analysis for person-job fit

There were six questions used to measure the person-job fit variable. Test for factorability was carried out in order to confirm the appropriateness of using factor analysis with the support of a scree plot. The KMO value was 0. 876, which was far greater than what Coakes et al. (2009) had suggested which must be more than 0.6. Meanwhile, the Bartlett's test shows a statistically significant ($p < 0.001$) with chi-square value of 848.23. At the same time, all six questions were loaded onto a single factor with eigenvalue more than 1.0.

The single factor extracted 62.97 percent of the total variance in response. The result is shown in Table 4.7.

The scree plot for person-job fit also suggested that a single factor solution (see Figure 4.8). All the items were chosen to identify with a factor since those factors were with loadings greater than 0.3 according to the guideline by Hair et al. (2006). The factor loading have all found to be greater than 0.6 indicating good correlation between the items and the factor grouping they belong. According to Kline (1994), when factor loading is greater than 0.6, it can be considered as high while any factor loading that is greater than 0.3 are regarded as moderately high.

Table 4.7
*Summary of factor loadings for person-job fit*

| Questions | Component |
|---|---|
| | 1 |
| PJ1 goof fit bet job and what being looked for | 0.747 |
| PJ2 attributes looked for fulfilled by present job | 0.829 |
| PJ3 job gives everything that is expected | 0.779 |
| PJ4good match between job demand and skills | 0.796 |
| PJ5 abilities & training fit with job requirement | 0.77 |
| PJ6 personal abilities & edu match with job demand | 0.837 |
| Eigenvalues | 3.778 |
| Percentage of variance explained = 62.97 % | |
| KMO =0.876 | |
| Bartlett's Test of sphericity: | |
| Approx. Chi-Square = 848.23 | |
| df=15 | |
| Sig =.000 | |

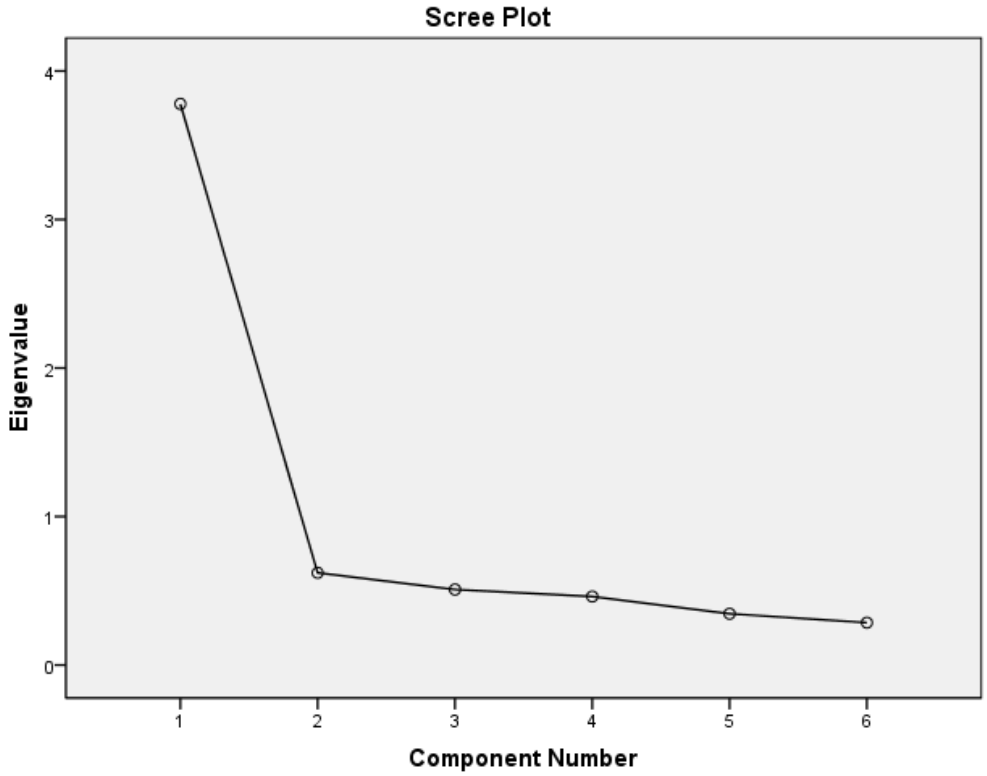


Figure 4.8
*Scree plot for person-job fit*

### 4.7 Reliability Test

The reliability of an instrument refers to its ability to produce consistent and stable measurements. Kumar (1996) explained that reliability could be seen from two sides - reliability (the extent of accuracy) and unreliability (the extent of inaccuracy). Once factor analysis had been carried out, it is essential to test the reliability of the variables again after the process of extraction. The most common reliability coefficient is the Cronbach's alpha, which estimates internal consistency by determining how all items on a test relate to all other items and to the total test, which is the internal coherence of data (Hair et al., 2006). Since reliability is expressed as a coefficient between 0 and 1.00, the

higher the coefficient the more reliable is the test (Hair et al., 2006). Cronbach's alpha implies to the positive relationship of one item with another. Acceptable Cronbach's value must be at least 0.7 to be judged as acceptable (Nunnally, 1978; Nunnally, 1983; Hair et al., 2007).

Table 4.8 presented the Cronbach's alpha value after factor analysis. The factor analysis has resulted in the competency variable having two dimensions, which have been categorized as job/technical competency and behavioural competency as suggested by Birkett (1993). The reliability test found all the variables to have adequate level of internal consistency ranging from 0.86 (for job performance), 0.88 (for role ambiguity and person-job fit); 0.91(for behavioural competency) to 0.95 (for job/technical competency), which all met the threshold of 0.7 as suggested by Nunnally (1983).

Table 4.8
*Reliability test results for all the variables after factor analysis*

| **Variable** | **No of items** | **Cronbach's alpha Value** |
|---|---|---|
| Job Performance | 4 | 0.86 |
| Role Ambiguity | 6 | 0.88 |
| Competency (job/technical) | 14 | 0.95 |
| Competency (behavioural) | 10 | 0.91 |
| Person-job fit | 6 | 0.88 |

### 4.8. Background of the respondents

Table 4.9 shows the distribution of the respondents according to their profiles. There were seven questions asked to the respondents in this study. The questions comprised of gender, age, ethnicity, and nature of business sector, working experience, tenure of service and education level. The characteristics of the respondents are summarized in the Table 4.9.

Table 4.9
*Background of the respondents*

| Questions | Frequency | Percentage |
|---|---|---|
| **Gender** | | |
| Male | 137 | 46.4 |
| Female | 158 | 53.6 |
| **Age** | | |
| Under 19 | 15 | 5.1 |
| 19 to 30 | 145 | 49.2 |
| 31 to 40 | 90 | 30.5 |
| 41 to 50 | 33 | 11.2 |
| Above 50 | 12 | 4.1 |
| **Ethnic** | | |
| Malay | 60 | 20.3 |
| Chinese | 171 | 58.0 |
| Indian | 44 | 14.9 |
| Bumiputera Sabah or Sarawak | 6 | 2.0 |
| Others | 14 | 4.7 |
| **Business Sector** | | |
| Retailers | 28 | 9.5 |
| Wholesaler | 12 | 4.1 |
| Transport & equipment | 12 | 4.1 |
| Professional service | 42 | 14.2 |
| Consultancy services | 17 | 5.8 |
| Education | 44 | 14.9 |
| Hotel | 11 | 3.7 |
| Computer services and communication | 31 | 10.5 |
| Restaurants | 43 | 14.6 |
| Selected services | 21 | 7.1 |

*Table 4.9.....continued*

| | | |
|---|---|---|
| Financial services | 11 | 3.7 |
| Real estate activities | 11 | 3.7 |
| Health | 12 | 4.1 |
| **Working experience** | | |
| < 1 year | 33 | 11.2 |
| 1 to 5 years | 120 | 40.7 |
| 6 to 10 years | 70 | 23.7 |
| > 10 years | 72 | 24.4 |
| **Tenure in present organisation** | | |
| < 1 year | 77 | 26.1 |
| 1 to 5 years | 157 | 53.2 |
| 6 to 10 years | 31 | 10.5 |
| > 10 years | 30 | 10.2 |
| **Education** | | |
| SRP/PMR or below | 35 | 11.9 |
| SPM/MCE/O-Level | 52 | 17.6 |
| STPM/HSC/A-Level | 25 | 8.5 |
| Diploma Level | 64 | 21.7 |
| First Degree | 90 | 30.5 |
| Postgraduate | 29 | 9.8 |

### 4.8.1 Gender

Table 4.9 shows that in terms of gender of the respondents, majority of them were female (53.6 percent, n= 158) compared to male (46.4 percent, n= 137).

### 4.8.2 Age

Almost half of the respondents was made up of those in the age group between 19 to 30 years old (49.2 percent, n= 145) while the second largest group (n=90) of those from the age between 31 to 4o years old which forms 30.5 percent. This was followed by those from the age group from 41 to 50

years old (11.2 percent, n= 33) and those under the age of 19 years old comprised of 5.1 percent (n=15). Only 4.1 percent (n=12) were from the age of 50 years old and above (see Table 4.9).

### 4.8.3 Ethnicity

Of all the 295 respondents, more than a half was Chinese (58.0 percent, n=171), compared to Malay (20.3 percent, n=60) and Indian (14.9 percent, n= 44). The rest were other races (4.7 percent, n=14), while the Bumiputera from Sabah and Sarawak makes the balance (2.0 percent, n=6).

### 4.8.4 Business sector

The respondents of this study were attached to various business sectors of the service sector SMEs. The classification for business sector was based on the Census on Establishments and Enterprises 2005 (Department of Statistics Malaysia, 2006). Most of them were from education (14.9 percent, n=44); restaurant (14.6 percent, n=43) and professional services (14.2 percent, n=42). The remaining of the respondents work in computer services and communication (10.5 percent, n=31); retailing (9.5 percent, n= 28); selected services (7.1 percent, n= 21); consultancy services (5.8 percent, n=17); health (4.1 percent, n= 12); wholesaler (4.1 percent, n= 12); transport and equipment (4.1 percent, n=12); hotel (3.7 percent, n=11); financial services (3.7 percent, n= 11) and finally a balance of 3.7 percent (n=11) is made up of those working in the real estate activities (see Table 4.9).

### 4.8.5 Working experience

Based on Table 4.9, analysis on the background of the respondents had also shown that majority of the respondents had at least 1 to 5 years of working experience (40.7 percent, n= 120). There were 72 respondents or 24.4 percent of the total respondents have had working experience of more than 10 years while those having experience between 6 to 10 years made up the third largest group (23.7 percent, n= 70). Only 11.2 percent (n= 33) have had less than 1 year working experience.

### 4.8.6 Tenure of service

More than half (53.2 percent or 157 respondents) had served between 1 to 5 years in their present organisation. Approximately 26.1 percent (n= 77) of the respondents had a tenure of less than 1 year in their present organisation, while 10.5 percent or 31 respondents had served in the present organisation for a duration between 6 to 10 years and the remaining 10.2 percent (n= 30) respondents had served more than 10 years in their respective organisations.

### 4.8.7 Education level

In terms of education, majority of the respondents were also found to finish their tertiary education at diploma level (21.7 percent, n= 64), while 30.5 percent (n=90) of the respondents possessed a first degree and 9.8 percent, or 29 respondents stated that they had postgraduate education. Those with

SPM/MCE/O-Level made up 17.2 percent (n=52) of the respondents. On the other hand, 11.9 percent or 35 respondents having achieved SRP/PMR or below, with those having STPM/HSC/A-Level forms 8.5 percent (n=25) of the rest of the remaining respondents.

### 4.9 Descriptive Analysis

Descriptive analysis was used to examine the level of job performance, role ambiguity, competency and person-job fit. Descriptive analysis provides information to describe a set of factors in a situation by providing the frequencies, measures of central tendency and dispersion (Sekaran, 2005). Since the measurements of this study utilizes 7 point Likert scale, the range of the scale will have a range between 1 to 7 with 1 regarded as the lowest score and 7 is regarded as the highest score.

In order to determine the perception level of these variables, computation was made on the mean using the middle point to separate the low, moderate and high level as mentioned by Healey (2005). Mean score is divided to three levels; that are low (mean = 1.00 to 3.00), moderate (mean =3.01 to 5.00) and high (mean =5.01 to 7.00). The results of descriptive analysis were summarized in Table 4.10.

Based on Table 4.10, it shows that mean value are ranged from 2.50 to 5.65. The mean level of job performance among respondents was high (mean=5.65, sd =0.78). Meanwhile the mean level for role ambiguity was low

(mean = 2.50, sd =0.81). It is also found that the respondents also had high mean for competency (mean =5.47, sd =0.89) and person-job fit (mean=5.13, sd=0.83). Similarly, the dimensions for competency had also demonstrated high mean with job/technical competency having a mean score of 5.48 while behavioural competency had a slightly higher mean of 5.56.

Table 4.10
*Descriptive Analysis of the Variables*

| | N | Minimum | Maximum | Mean | Std. Deviation | Level |
|---|---|---|---|---|---|---|
| Job performance | 295 | 3.00 | 7.00 | 5.65 | 0.78 | High |
| Role ambiguity | 295 | 1 | 5.17 | 2.50 | 0.81 | Low |
| Competency | 295 | 3.42 | 7.00 | 5.47 | 0.89 | High |
| Person-job fit | 295 | 2.83 | 7.00 | 5.13 | 0.83 | High |
| job_comp | 295 | 3.00 | 7.00 | 5.48 | 0.92 | High |
| behav_comp | 295 | 3.33 | 7.00 | 5.56 | 0.90 | High |

### 4.10 Inferential statistics

In order to answer the research questions of this study, there were two types of inferential statistics utilized. The first method was the correlation analysis while the second method was the multiple regression.

#### 4.10.1 Correlations among variables

This section will test the questions discussed in chapter 3. A Pearson correlation was carried out to test the hypotheses in this study in which it examined the relationship among variables which is job performance as the

dependent variable and three other independent variables comprised of role ambiguity, competency (with 2 newly added dimensions i.e. job/technical and behavioural competency) and person-job fit. Table 4.11 presents the inter-correlations between all the variables in this study.

The correlation coefficient (r) indicates the strength of the association between any two metric variables (Hair et al. 2006). The sign (+ or -) indicates the direction of the relationship with a value that range between +1.00 to -1.00. The value +1.00 indicating a perfect positive relationship, 0 indicating no relationship and -1.00 indicating a perfect negative or reverse relationship (Hair et al., 2006). In this study the level of significance was at 5 percent (0.05) which is generally accepted conventional level in social sciences research (Sekaran & Bougie, 2009).

Thus in testing the hypotheses, null hypotheses will be rejected if the significance p value is less than 0.05 which indirectly means the alternate hypotheses will be accepted, while the opposite will take place should the significance p value is greater than 0.05.

Table 4.11

*Correlation matrix of the variables*

| | | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| 1.Job performance | Pearson Correlation | 1 | -.686** | .549** | .547** | .518** | .478** |
| | Sig. (2-tailed) | | 0 | 0 | 0 | 0 | 0 |
| | N | 295 | 295 | 295 | 295 | 295 | 295 |
| 2. Role ambiguity | Pearson Correlation | -.686** | 1 | -.585** | -.575** | -.573** | -.550** |
| | Sig. (2-tailed) | 0 | | 0 | 0 | 0 | 0 |
| | N | 295 | 295 | 295 | 295 | 295 | 295 |
| 3. Competency | Pearson Correlation | .549** | -.585** | 1 | .977** | .925** | .521** |
| | Sig. (2-tailed) | 0 | 0 | | 0 | 0 | 0 |
| | N | 295 | 295 | 295 | 295 | 295 | 295 |
| 4. job_comp | Pearson Correlation | .547** | -.575** | .977** | 1 | .850** | .522** |
| | Sig. (2-tailed) | 0 | 0 | 0 | | 0 | 0 |
| | N | 295 | 295 | 295 | 295 | 295 | 295 |
| 5. behav_comp | Pearson Correlation | .518** | -.573** | .925** | .850** | 1 | .478** |
| | Sig. (2-tailed) | 0 | 0 | 0 | 0 | | 0 |
| | N | 295 | 295 | 295 | 295 | 295 | 295 |
| 6. Person-job fit | Pearson Correlation | .478** | -.550** | .521** | .522** | .478** | 1 |
| | Sig. (2-tailed) | 0 | 0 | 0 | 0 | 0 | |
| | N | 295 | 295 | 295 | 295 | 295 | 295 |

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

Table 4.11 indicates that job performance is positively correlated with the competency construct ($r = 0.549$, $p<0.01$) as well as with the dimensions of job competency ($r = 0.547$, $p<0.01$) and behavioural competency ($r = 0.510$, $p<0.01$) and with person-job fit ($r = 0.478$, $p<0.01$). However, job performance is negatively correlated with role ambiguity ($r = -0.686$, $p<0.01$). Based on this analysis, it can be acknowledged that job performance of employees in the service sector SMEs had a strongest association with role ambiguity, followed by competency while having moderate correlation with person-job fit. Analysis of from Table 4.11 had also indicated that all the correlations among the

variables were generally considered as moderately low which is less than 0.7, thus according to Nunnally and Bernstein (1994), these conditions may also indicate that the potential occurrence of multicollinearity among the independent variables are low. This was further evidenced through the regression analysis as shown in Table 4.15 with the Variance Inflation Factor (VIF) value less than the threshold value of 10.0 (Sekaran & Bougie, 2009).

### 4.10.2 Multiple regression

In order to answer the research question 4 (RQ4), a multiple regression was used to examine to effect of independents variables to dependents variables. The regression coefficients indicated the relative importance of each of the independent variables (role ambiguity, job/technical competency, behavioural competency and person-job fit) in the prediction of the dependent variable (job performance). The individual correlations between the independent variables and the dependent variable will collapse into multiple r (multiple correlation coefficient). The square of multiple r is known as R-squared ($R^2$) which reflects the amount of variance explained in the dependent variable by the independent variables (Sekaran & Bougie, 2009). Table 4.15 (see p.150) shows the overall result of the multiple regression between the independent variables and the dependent variable of this study research model.

### 4.11 Hypotheses testing

**RQ1: Is there a significant relationship between role ambiguity and the job performance of service sector SMEs employees?**

Table 4.12 describes the correlation matrix between job performance and role ambiguity. It is found that the correlation matrix (r) is -0.686 and significant value (p) is less than 0.01. Hence it is concluded that there is a significant relationship between job performance and role ambiguity ($r=-0.686$, $p<0.01$). According to Davis (1971), this relationship is strong when the 'r' was ranged from 0.50 to 0.69. Thus, the result supports hypothesis H1 that there is a significant relationship between role ambiguity and job performance.

Table 4.12
*Relationship between role ambiguity and job performance*

| | **Job performance (r)** | **Sig.** |
|---|---|---|
| Role ambiguity | -0.686 | .000 |

**RQ2: Is there a significant relationship between competency and the job performance of service sector SMEs employees?**

Research question 2 (RQ2) examined the relationship between competency and job performance. The analysis also tested H2 with additional two perspectives (H2a and H2b) resulted from the factor analysis for the competency variable:

H2a. There is a significant relationship between job/technical competency and job performance of employees working in the service sector SMEs.

H2b. There is a significant relationship between behavioural competency and job performance of employees working in the service sector SMEs.

Results of Pearson correlation in examining the relationship are shown in Table 4.13. It was found that there was a significant relationship between competency and job performance ($r=0.549$, $p<0.01$). Further inspections of two dimensions of competency had also shown that both of the dimensions were significantly related to job performance. Job/technical competency is significant at $r=0.547$ and $p<0.01$; while behavioural competency is significant at $r=0.518$ and $p<0.01$. Thus, hypotheses H2a and H2b were well supported.

Table 4.13
*Relationship between competency and job performance*

| | **Job performance** | |
|---|---|---|
| | ***R*** | ***Sig.*** |
| Competency | 0.549 | 0.000 |
| Job/technical competency | 0.547 | 0.000 |
| Behavioural competency | 0.518 | 0.000 |

**RQ3: Is there a significant relationship between person-job fit and the job performance of service sector SMEs employees?**

This section attempted to answer RQ3 and H*3, which* stated that there is a significant relationship between person-job fit and job performance. The result is shown in Table 4.14. It is found that there was also a significant relationship between job performance and person-job fit ($r=0.478$, $p<0.01$). Davis (1971) stated that the 'r' ranged ±0.30 to ±49 shows the moderate strong relation among the variables. Hence, this study accepted H3.

Table 4.14
*Relationship between person-job fit and the job performance*

| | **Job performance (r)** | **Sig.** |
|---|---|---|
| Person-job fit | .478 | .000 |

**RQ4: Which among the three variables – role ambiguity, job competency and person-job fit would have a more significant effect on the job performance of service sector SMEs employees?**

In order to obtain the answer for RQ4, a multiple regression analysis was utilized. The analysis provided the result of the integration between the independent variables and the dependent variable. The result of the integration can be seen from Table 4.15.

Table 4.15
*Effect of role ambiguity, competency and person-job fit on job performance*

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | VIF |
|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | |
| 1 | (Constant) | 5.547 | 0.397 | | 13.97 | 0 | |
| | Role ambiguity | -0.504 | 0.052 | -0.522 | -9.643 | 0 | 1.739 |
| | Competency | 0.173 | 0.046 | 0.198 | 3.746 | 0 | 1.664 |
| | Person-job fit | 0.082 | 0.048 | 0.087 | 1.699 | 0.09 | 1.569 |
| *$R^2$ =0.509*<br>*F =100.641*<br>*Sig. = 0.000* | | | | | | | |

Thus with the purpose of determining the percentage of variance in the dependent variable which was explained by the variation associated with all the independent variables, reference to the R-squared ($R^2$) was made. It is also known as the measure of goodness of fit (Hair et al., 2007). Thus, when the value of $R^2$ is near to 0, it shows that most of the variation cannot be explained by the regression model. Conversely, when the value $R^2$ is near to 1, then the variation in the dependent variable can be explained by the regression model (Sekaran & Bougie, 2009).

Consequently role ambiguity, competency and person-job fit were found to give a high impact to job performance for 50.9 percent ($R^2$=0.509, F=100.651, p<0.01). In order to determine which among the three independent variables plays an important role in influencing the dependent variable, reference is made to the regression coefficients. In view of the similarity of measurement

scaled utilized in this study, the standardized regression coefficient Beta is used as suggested by Hair et al. (2006).

Inspection of Table 4.15 however shows that only two variables can be a significant indicator to job performance, that are role ambiguity (B= -0.522, t=9.643, p<0.01) and competency (B=0.198, t=3.746, p<0.01) while person-job fit have found to be insignificant indicator to job performance as compared to the other two variables in a multivariate context although during the bivariate analysis, person-job fit had been found to be significantly related to job performance (see Table 4.14). Role ambiguity was also found to have higher 'B' value compared to competency and person-job fit. Hence, this study suggests that among three independent variables studied, role ambiguity gives more effect towards job performance, compared to competency and person-job fit.

In addition, it is also important to assess the multicollinearity among the independent variables in a multiple regression model. The independent variables should be free from multicolinearity problem or else estimation of the regression coefficient cannot be made (Sekaran & Bougie, 2009). Inspection of *variance inflation factors* (VIF) measure had shown the value of VIF was less than the recommended thresholds value of 10 (VIF <10) indicated that this model is free from multicollinearity problem (Hair et al. 2006).

### 4.11.1 Summary of hypotheses testing

Based on the above-mentioned findings, a summary of all of the results of the hypotheses testing can be found in Table 4.16.

Table 4.16
*Summary of hypotheses testing*

| Hypotheses | Explanation | Result |
|---|---|---|
| H1 | There is a significant relationship between role ambiguity and job performance of employees working in the service sector SMEs. | Supported (r=-0.686, p<0.01). Supported |
| H2 | There is a significant relationship between competency and job performance of employees working in the service sector SMEs. | Supported (r=0.549, p<0.01). |
| H2a | There is a significant relationship between job/technical competency and job performance of employees working in the service sector SMEs. | Supported (r=0.547 and p<0.01) |
| H2b | There is a significant relationship between behavioural competency and job performance of employees working in the service sector SMEs. | Supported (r=0.518 and p<0.01 ) |
| H3 | There is a significant relationship between person-job fit and job performance of employees working in the service sector SMEs. | Supported (r=0.478, p<0.01) |

### 4.12 Chapter summary

This chapter had presented the results of the data analysis and all the relevant testing that have been carried out. Before any form of data screening can be done, a non-response bias was carried out using the independent t-test. It was then followed by data screening, which includes missing data,

normality and then the outliers test. Once this is done, factor analysis was carried out to order to determine the validity of the instruments, which had resulted in the creating of two dimensions for the competency variable, and the instruments were again tested for reliability. This was then continued by a descriptive analysis before an inferential analysis was done. Correlations and regressions analysis were then carried out in order to test the hypotheses of this study.

Overall, the findings revealed that all the independent variables, which comprised of role ambiguity, competency and person-job fit have significant relationships with the job performance as the dependent variable. The discussion on the results, implications and recommendations are presented in the last chapter, which is Chapter 5.

# CHAPTER FIVE

# CONCLUSION AND RECOMMENDATION

## 5.1 Introduction

This chapter provides the summaries and the discussions of the research finding results based on the research questions and hypotheses. It also includes the implications from theoretical and practical perspectives. This was followed by the limitations of the study and ended with suggestions for future research directions.

## 5.2 Summary of research findings

This study was carried out among the employees who were working in the service sector SMEs in Malaysia. This study explored whether there exists significant relationships between three independent variables, which comprised of role ambiguity, competency and person-job fit and the job performance of employees in the service sector SMEs. At the end of the data collection period, 300 responses were obtained which resulted in 20 percent response rate. All the necessary initial screenings were carried to ensure that the collected data were ready for further analyses. Data analysis was performed using descriptive and inferential statistics employing the SPSS18.0.

Overall summary of the findings are as the followings:

- More than 50 percent of the employees of the service sector SMEs in Malaysia were made up of female (53.6 percent) as shown in Table 4.9. This is expected as females have been found to possess suitable disposition to work in a service sector setting which requires high degree of patience and care (femininity) in dealings with clients. As such, women are believed to possess naturally good social skills required by employers in the service-based economy (McDowell, 1997).

- The largest age group of the respondents was made up of those ranging from the age 19 to 30 years old while the smallest group comprised of those from the age of 50 and above (see Table 4.9). This is in accordance to the report by Census of Establishments and Enterprises, 2005 as reported by Aris (2007).

- The survey also found that the majority of the respondents were Chinese which forms more than half (58 percent) of the total respondents while the Bumiputera Sabah and Sarawak made up only 6 percent of the total respondents.

- Among all of the respondents that was classified according to business sector (based on the Census of Establishments and Enterprises 2005), those coming from the education sector responded the most in this

survey. Perhaps this is due their awareness about the importance of research thus the willingness to participate is greater as compared to others due to their exposure towards research within their context of organisation.

- In terms of the working experience, most respondents had at least 1 to 5 years of working experience (approximately 40 percent) in total while only small number of respondents (approximately 11 percent) had only less than a year of working experience or less (see Table 4.9).

- The findings also revealed that almost one third of the respondents served less than a year in their present firms, which shows that the majority of employees working the service sector SMEs change job quite frequently in the short term.

- The level of education among the respondents' shows that majority (more than 50 percent) of them received tertiary education with those having first-degree forms the largest number (approximately 31 percent followed by those with diploma holders of around 21 percent). The finding was in contrast with the report from Census of Establishments and Enterprises, 2005 in which it was reported that majority of the employees working in the service sector SMEs possessed only SPM and below (a total of 72 percent ) which forms the largest group (Aris, 2007).

- There seems to be a significant relationship between role ambiguity, competency and person job-fit and job performance of employees of service sector SMEs.

- Role ambiguity was found to be the strongest predictor of job performance as compared to competency and person job fit. At the same time, person-job fit was found to be less significant in affecting the job performance of employees when role ambiguity and competency were present.

### 5.3 Discussion of the findings

This following section discusses the findings for each of the hypotheses, which were based on the research questions of this study. All the results of the each of the hypotheses were discussed and concluded against the previous findings as found in the literature review.

**Hypothesis 1**: There is a significant relationship between role ambiguity and job performance of employees working in the service sector SMEs.

Role theory as expounded by Kahn et al. (1964) stated that role ambiguity (lack of the necessary information with regards to a given position), will result in a job holder engaging in a coping behaviour in an attempt to solve an unclear tasks in a move to overcome stress which in turns will distort the reality of the job requirements. This will then lead to a person feeling

dissatisfied with his role, experiencing anxiety and thus perform less effectively. The result of this study found that there is a significant relationship between role ambiguity and job performance (see Table 4.12). Therefore, the hypothesis is supported in this study. Furthermore, the result of this hypothesis had also found that role ambiguity was negatively related to job performance in accordance with past researches (e.g. Jackson & Schuler, 1985; Kahn et al., 1964; Chang & Chang, 2007; Bhuian et al., 2005; Singh, 1993). In other words, when the level of role ambiguity increases, the level of job performance of employees will reduce as employees will not be able to cope with given tasks and thus perform less effectively.

The reason for this finding can be explained by the fact that employees in a service setting are particularly susceptible to role ambiguity especially those in SMEs context as they generally receive little training and with minimal supervision (Dubinsky & Mattson, 1979). Furthermore, Price (1994) found that small firms tend to have less formal human resource management (HRM) practices thus this tendency was also extended in their training policy as well. Since SMEs have shorter line of communication, problems tend to be solved faster and ease of readjustment may also be the reason behind this informal practice (Price, 1994).

**Hypothesis 2:** There is a significant relationship between competency and job performance of employees working in the service sector SMEs. The hypothesis will also test the dimensions of the competency variables, which had been yielded through factor analysis process.

- H2a. There is a significant relationship between job/technical competency and job performance of employees working in the service sector SMEs.
- H2b. There is a significant relationship between behavioural competency and job performance of employees working in the service sector SMEs.

The results revealed that all the hypotheses in relation to competency were well supported. The results showed that competency is significantly positively related to job performance (see Table 4.13). Similar results were also found between job/technical competency and behavioural competency with job performance of employees in the service sector SMEs. This result is consistent with Dhanakumars (2001), Linders (2001), Kaagari and Munene (2007) and Tzeng (2004) whose findings revealed that competency had a significant relationship to the job performance of employees.

Past researches that obtained similar findings have all come to term that in order for employees to perform well in their job, it is very important for them to be competent. McClelland (1973) suggested that job performance of employees could be predicted by their competencies. Thus is can be concluded that if the service sector SMEs intend to improve the job

performance of the employees, issue related to employees competencies must be taken into consideration.

In addition, to manage continuously the performance of the employees, firms will have to consider using competency as the yardstick to measure the job performance of employees (Moore, Cheng & Dainty, 2002). In other words through competencies, an individual performance can be made known, and many organisations have found to adopt competence-based training as a technique to improve the job performance of employees. The need to look at employee performance from the competency perspective arises when the required competency for efficient job performance is lower than the one possessed by the employee (Agut & Grau, 2002).

**Hypothesis 3:** There is a significant relationship between person job-fit and job performance of employees working in the service sector SMEs.

The correlation results revealed that this hypothesis has been supported. There is a significant positive relationship between person-job fit and job performance (see Table 4.14). Person-job fit is defined as the compatibility that may exist between a person and the specific job demand (Kristoff, 1996; Cable & DeRue, 2002). As explained by Caudron (1997), employees would like to have jobs that is significance and meaningful and able to provide satisfaction internally as well as with external rewards.

Thus the findings of this study suggested that when employees are fit with the job that they are doing, they would tend to exert more effort in carrying out their duties, which then leads to greater job performance level. Demonstration of such behaviour is in accordance to Lewin's (1951) Field theory as cited by Hamid and Yahya (2011) in which individuals will engage in good working behaviour if they are able to interact well with their job environment.

Thus, when a good person-job fit exists, employees will be able to perform better. This finding further supported the fact that person-job fit is a good source of motivation to employee job performance as explained by Barrett's Congruence theory (1978) as cited by Lawrence (2004) that the congruence that exists between one's preference and the KSAs leads to motivational outcome.

**Research question 4:** Which is the most significant factor among the three variables - role ambiguity, competency and person-job fit that may affect the job performance of employees working in the service sector SMEs?

In order to determine the relative contribution of the independent variables, which comprised of role ambiguity, competency and person-job fit, a multiple regression analysis was performed. The result revealed that in general the independent variables of this research model were found to give a high impact to job performance (See Table 4.15). Role ambiguity, competency and person-job fit were found to give a high impact to job performance for 50.9 percent ($R^2$=0.509, F=100.651, p<0.01).

In order to determine which among the three independent variables plays an important role in influencing the dependent variable, reference is made to the regression coefficients. In view of the similarity of measurement scaled utilized in this study, the standardized regression coefficient Beta was used. However the result shows that only two variables can be a significant indicator to job performance, that are role ambiguity (B= -0.522, t=9.643, p<0.01) and competency (B=0.198, t=3.746, p<0.01) while person-job fit was found to be relatively less important as compared to role ambiguity and competency in a multivariate context in predicting job performance of employees. Role ambiguity was also found to have higher 'Beta' value compared to competency and person-job fit. Hence, this study suggests that among three independent variables studied, role ambiguity gives more effect towards job performance, compared to competency and person-job fit.

Therefore based on this finding, it is important to note that in an effort to improve the job performance of employees, problem of role ambiguity must be first countered before embarking in improving the competency of the employees. The possible reason for this finding, is that an employee will not be able to perform well should they are not equipped first with the knowledge related to the job or tasks that they are supposed to do. Not having good understanding on the role that they are supposed to play will give rise to less effective job performance. Only after having known what their roles are, employees will be keen to improve their skills and abilities, which they can see the connections with the role that they are playing.

Additionally, the result from the multiple regressions may also indicate that role ambiguity is imperative to job performance along with competency while person-job fit appears to be less importance with the presence of these two factors. Nevertheless, person-job fit had received well-documented results to have effect on the job performance of employees (Lauver & Kristof-Brown, 2001; Saks & Ashforth, 2002; Shin, 2004; Kristof-Brown et al., 2005; Greguras & Diefendorff, 2009).

## 5.4. Implications

This section discusses the implications of the findings of this study to the service sector SMEs as well researchers of SMEs.

### 5.4.1 Theoretical implications

This study was able to add on to the present research on SMEs in Malaysia concerning employees' job performance. Importantly it was able to fill in the disparity of research in relation to service sector SMEs. As stated before although there were many research interest on determinants of job performance (Muczyk & Gable,1987; Motowildo & Van Scotter,1994; Delery & Doty,1996; Van Scotter & Motovildo,1996; Harrison, Rainer, Hochwarter & Thompson, 1997; Hurtz & Donovan,2000; Canty, 2005; Messer, 2007; Sommer-Krause, 2007), most of them were conducted abroad, and thus very little evidence exist to understand the job performance of employees in the Malaysian context especially those working in the service sector SMEs. Since

many past studies on SMEs tend to focus on the manufacturing SMEs, this study thus contributes to the current literatures on service SMEs that are generally quite limited.

Furthermore, researches on SMEs in Malaysia are quite limited to the performance of SMEs firms rather than looking at the individuals' performance (e.g. Hashim, 2000; Sohail & Hoong, 2003; Alam & Ahsan, 2007; Jamaludin & Hasun, 2007). Therefore, this study will contribute to the dearth of research in relation to the job performance of employees. At the same time, research on job performance of employees that work in the service sector in Malaysia were conducted mainly on the public sector employees (e.g. Azmi, 2010) which created a deficiency of studies on the service sector SMEs. Therefore through this research, employees especially those in the service sector SMEs were given attention so as to help in understanding the reasons behind poor performance that affects the level of productivity.

In addition, the hypotheses testing which were based on the research framework of this study confirmed that the job performance of those employees working in the service sector SMEs can be influenced by role ambiguity, competency and whether they are fit to the job that they doing. As a result, the findings from this study will add on to the previous researches that will provide better insights on how employees can be assisted should improvement in their job performance are an issue of concerns among the researchers. This is because past researches had made little attempt to carry out studies on job performance that focuses on employees working in the

service sector SMEs. This condition may be due to the assumptions made in previous studies that regarded all employees of the SMEs as the same regardless of the sectors they were in though they had been proven to be different (Bowen & Ford, 2002; Bowen & Hallowell, 2002). Thus, this study will pave way for more research specifically on employees working in the service sector SMEs.

Another theoretical implication of this study would be on the usage of Campbell's (1990) theory of job performance in explaining the job performance of employees. Concerning this, the current study had further strengthened the idea that it is necessary to carry out studies on employee job performance by being focus on what actually constitutes job performance. In addition, knowing specifically the necessary elements that can predict the job performance of employees which comprised of what (declarative knowledge), how (the necessary procedural knowledge and skills) and having the effort (motivation) to do so, will allow the development of more specific studies on the job performance to be carried out in the future.

Therefore, this study was able to provide evidence that job performance of employees working in the service sector SMEs in Malaysia can be significantly influenced by role ambiguity, competency and person-job fit.

### 5.4.2 Practical implications

Generally, this research provides better understanding of the factors that can influence the job performance of employees working in the service sector SMEs in Malaysia. Above all, managers and owners of SMEs from the service sector will have better understanding on the factors that can affect the job performance of their employees. By having this understanding, firms will be able to strategise on the approaches that can be taken to ensure that employees are given necessary information so that they are able to perform with adequate knowledge before undertaking job duties and responsibilities, thus minimizing the problem of role ambiguity.

Therefore, firms will have to look into how they can eliminate role ambiguity by first determining the causes for role ambiguity to exist. Perhaps firms from the service sector SMEs should consider carrying out job analysis activities so that a more specific job description can be developed. This will help employees to have greater clarifications about their role. Research on role clarity had revealed the importance of role clarity especially in relation to service quality because it had found to be strongly related to service quality performance (Murkherjee & Maholtra, 2006).

Apart from that, the findings from this study had also shown that competency can affect the job performance of employees. The finding can be supported by many past researches, which confirmed that SMEs in general tend to experience problem of low skills and low productivity among the employees

(e.g. SMIDEC, 2002; Wang, 2003; Ting, 2004; UPS, 2005; Saleh & Ndubisi, 2006).

Additionally, in view of the current focus, which placed service sector as the drivers for the Malaysian economic development, there should be more effort to be carried out in ensuring that formal human resource management is in place to substitute the less formal approach in managing SMEs. This is necessary so that a more concerted effort in improving the level of competency among the employees of the service sector SMEs through training and development program can be executed. At the same time, this study had also managed to highlight the existence of two importance competencies. The first one was mainly focusing on helping employees in carrying out their day-to-day work, which is known as the job/technical competencies. The second one was identified as the behavioural competency, which is regarded as necessary since it is important for employees to be able to relate to other people either one to one or in-group basis while carrying out their duties.

On the other hand, even though person-job fit was found to be less significant when the role ambiguity and competency variables were present, nevertheless this study revealed that person-job fit on its own can be a significant predictor to employee job performance and may affect the motivation of employees as suggested by Barrett (1978). Since person-job fit is being associated with employees having the right skills and abilities to fulfil

job demands, it is more likely for them to perform at higher level and to remain on the job when fit existed (Hecht and Allen, 2005; Kristof-Brown et al., 2005). Interestingly, since the nature of the service setting requires one constantly if not all the time to have engage in face-to-face contact with customers, the level of motivation would certainly be an important factor in determining the quality of service delivery. Hence, if a person does not possess the right attitude toward the job, the possibility of rendering a good service is potentially minimal. Accordingly, this study had shown that the person-job fit is a significant predictor to job performance. Therefore, it is recommended that owners and managers of the service sector SMEs to consider person-job fit in their attempt to hire employees in order to achieve the desired job performance.

In addition, in view of the considerable numbers of female employees that serve in the service sector SMEs and the recognition of their contributions, better human resources policy have to be geared up. The existence of policy that pay emphasis on family and work life balance will encourage more women to come forward in joining the labour market. This is necessary in view of the current economic orientation of Malaysia that is moving towards the services sector.

### 5.5 Limitations

There were several limitations relevant to this study. First is regarding the response rate. This study obtained a response rate of 20 percent. Even

though this response rate is regarded as normal within research done in the Malaysia context, it would be even better should the response rate was to be higher. Although non-response bias test found no significant differences between those that responses and those that do not; the less than expected response rate would somehow resulted in less desirable precision and confidence of the study from the statistical perspective. It is then necessary to consider sending more reminders either in a form of postcards or phone calls to encourage employees to respond to the survey. Besides that, it is also important to consider a provision of incentives to the respondents as a way to attract greater participations, which may help in overcoming the problem of low response rate.

In addition, due to budget constraint, samples obtained were limited to several states in Malaysia as it is not possible to collect samples from every single state. This has resulted in this study having lesser representations of employees working in the service sector SMEs from all states in Malaysia. On top of that, this study was mainly based on the Census of Establishments and Enterprises of year 2005 (Department of Statistics, 2006) which may not provide the most updated information of the SMEs sectors in Malaysia. Nonetheless this issue cannot be avoided as there has yet to be made available the latest census as of today.

## 5.6 Suggestion for future research

This study had enhanced the knowledge concerning SMEs especially about service sector SMEs in Malaysia. This research has been undertaken in line with the current government policy in pursuing the development of the services sector in Malaysia. Thus, this study had paved way for future researches, which will not only complement this study but will also enhance the research framework further.

Hence, several additional researches could be considered further by interested scholars in relation to service sector SMEs. One of the future studies should look into carrying out a comparative study between the service and the manufacturing SMEs in Malaysia concerning the variables that were used in this study. This can be useful in determining whether there is any difference in results should the variables used in this study were examined among the employees working in the manufacturing SMEs. The knowledge obtained from such research may permit policy makers to put in a more concerted effort in trying to enhance the job performance of employees in their effort to boost the employee productivity.

The result from this study had shown that the job performance of employees in the service sector SMEs are affected by three factors, which comprised of role ambiguity, competency and person-job fit. In order to identify specifically the approaches that can be used to enhance the job performance of those employees, it is suggested that future research to be conducted on the

specific areas of business sector. Thus, future research may considers specific business sectors such as education, hotel, retailing, business services which are under the twelve key areas the national transformation programme (NKEAs) (PEMANDU, 2011), so that a more specific strategies can be designed to meet the needs of employees of the specific sectors. Additionally, future research can also consider the inclusion of the organisational factors to complement the current study, which was mainly focusing on individual level factors in order to broaden the scope of knowledge pertaining to employees' job performance.

Meanwhile, through factor analysis, results had revealed that competency can be divided into two dimensions comprising on job/technical competency and behavioural competency. Thus future research can look into identifying specifically the types of job/technical or behavioural competency that are critical to those working in the service sector SMEs so that a more concrete approach can be taken to enhance their skills and abilities. This can be carried out by using the qualitative approach since through this method researcher will be able to propose a conceptual framework that represents the true nature of employees (Hair et al., 2007) from the service sector SMEs which, can then be tested using a quantitative approach. The approach of testing quantitatively a developed conceptual framework had been widely used in the past researches (e.g. Peppermans et al., 2001, Zhiong & Shi, 2004; Cardy & Selvarajan, 2006).

Albeit person-job fit found to be relatively less important as compared to role ambiguity and competency in a multivariate context (see Table 4.15), it was significantly related to job performance in a bivariate correlation. This study could not reveal the reason behind the diminishing effect of person-job fit on the job performance of employee in the presence of role ambiguity and competency, and so it may need to be further investigated. Future research could also investigate whether person-job fit will be a suitable intervening variable in relation to role ambiguity and competency.

Finally yet importantly, in incorporating some of the given suggestions, one of the future research frameworks that can be considered by any interested parties can be seen in Figure 5.1(see p.173).The suggested framework uses person-job fit as the moderating factor in the relationship between role ambiguity, competency and the job performance of employees. This was proposed in view of the potential effect of person-job fit on the relationship given its ability to influence job performance of employees as evidenced through the bivariate analysis of this study. Perhaps the reasons behind the diminishing effect of person-job fit on the job performance of employee in the presence of role ambiguity and competency of this study can then be answered.

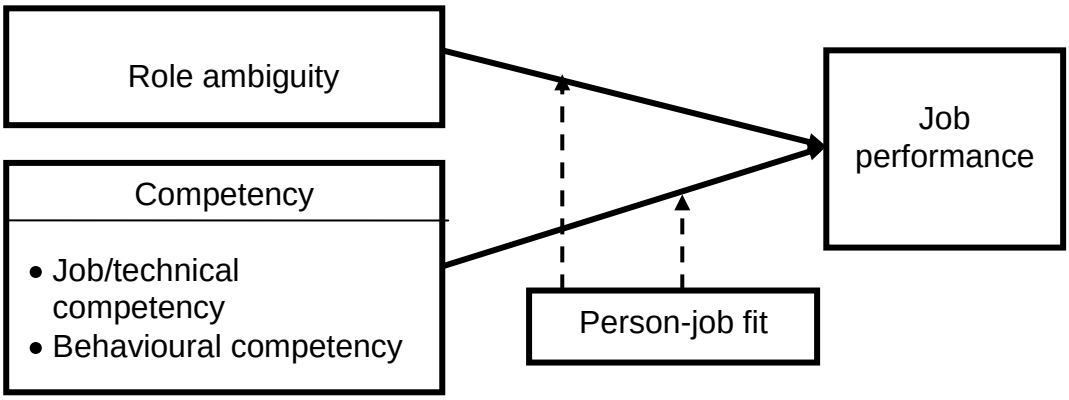


Figure 5.1: Future research framework

## 5.7 Conclusion

The SMEs sector in general has been recognized as the engine for economic growth of Malaysia. As Malaysia intends to become a developed nation there had been a shift towards the service industries and with this, the service sector SMEs would certainly play an important role in realizing that effort. Furthermore, among all the services establishments in Malaysia, majority of them came from service sector SMEs that forms approximately 86.5 percent of the total SMEs establishments (Department of Statistics, 2006). Therefore, the significance of this sector of the SMEs must not be under estimated.

In terms of employment opportunities, the SME sector contributed approximately 56.4 percent of employment in Malaysia (SME Annual Report, 2007). The findings from the Census on Establishments and Enterprises 2005 revealed that there are 3 million workers employed in the SME sector, which forms 65.1 percent of the total country employment. Of this there are 2.2

million employment in the service sector SMEs as compared to the manufacturing sector (740,438) and agriculture sector (131,130) (Aris, 2007). Although the service sector SMEs has the highest employment, nevertheless data on its labour productivity was in contrasts to the manufacturing sector. Hence, it is not surprising that skill shortages and productivity of employees have been highlighted as one of on-going problems that hindered the progress of SMEs in Malaysia (SMIDEC, 2002; Wang, 2003; Ting, 2004; UPS, 2005; Saleh & Ndubisi, 2006).

As a result, this study is timely as it helped to highlight one of the important issues related to employees that are their job performance. The knowledge obtained can be used to understand better the problems of low labour productivity among the service sector employees of SMEs. Accordingly, the results of this study had shown that there were significant relationships between role ambiguity, competency and person job fit with the job performance of employees working in the service sector SMEs. This study also provided a good source for policy makers at either the organisational level or governmental level to look for ways to enhance the job performance of employees either through better human resources policy or through training and development programmes.

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## APPENDIX A

## Questionnaire

**Survey on the relationship between role ambiguity, competency and person-job fit with the job performance of employees in the service sector SMEs in Malaysia.**

Dear Sir/Madam,

My name is Sethela June. I am currently a doctoral candidate in the College of Business, Universiti Utara Malaysia. As part of the doctoral research, I am conducting a survey among the employees of small and medium sized firms in Malaysia. The main purpose of this study is to understand better, how work performance might be affected by factors such as role ambiguity, competency and person-job fit. This knowledge may assist in the generation of ideas on how the performance of service sector employees can be enhanced.

I would greatly appreciate your participation in this research by completing the enclosed questionnaire. It should require only about 10 to 15 minutes of your time, and your input is most critical to the success of this research. I respect your anonymity and assure you that all information will be held in the strictest confidence. Kindly complete the questionnaire and return it in an enclosed envelope.

Thank you in advance for your participation.

Yours sincerely,

Sethela June
Othman Yeop Abdullah Graduate School of Business
College of Business
Universiti Utara Malaysia.

Email : sethelajune@yahoo.com

**SECTION I**

This section asks your assessment on how you think you have performed in your present work. Please read the following statement and circle/ shade the number that most accurately reflects your opinion on each statement based on these scales:

Strongly Agree (7), Agree (6), Slightly Agree (5), Neither Agree nor Disagree (4), Slightly Disagree (3) Disagree (2), and Strongly Disagree (1).

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | I can adequately complete the assigned duties. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2. | I am able to fulfill responsibilities specified in my job description | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3. | I am able to perform tasks that are expected. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 4. | I can meet the formal performance standards of the job | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

**SECTION II**

This section asks your opinion about your job role. Please read the following statement and circle/ shade the number that most accurately reflects your opinion on each statement based on these scales:

Strongly Agree (7), Agree (6), Slightly Agree (5), Neither Agree nor Disagree (4), Slightly Disagree (3) Disagree (2), and Strongly Disagree (1).

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | I feel certain about how much authority I have. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2. | I have clear planned goals and objectives for my job. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3. | I know that I have divided my time properly. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 4. | I know what my responsibilities are. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 5. | I know exactly what is expected of me. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 6. | Explanations I receive are clear about what has to be done. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

**SECTION III**

This section asks how much each of the competencies characteristics assisted you in performing your job. [Should you need further clarification, please refer to "Note for section 3" at page 5 and 6]. Please read the following statement and circle/ shade the number that most accurately reflects your opinion on each statement based on these scales:

Very High (7), High (6) Slightly High (5), Neither High nor Low (4),Slightly Low (3), Low (2), and Very Low (1).

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | Teamwork and Cooperation | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2. | Flexibility | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3. | Relationship building | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 4. | Computer literacy | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 5. | Conceptual thinking | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 6. | Technical expertise | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 7. | Organisational awareness | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 8. | Concern for order, quality and accuracy | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 9. | Impact and influence on others | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 10. | Initiative | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 11. | Customer service orientation | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 12. | Developing Others | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 13. | Directiveness | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 14. | Team leadership | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 15. | Analytical thinking | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 16. | Self-control | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 17. | Organisational commitment | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 18. | Ability and willingness to learn | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 19. | Interpersonal understanding | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 20. | Self confidence | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 21. | Personal planning and organisational skills | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 22. | Written communication | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 23. | Information seeking | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 24. | Achievement orientation | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

**SECTION IV**

This section reviewed your perception of your job. Please read the following statement and circle/ shade the number that most accurately reflects your opinion on each statement based on these scales:

Strongly Agree (7), Agree (6), Slightly Agree (5), Neither Agree nor Disagree (4), Slightly Disagree (3) Disagree (2), and Strongly Disagree (1).

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | There is a good fit between what my job offers me and what I am looking for in a job. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2. | The attributes that I look for in a job are fulfilled very well by my present job. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3. | The job that I currently hold gives me just about everything that I want from a job. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 4. | The match is very good between the demands of my job and my personal skills. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 5. | My abilities and training are good fit with the requirement of my job. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 6. | My personal abilities and education provide a good match with the demands that my job places on me. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

**SECTION V**

This section asks for some **background information**. Please be assured that your responses to these questions are **confidentia**l. Please **tick [ / ]** in the relevant box for each question.

1. What is your gender?

| | | | |
|---|---|---|---|
| Male | | Female | |

2. What is your age group?

| | |
|---|---|
| Under 19 | |
| 19-30 | |
| 31-40 | |
| 41-50 | |
| Above 50 | |

3. What is your ethnic group?

| | |
|---|---|
| Malay | |
| Chinese | |
| Indian | |
| Bumiputera Sabah & Sarawak | |

Others: Please specify

_____

4. In which of the following sector does your organisation operate?

| | | | |
|---|---|---|---|
| Retailers | | Computer services and communication | |
| Wholesaler | | Restaurants | |
| Transport & Equipments | | Selected services * | |
| Professional services | | Financial intermediaries | |
| Consultancy services | | Real estate activities | |
| Education | | Health ** | |
| Hotel | | | |

**Note for question 4:**

* Selected services include rental services, advertising, research and development, business activities (labour recruitment, building cleaning, packaging services, and duplication services), recreation, cultural and sporting activities (motion picture projection, recreation clubs)

** Health includes hospital, medical, dental and veterinary services, herbalist, homeopathy and foot reflexology.

5. How many years of working experience do you have in total?

| | |
|---|---|
| Less than 1 year | |
| 1-5 years | |
| 6 – 10 years | |
| More than 10 years | |

6. How many years have you been working in the present organisation?

| | |
|---|---|
| Less than 1 year | |
| 1-5 years | |
| 6 – 10 years | |
| More than 10 years | |

7. What is your highest educational qualification?

| | |
|---|---|
| SRP/PMR or below | |
| SPM/MCE/O-LEVEL | |
| STPM/HSC/A-LEVEL | |
| Diploma Level | |
| First Degree | |
| Postgraduate | |

**Note for Section 3**

| |
|---|
| 1. Teamwork & Cooperation (foster group facilitation and management, conflict resolution, motivation of others, creating a good workplace climate ) |
| 2. Flexibility (adaptability, perceptual objectivity, staying objective, resilience, behaviour is contingent on the situation) |
| 3. Relationship building (networking, establish rapport, use of contacts, concern for stakeholders e.g. clients) |
| 4. Computer literacy (able to operate a number of packages and has information management awareness) |
| 5. Conceptual thinking (pattern recognition, insight, critical thinking, problem, can generate hypotheses) |
| 6. Technical expertise (job related technical knowledge and skills, depth and breath, acquires expertise, donates expertise) |
| 7. Organisational awareness (understands organisation, knows constraints, power and political astuteness, cultural knowledge) |
| 8. Concern for order, quality & accuracy (monitoring, concern for clarity, reduces uncertainty, keeping track of events and issues) |
| 9. Impact & influence on others (strategic influence, impression management, showmanship, persuasion, collaborative influence) |
| 10. Initiative (bias for action, decisiveness, strategic orientation, proactive, seizes opportunities, self-motivation, persistence) |
| 11. Customer service orientation (helping and service orientation, focus on client needs, actively solves client problems) |
| 12. Developing others (training, developing others, coaching, mentoring, providing support, positive regard) |
| 13. Directiveness (assertiveness, decisiveness, use of power, taking charge, firmness of standards, group control and discipline) |
| 14. Team leadership (being in charge, vision, concern for subordinates, builds a sense of group purpose) |
| 15. Analytical thinking (thinking for self, reasoning, practical intelligence, planning skills, problem analysing, systematic) |
| 16. Self-control (stamina, resistance to stress, staying calm, high Emotional Quotient, resists temptation, not impulsive, can calm others) |
| 17. Organisational commitment (align self and others to organisational needs, business mindedness, self-sacrifice) |
| 18. Ability and willingness to learn (desire and aptitude for learning, learning as a basis for action) |
| 19. Interpersonal understanding (empathy, listening, sensitivity to others, diagnostic understanding, awareness of others' feelings) |
| 20. Self-confidence (strong self-concept, internal locus of control, independence, positive ego strength, decisive, accepts responsibility) |
| 21. Personal planning and organisational skills |

| |
|---|
| 22. Written communication |
| 23. Information seeking (problem definition, diagnostic focus, looking deeper, contextual sensitivity) |
| 24. Achievement orientation (task accomplishment, seeks results, employs innovation, has competitiveness, seeks impact, aims for standards and efficiency) |

**THANK YOU FOR PARTICIPATING IN THIS SURVEY**

## APPENDIX B

## Borang kaji selidik

**Kajian terhadap hubungan di antara faktor peranan kerja yang tidak jelas, kompetensi (keupayaan) serta keserasian pekerja-kerja yang dilakukan, terhadap prestasi kerja di kalangan para pekerja di sektor perkhidmatan dalam perusahaan kecil dan sederhana (PKS) di Malaysia.**

Tuan/Puan

Nama saya ialah Sethela June dan merupakan seorang pelajar ijazah kedoktoran di Kolej Perniagaan, Universiti Utara Malaysia. Saya sedang menjalankan satu kajian di kalangan para pekerja yang berkhidmat di dalam sektor PKS. Adalah menjadi harapan, apabila kajian berjaya dilaksanakan, ia akan dapat membekalkan satu maklumat sama ada kemungkinan prestasi kerja di kalangan pekerja di pengaruhi oleh faktor-faktor seperti peranan kerja yang tidak jelas, kompetensi serta kesesuaian pekerja dengan kerja.

Di harap pihak tuan/puan dapat membantu saya dalam melaksanakan kaji selidik ini dengan mengisi borang kajian yang dilampirkan bersama surat ini. Untuk pengetahuan, maklum balas yang diberikan amatlah penting untuk kejayaan penyelidikan ini. Dalam pada masa yang sama, jaminan akan diberikan bahawa segala maklumat yang diberikan akan hanya digunakan untuk tujuan pendidikan serta penyelidikan dan tidak akan diedarkan kepada mana-mana pihak. Sila isikan borang dan masukkan ke dalam sampul surat tertutup.

Saya mengucapkan ribuan terima kasih di atas kesudian anda untuk mengambil bahagian di dalam kaji selidik ini.

Yang benar

……

Sethela June
Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia.
Emel:sethelajune@yahoo.com

**Bahagian I**

Bahagian ini memerlukan pandangan anda terhadap prestasi kerja anda. Sila baca dan buat pilihan yang paling sesuai dengan pendapat anda ke atas setiap penyataan yang tertera berdasarkan skala yang diberikan:

Amat bersetuju (7), Bersetuju (6), Agak bersetuju (5) Tidak bersetuju ataupun setuju (4) Agak tidak bersetuju (3) Tidak bersetuju (2) Amat tidak bersetuju (1)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | Saya mampu menghabiskan tugas yang diberikan | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2. | Saya mampu memenuhi tanggungjawab seperti yang tertera di dalam preskripsi tugas | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3. | Saya mampu melaksanakan tugas seperti yang diharapkan. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 4. | Saya mampu memenuhi takat prestasi yang ditetapkan untuk sesuatu tugas. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

**Bahagian II**

Bahagian ini memerlukan pandangan tentang peranan tugas anda. Sila baca dan buat pilihan yang paling sesuai dengan pendapat anda ke atas setiap penyataan yang tertera berdasarkan skala yang diberikan:

Amat bersetuju (7), Bersetuju (6), Agak bersetuju (5) Tidak bersetuju ataupun setuju (4) Agak tidak bersetuju (3) Tidak bersetuju (2) Amat tidak bersetuju (1)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | Saya berasa pasti tentang bidang kuasa yang saya miliki. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2. | Saya mempunyai matlamat and objektif yang jelas untuk tugas saya. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3. | Saya tahu yang saya telah membahagikan masa saya dengan sebaiknya. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 4. | Saya tahu apa sebenarnya tugas saya | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 5. | Saya tahu dengan jelas apa yang di harapkan ke atas saya. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 6. | Saya mendapat penjelasan yang jelas berkaitan dengan apa yang perlu dijalankan. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

**Bahagian III**

Bahagian ini menyoal tentang berapa banyak kriteria keupayaan seperti yang disenaraikan membantu anda di dalam melaksanakan tugas (jikalau perlu, anda boleh meneliti maklumat tambahan yang di berikan di dalam lampiran A di mukasurat 6 hingga 8). Sila baca dan buat pilihan yang paling sesuai dengan pendapat anda ke atas setiap penyataan yang tertera berdasarkan skala yang diberikan:

Amat Tinggi (7), Tinggi (6), Agak Tinggi (5) Tidak Tinggi ataupun Rendah (4) Agak Rendah (3) Rendah (2) Amat Rendah (1)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | Kerja berpasukan dan bekerjasama | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2. | Fleksibel | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3. | Pembangunan perhubungan | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 4. | Celik komputer | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 5. | Berfikian secara konseptual | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 6. | Kepakaran teknikal | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 7. | Kesedaran organisasi | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 8. | Memberikan perhatian tentang ketertiban, kualiti dan ketepatan | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 9. | Memberikan impak and berpegaruh terhadap orang lain | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 10. | Inisiatif | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 11. | Berorientasikan perkhidmatan pelanggan | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 12. | Pembangunan keupayaan terhadap orang lain | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 13. | Memberi arahan | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 14. | Pemimpin pasukan | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 15. | Berfikiran secara analitikal | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 16. | Daya kawalan diri | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 17. | Komitmen terhadap organisasi/syarikat | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 18. | Kemampuan dan kemahuan untuk belajar | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 19. | Mempunyai kefahaman antara satu sama lain | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 20. | Berkeyakinan diri | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 21. | Perancangan peribadi and kemahiran pengendalian | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 22. | Komunikasi bertulis | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 23. | Keupayaaan pencarian maklumat | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 24. | Berorientasikan kejayaan | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

**Bahagian IV**

Bahagian ini memerlukan pandangan tentang persepsi yang anda miliki terhadap kerja anda. Sila baca dan buat pilihan yang paling sesuai dengan pendapat anda ke atas setiap penyataan yang tertera berdasarkan skala yang diberikan:

Amat bersetuju (7), Bersetuju (6), Agak bersetuju (5) Tidak bersetuju ataupun setuju (4) Agak tidak bersetuju (3) Tidak bersetuju (2) Amat tidak bersetuju (1)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | Wujud padanan di antara kerja yang saya lakukan dengan apa yang saya harapkan daripada kerja yang saya lakukan. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2. | Ciri - ciri yang diharapkan di dalam sesuatu kerja, dipenuhi dengan baik oleh pekerjaan saya sekarang. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3. | Pekerjaan saya pada masa ini memberi segala yang saya inginkan dari pekerjaan | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 4. | Wujud padanan yang sangat baik di antara tuntutan pekerjaan saya dan kemahiran peribadi saya | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 5. | Wujud padanan yang baik di antara kemampuan saya serta latihan yang diterima dengan keperluan pekerjaan saya. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 6. | Wujud padanan yang baik di antara kemampuan peribadi beserta dengan pendidikan yang saya miliki dengan tuntutan pekerjaan saya. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

**Bahagian IV**

Bahagian ini berkaitan dengan maklumat latar belakang anda. Untuk makluman, segala maklumat yang diberikan dianggap sebagai sulit . Sila baca dan tanda [*/*] di bahagian yang sesuai.

1. Jantina:

| | | | |
|---|---|---|---|
| Lelaki | | Perempuan | |

2. Kumpulan umur anda:

| | |
|---|---|
| Bawah 19 tahun | |
| 19-30 tahun | |
| 31-40 tahun | |
| 41-50 tahun | |
| Atas 50 tahun | |

3. Keturunan:

| | |
|---|---|
| Melayu | |
| Cina | |
| India | |
| Bumiputera Sabah dan Sarawak | |
| Lain-lain:<br>Sila nyatakan: _____ | |

4. Sila pilih sektor perniagaan syarikat anda?

| | | | |
|---|---|---|---|
| Peruncitan | | Perkhidmatan komputer dan komunikasi | |
| Pemborongan | | Restoran | |
| Pengangkutan & Peralatan | | Pekhidmatan terpilih* | |
| Perkhidmatan profesional | | Perantaraan kewangan | |
| Perkhidmatan perundingan | | Hartanah | |
| Pendidikan | | Kesihatan* | |
| Perhotelan | | | |

***Nota:**
*1. Perkhidmatan terpilih termasuk perkhidmatan sewa, pengiklanan, penyelidikan dan pembangunan, kegiatan perniagaan (pengambilan tenaga kerja, pembersihan bangunan, perkhidmatan bungkusan dan perkhidmatan fotokopi), rekreasi, aktiviti budaya dan kesukana (seperti perfileman dan kelab rekreasi)*

*2. Kesihatan meliputi hospital, perubatan, perkhidmatan kesihatan gigi dan perubatan haiwan, pakar herba, homeopati dan refleksi kaki.*

5. Berapakah jumlah tahun pengalaman kerja yang anda miliki?

| | |
|---|---|
| Kurang daripada 1 tahun | |
| 1-5 tahun | |
| 6 – 10 tahun | |
| Lebih daripada 10 tahun | |

6. Berapa tahunkan anda telah berkerja di syarikat kini?

| | |
|---|---|
| Kurang daripada 1 tahun | |
| 1-5 tahun | |
| 6 – 10 tahun | |
| Lebih daripada 10 tahun | |

7. Apa kelayakan pendidikan tertinggi anda?

| | |
|---|---|
| SRP/PMR atau ke bawah | |
| SPM/MCE/O-LEVEL | |
| STPM/HSC/A-LEVEL | |
| Diploma | |
| Ijazah pertama | |
| Pasca-Siswazah | |

**Nota untuk bahagian III**

| |
|---|
| 1. Kerja berpasukan dan berkerjasama (Membantu pemupukan kerja brkumpulan berserta dengan pengurusan, mengatasi konflik, memberikan motivasi kepada orang lain, mewujudkan persekitaran kerja yang baik) |
| 2. Fleksibel (kemampuan menyesuaikan diri, objektiviti persepsi, sentiasa berobjektif, daya ketahanan diri, berperilaku mengikut kesesuaian keadaan) |
| 3. Pembangunan perhubungan (rangkaian perhubungan, menjalinkan hubungan, mengunakan rakan kenalan, keprihatinan terhadap kumpulan yang berkepentingan contohnya para pelanggan) |
| 4. Celik komputer (berkeupayaan menggunakan pelbagai jenis perisian komputer dan kesedaran tentang pegurusan maklumat) |
| 5. Berfikiran secara konseptual(polar pengenalian, berkemampuan befikir secara mendalam, berfikiran kritis, menyelesaikan masalah serta boleh menghasilkan hipotesis) |
| 6. Berkepakaran teknikal (mempunyai pengetahuan teknikal dan kemahiran yang berkaitan dengan kerja secara mendalam berserta dengan keupayaan mendapatkan kepakaran dan menyumbangkan kepakaran) |
| 7. Kesedaran tentang keadaan syarikat memahami keadaan syarikat dan juga kekangan yang wujud, kebijaksanaan dalam berpolitik, mengetahui budaya syarikat) |
| 8. Memberikan perhatian tentang ketertiban, kualiti serta ketepatan (pemantauan, keprihatinan untuk lebih jelas, mengurangkan ketidakpastian, sentiasa mengikuti perkembangan semasa) |
| 9. Memberikan impak dan berpengaruh terhadap orang lain (pengaruh strategik, memainkan peranan dengan baik, keupayan mendesak, mempegaruhi usaha sama ) |
| 10. Berinisiatif (bersedia untuk bertindak, berkemampuan mebuat keputusan, berorientasikan strategik, proaktif, merebut peluang, bermotivasi, ketekunan) |
| 11. Berorientasikan perkhidmatan pelanggan (berorientasikan perkhidmatan, sentiasa fokus di dalam memenuhi keprluan pelanggan, sentiasa membantu menyelesaikan masalah pelanggan) |
| 12. Membangunkan keupayaaan orang lain (memberikan latihan dan pembangunan, menjadi seorang jurulatih serta mentor dan sentiasa memberikan dorongan and komen yang positif) |

| |
|---|
| 13. Keupayaan memberikan arahan (tegas, mampu membuat keputusan, mengunakan kuasa yang ada, mampu memimpin, mengikuti ketetapan piawaian, mengawal kumpulan serta menjaga disiplin) |
| 14. Pemimpin pasukan (mengetuai, mempunyai visi, mengambil berat tentang pekerja bawahan, serta membina semangat berkumpulan) |
| 15. Berfikiran secara analitikal( mampu berfikir dengan sendiri, penalaran, kecerdasan praktikal, kemahiran perancangan, menganalisa masalah, bersistematik) |
| 16. Daya kawalan diri (berstamina, mampu menghadapi tekanan, tenang, kebijaksanaan emosi, mampu menahan keinginan yang tinggi, tidak tergesa-gesa dan boleh menenangkan orang lain) |
| 17. Komited terhadap syarikat (boleh menyelaraskan diri dan orang lain agar dapat memenuhi keperluan syarikat, mempunyai minda perniagaaan, sanggup berkorban) |
| 18. Kemampuan dan kemahuan untuk pembelajaran berterusan (mempunyai keinginan dan keupayaan untuk pembelajaran, pembelajaran menjadi asas kepada setiap tindakan) |
| 19. Memahami di antara satu sama lain (memahami, mendengar, peka terhadap orang lain, pemahaman diagnostik, kesedaran terhadap perasaan orang lain) |
| 20. Berkeyakinan diri (konsep diri yang kuat, lokus kawalan diri dalaman, berdikari, kekuatan ego yang positif, mampu membuat keputusan, menerima tanggungjawab) |
| 21. Mempunyai perancangan peribadi dan kemahiran pengendalian |
| 22. Berkeupayaan dalam komunikasi bertulis |
| 23. Keupayaan pencarian maklumat (penafsiran masalah, fokus dalam diagnostik, mendalami informasi, kepekaan kontekstual) |
| 24. Berorientasikan kejayaan (tugas penyelesaian, sentiasa mendapatkan hasil, menggunakan inovasi, memiliki daya saing, memberikan impak, menyasarkan pencapaian piawaian berserta dengan kecekapan) |

**Terima kasih di atas kesudian anda untuk mengambil bahagian di dalam kaji selidik ini**

# APPENDIX C

## SPSS OUTPUT

## T-Test (independent sample t-test)

**Group Statistics**

| | wave | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Job performance | first wave | 180 | 5.6708 | .87783 | .06543 |
| | second wave | 120 | 5.6125 | .67117 | .06127 |
| Roleambiguity_rev | first wave | 180 | 2.5648 | .90731 | .06763 |
| | second wave | 120 | 2.4481 | .70986 | .06480 |
| Competency | first wave | 180 | 5.5028 | .87501 | .06522 |
| | second wave | 120 | 5.3771 | .95439 | .08712 |
| Person-job fit | first wave | 180 | 5.1111 | .97167 | .07242 |
| | second wave | 120 | 5.0361 | .75784 | .06918 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| Job performance | Equal variances assumed | 8.877 | .003 | .617 | 298 | .537 | .05833 | .09448 | -.12761 | .24427 |
| | Equal variances not assumed | | | .651 | 292.385 | .516 | .05833 | .08964 | -.11808 | .23475 |
| Roleambiguity_rev | Equal variances assumed | 8.641 | .004 | 1.188 | 298 | .236 | .11676 | .09830 | -.07669 | .31021 |
| | Equal variances not assumed | | | 1.247 | 290.379 | .214 | .11676 | .09366 | -.06758 | .30110 |
| Competency | Equal variances assumed | 3.900 | .049 | 1.175 | 298 | .241 | .12569 | .10695 | -.08479 | .33618 |
| | Equal variances not assumed | | | 1.155 | 239.700 | .249 | .12569 | .10883 | -.08869 | .34008 |
| Person-job fit | Equal variances assumed | 5.518 | .019 | .713 | 298 | .476 | .07500 | .10518 | -.13198 | .28198 |
| | Equal variances not assumed | | | .749 | 290.669 | .455 | .07500 | .10016 | -.12212 | .27212 |

## Frequencies –check for missing data

**Statistics**

| | | B1gender | B2 age | B3 ethnic | B4 business sector | B5 working experience in total |
|---|---|---|---|---|---|---|
| N | Valid | 295 | 295 | 295 | 295 | 295 |
| | Missing | 0 | 0 | 0 | 0 | 0 |

**Statistics**

| | | B6 tenure in present organization | B7 educational qualification |
|---|---|---|---|
| N | Valid | 295 | 295 |
| | Missing | 0 | 0 |

**Statistics**

| | | JP1 complete assigned duties | JP2 fulfill responsibilties according to JD | JP3 able to perform as expected | JP4 meet the formal performance standards |
|---|---|---|---|---|---|
| N | Valid | 295 | 295 | 295 | 295 |
| | Missing | 0 | 0 | 0 | 0 |
| Mean | | 5.69 | 5.61 | 5.66 | 5.67 |
| Std. Deviation | | .950 | .911 | .912 | .920 |

**Statistics**

| | | RA1certain about job authority | RA2 clear goals and objectives for job | RA3 have divided time properly | RA4 known about responsibilities |
|---|---|---|---|---|---|
| N | Valid | 295 | 295 | 294 | 295 |
| | Missing | 0 | 0 | 1 | 0 |
| Mean | | 5.42 | 5.41 | 5.37 | 5.77 |
| Std. Deviation | | 1.000 | 1.029 | 1.020 | 1.033 |

**Statistics**

| | | RA5 known about what is expected | RA6 explanation given are clear | C1 teamwork & cooperation | C2 flexibility |
|---|---|---|---|---|---|
| N | Valid | 295 | 295 | 295 | 295 |
| | Missing | 0 | 0 | 0 | 0 |
| Mean | | 5.57 | 5.46 | 5.80 | 5.57 |
| Std. Deviation | | 1.050 | 1.029 | 1.090 | 1.146 |

**Statistics**

| | | C3 relationship building | C4 computer literacy | C5 conceptual thinking | C6 technical expertise |
|---|---|---|---|---|---|
| N | Valid | 295 | 295 | 295 | 295 |
| | Missing | 0 | 0 | 0 | 0 |
| Mean | | 5.58 | 5.43 | 5.45 | 5.30 |
| Std. Deviation | | 1.175 | 1.291 | 1.162 | 1.226 |

**Statistics**

| | | C7 organizational awareness | C8 order, quality & accuracy | C9 impact & influence on others | C10 initiative |
|---|---|---|---|---|---|
| N | Valid | 295 | 295 | 295 | 295 |
| | Missing | 0 | 0 | 0 | 0 |
| Mean | | 5.23 | 5.62 | 5.22 | 5.51 |
| Std. Deviation | | 1.257 | 1.264 | 1.232 | 1.192 |

**Statistics**

| | | C11 customer service orientation | C12 developing others | C13 directiveness | C14 team leadership |
|---|---|---|---|---|---|
| N | Valid | 295 | 295 | 295 | 295 |
| | Missing | 0 | 0 | 0 | 0 |
| Mean | | 5.45 | 5.09 | 5.29 | 5.38 |
| Std. Deviation | | 1.241 | 1.257 | 1.176 | 1.367 |

**Statistics**

| | | C15 analytical thinking | C16 self control | C17 organization commitment | C18 ability & willingness to learn |
|---|---|---|---|---|---|
| N | Valid | 295 | 295 | 295 | 295 |
| | Missing | 0 | 0 | 0 | 0 |
| Mean | | 5.42 | 5.56 | 5.50 | 5.77 |
| Std. Deviation | | 1.226 | 1.144 | 1.267 | 1.131 |

**Statistics**

| | | C19 interpersonal understanding | C20 self confidence | C21 personal planning & org skills | C22 written communication |
|---|---|---|---|---|---|
| N | Valid | 295 | 295 | 295 | 295 |
| | Missing | 0 | 0 | 0 | 0 |
| Mean | | 5.59 | 5.74 | 5.54 | 5.31 |
| Std. Deviation | | 1.145 | 1.112 | 1.148 | 1.268 |

**Statistics**

| | | C23 information seeking | C24 achievement orientation | PJ1 goof fit bet job and what being looked for | PJ2 attributes looked for fulfilled by present job |
|---|---|---|---|---|---|
| N | Valid | 295 | 295 | 295 | 295 |
| | Missing | 0 | 0 | 0 | 0 |
| Mean | | 5.42 | 5.52 | 5.29 | 5.12 |
| Std. Deviation | | 1.223 | 1.145 | .945 | 1.084 |

**Statistics**

| | | PJ3 job gives everything that is expected | PJ4good match between job demand and skills | PJ5 abilities & training fit with job requirement | PJ6 personal abilities & edu match with job demand |
|---|---|---|---|---|---|
| N | Valid | 295 | 295 | 295 | 295 |
| | Missing | 0 | 0 | 0 | 0 |
| Mean | | 4.95 | 5.06 | 5.09 | 5.24 |
| Std. Deviation | | 1.044 | 1.077 | 1.043 | 1.050 |

## Frequency Table

**JP1 complete assigned duties**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | slightly disagree | 3 | 1.0 | 1.0 | 1.0 |
| | neither agree nor disagree | 26 | 8.8 | 8.8 | 9.8 |
| | slightly agree | 97 | 32.9 | 32.9 | 42.7 |
| | agree | 103 | 34.9 | 34.9 | 77.6 |
| | strongly agree | 66 | 22.4 | 22.4 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**JP2 fulfil responsibilities according to JD**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | slightly disagree | 2 | .7 | .7 | .7 |
| | neither agree nor disagree | 32 | 10.8 | 10.8 | 11.5 |
| | slightly agree | 93 | 31.5 | 31.5 | 43.1 |
| | agree | 119 | 40.3 | 40.3 | 83.4 |
| | strongly agree | 49 | 16.6 | 16.6 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**JP3 able to perform as expected**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 1 | .3 | .3 | .3 |
| | slightly disagree | 2 | .7 | .7 | 1.0 |
| | neither agree nor disagree | 23 | 7.8 | 7.8 | 8.8 |
| | slightly agree | 94 | 31.9 | 31.9 | 40.7 |
| | agree | 125 | 42.4 | 42.4 | 83.1 |
| | strongly agree | 50 | 16.9 | 16.9 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**JP4 meet the formal performance standards**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | slightly disagree | 2 | .7 | .7 | .7 |
| | neither agree nor disagree | 32 | 10.8 | 10.8 | 11.5 |
| | slightly agree | 81 | 27.5 | 27.5 | 39.0 |
| | agree | 126 | 42.7 | 42.7 | 81.7 |
| | strongly agree | 54 | 18.3 | 18.3 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**RA1certain about job authority**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 38 | 12.9 | 12.9 | 12.9 |
| | disagree | 109 | 36.9 | 36.9 | 49.8 |
| | slightly disagree | 96 | 32.5 | 32.5 | 82.4 |
| | neither agree nor disagree | 43 | 14.6 | 14.6 | 96.9 |
| | slightly agree | 8 | 2.7 | 2.7 | 99.7 |
| | agree | 1 | .3 | .3 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**RA2 clear goals and objectives for job**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 37 | 12.5 | 12.5 | 12.5 |
| | disagree | 115 | 39.0 | 39.0 | 51.5 |
| | slightly disagree | 88 | 29.8 | 29.8 | 81.4 |
| | neither agree nor disagree | 44 | 14.9 | 14.9 | 96.3 |
| | slightly agree | 9 | 3.1 | 3.1 | 99.3 |
| | agree | 2 | .7 | .7 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**RA3 have divided time properly**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 38 | 12.9 | 12.9 | 12.9 |
| | disagree | 100 | 33.9 | 34.0 | 46.9 |
| | slightly disagree | 102 | 34.6 | 34.7 | 81.6 |
| | neither agree nor disagree | 44 | 14.9 | 15.0 | 96.6 |
| | slightly agree | 8 | 2.7 | 2.7 | 99.3 |
| | agree | 2 | .7 | .7 | 100.0 |
| | Total | 294 | 99.7 | 100.0 | |
| Missing | System | 1 | .3 | | |
| Total | | 295 | 100.0 | | |

**RA4 known about responsibilities**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 82 | 27.8 | 27.8 | 27.8 |
| | disagree | 105 | 35.6 | 35.6 | 63.4 |
| | slightly disagree | 74 | 25.1 | 25.1 | 88.5 |
| | neither agree nor disagree | 28 | 9.5 | 9.5 | 98.0 |
| | slightly agree | 5 | 1.7 | 1.7 | 99.7 |
| | agree | 1 | .3 | .3 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**RA5 known about what is expected**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 61 | 20.7 | 20.7 | 20.7 |
| | disagree | 101 | 34.2 | 34.2 | 54.9 |
| | slightly disagree | 86 | 29.2 | 29.2 | 84.1 |
| | neither agree nor disagree | 43 | 14.6 | 14.6 | 98.6 |
| | slightly agree | 2 | .7 | .7 | 99.3 |
| | agree | 1 | .3 | .3 | 99.7 |
| | strongly agree | 1 | .3 | .3 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**RA6 explanation given are clear**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 46 | 15.6 | 15.6 | 15.6 |
| | disagree | 106 | 35.9 | 35.9 | 51.5 |
| | slightly disagree | 90 | 30.5 | 30.5 | 82.0 |
| | neither agree nor disagree | 46 | 15.6 | 15.6 | 97.6 |
| | slightly agree | 5 | 1.7 | 1.7 | 99.3 |
| | agree | 2 | .7 | .7 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C1 teamwork & cooperation**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 2 | .7 | .7 | .7 |
| | disagree | 1 | .3 | .3 | 1.0 |
| | slightly disagree | 2 | .7 | .7 | 1.7 |
| | neither agree nor disagree | 27 | 9.2 | 9.2 | 10.8 |
| | slightly agree | 77 | 26.1 | 26.1 | 36.9 |
| | agree | 94 | 31.9 | 31.9 | 68.8 |
| | strongly agree | 92 | 31.2 | 31.2 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C2 flexibility**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | slightly disagree | 15 | 5.1 | 5.1 | 5.1 |
| | neither agree nor disagree | 44 | 14.9 | 14.9 | 20.0 |
| | slightly agree | 62 | 21.0 | 21.0 | 41.0 |
| | agree | 106 | 35.9 | 35.9 | 76.9 |
| | strongly agree | 68 | 23.1 | 23.1 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C3 relationship building**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 6 | 2.0 | 2.0 | 2.0 |
| | slightly disagree | 6 | 2.0 | 2.0 | 4.1 |
| | neither agree nor disagree | 39 | 13.2 | 13.2 | 17.3 |
| | slightly agree | 77 | 26.1 | 26.1 | 43.4 |
| | agree | 93 | 31.5 | 31.5 | 74.9 |
| | strongly agree | 74 | 25.1 | 25.1 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C4 computer literacy**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 4 | 1.4 | 1.4 | 1.4 |
| | slightly disagree | 22 | 7.5 | 7.5 | 8.8 |
| | neither agree nor disagree | 46 | 15.6 | 15.6 | 24.4 |
| | slightly agree | 67 | 22.7 | 22.7 | 47.1 |
| | agree | 83 | 28.1 | 28.1 | 75.3 |
| | strongly agree | 73 | 24.7 | 24.7 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C5 conceptual thinking**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | slightly disagree | 24 | 8.1 | 8.1 | 8.1 |
| | neither agree nor disagree | 37 | 12.5 | 12.5 | 20.7 |
| | slightly agree | 70 | 23.7 | 23.7 | 44.4 |
| | agree | 111 | 37.6 | 37.6 | 82.0 |
| | strongly agree | 53 | 18.0 | 18.0 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C6 technical expertise**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 1 | .3 | .3 | .3 |
| | disagree | 2 | .7 | .7 | 1.0 |
| | slightly disagree | 18 | 6.1 | 6.1 | 7.1 |
| | neither agree nor disagree | 58 | 19.7 | 19.7 | 26.8 |
| | slightly agree | 80 | 27.1 | 27.1 | 53.9 |
| | agree | 80 | 27.1 | 27.1 | 81.0 |
| | strongly agree | 56 | 19.0 | 19.0 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C7 organizational awareness**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 4 | 1.4 | 1.4 | 1.4 |
| | disagree | 3 | 1.0 | 1.0 | 2.4 |
| | slightly disagree | 20 | 6.8 | 6.8 | 9.2 |
| | neither agree nor disagree | 43 | 14.6 | 14.6 | 23.7 |
| | slightly agree | 94 | 31.9 | 31.9 | 55.6 |
| | agree | 86 | 29.2 | 29.2 | 84.7 |
| | strongly agree | 45 | 15.3 | 15.3 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C8 order, quality & accuracy**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 4 | 1.4 | 1.4 | 1.4 |
| | slightly disagree | 20 | 6.8 | 6.8 | 8.1 |
| | neither agree nor disagree | 30 | 10.2 | 10.2 | 18.3 |
| | slightly agree | 62 | 21.0 | 21.0 | 39.3 |
| | agree | 93 | 31.5 | 31.5 | 70.8 |
| | strongly agree | 86 | 29.2 | 29.2 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C9 impact & influence on others**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 3 | 1.0 | 1.0 | 1.0 |
| | disagree | 1 | .3 | .3 | 1.4 |
| | slightly disagree | 27 | 9.2 | 9.2 | 10.5 |
| | neither agree nor disagree | 37 | 12.5 | 12.5 | 23.1 |
| | slightly agree | 101 | 34.2 | 34.2 | 57.3 |
| | agree | 82 | 27.8 | 27.8 | 85.1 |
| | strongly agree | 44 | 14.9 | 14.9 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C10 initiative**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | slightly disagree | 15 | 5.1 | 5.1 | 5.1 |
| | neither agree nor disagree | 52 | 17.6 | 17.6 | 22.7 |
| | slightly agree | 70 | 23.7 | 23.7 | 46.4 |
| | agree | 83 | 28.1 | 28.1 | 74.6 |
| | strongly agree | 75 | 25.4 | 25.4 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C11 customer service orientation**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 1 | .3 | .3 | .3 |
| | disagree | 4 | 1.4 | 1.4 | 1.7 |
| | slightly disagree | 14 | 4.7 | 4.7 | 6.4 |
| | neither agree nor disagree | 45 | 15.3 | 15.3 | 21.7 |
| | slightly agree | 77 | 26.1 | 26.1 | 47.8 |
| | agree | 85 | 28.8 | 28.8 | 76.6 |
| | strongly agree | 69 | 23.4 | 23.4 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C12 developing others**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 4 | 1.4 | 1.4 | 1.4 |
| | disagree | 1 | .3 | .3 | 1.7 |
| | slightly disagree | 28 | 9.5 | 9.5 | 11.2 |
| | neither agree nor disagree | 54 | 18.3 | 18.3 | 29.5 |
| | slightly agree | 88 | 29.8 | 29.8 | 59.3 |
| | agree | 84 | 28.5 | 28.5 | 87.8 |
| | strongly agree | 36 | 12.2 | 12.2 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C13 directiveness**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | slightly disagree | 27 | 9.2 | 9.2 | 9.2 |
| | neither agree nor disagree | 47 | 15.9 | 15.9 | 25.1 |
| | slightly agree | 79 | 26.8 | 26.8 | 51.9 |
| | agree | 97 | 32.9 | 32.9 | 84.7 |
| | strongly agree | 45 | 15.3 | 15.3 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C14 team leadership**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 9 | 3.1 | 3.1 | 3.1 |
| | slightly disagree | 18 | 6.1 | 6.1 | 9.2 |
| | neither agree nor disagree | 52 | 17.6 | 17.6 | 26.8 |
| | slightly agree | 68 | 23.1 | 23.1 | 49.8 |
| | agree | 68 | 23.1 | 23.1 | 72.9 |
| | strongly agree | 80 | 27.1 | 27.1 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C15 analytical thinking**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 2 | .7 | .7 | .7 |
| | slightly disagree | 20 | 6.8 | 6.8 | 7.5 |
| | neither agree nor disagree | 47 | 15.9 | 15.9 | 23.4 |
| | slightly agree | 76 | 25.8 | 25.8 | 49.2 |
| | agree | 84 | 28.5 | 28.5 | 77.6 |
| | strongly agree | 66 | 22.4 | 22.4 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C16 self control**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 3 | 1.0 | 1.0 | 1.0 |
| | slightly disagree | 12 | 4.1 | 4.1 | 5.1 |
| | neither agree nor disagree | 35 | 11.9 | 11.9 | 16.9 |
| | slightly agree | 78 | 26.4 | 26.4 | 43.4 |
| | agree | 100 | 33.9 | 33.9 | 77.3 |
| | strongly agree | 67 | 22.7 | 22.7 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C17 organization commitment**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 4 | 1.4 | 1.4 | 1.4 |
| | slightly disagree | 14 | 4.7 | 4.7 | 6.1 |
| | neither agree nor disagree | 52 | 17.6 | 17.6 | 23.7 |
| | slightly agree | 67 | 22.7 | 22.7 | 46.4 |
| | agree | 77 | 26.1 | 26.1 | 72.5 |
| | strongly agree | 81 | 27.5 | 27.5 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C18 ability & willingness to learn**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 1 | .3 | .3 | .3 |
| | slightly disagree | 7 | 2.4 | 2.4 | 2.7 |
| | neither agree nor disagree | 34 | 11.5 | 11.5 | 14.2 |
| | slightly agree | 70 | 23.7 | 23.7 | 38.0 |
| | agree | 86 | 29.2 | 29.2 | 67.1 |
| | strongly agree | 97 | 32.9 | 32.9 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C19 interpersonal understanding**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 3 | 1.0 | 1.0 | 1.0 |
| | slightly disagree | 4 | 1.4 | 1.4 | 2.4 |
| | neither agree nor disagree | 47 | 15.9 | 15.9 | 18.3 |
| | slightly agree | 69 | 23.4 | 23.4 | 41.7 |
| | agree | 104 | 35.3 | 35.3 | 76.9 |
| | strongly agree | 68 | 23.1 | 23.1 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C20 self confidence**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | slightly disagree | 8 | 2.7 | 2.7 | 2.7 |
| | neither agree nor disagree | 39 | 13.2 | 13.2 | 15.9 |
| | slightly agree | 66 | 22.4 | 22.4 | 38.3 |
| | agree | 92 | 31.2 | 31.2 | 69.5 |
| | strongly agree | 90 | 30.5 | 30.5 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C21 personal planning & org skills**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | slightly disagree | 19 | 6.4 | 6.4 | 6.4 |
| | neither agree nor disagree | 38 | 12.9 | 12.9 | 19.3 |
| | slightly agree | 64 | 21.7 | 21.7 | 41.0 |
| | agree | 112 | 38.0 | 38.0 | 79.0 |
| | strongly agree | 62 | 21.0 | 21.0 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C22 written communication**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 1 | .3 | .3 | .3 |
| | slightly disagree | 33 | 11.2 | 11.2 | 11.5 |
| | neither agree nor disagree | 42 | 14.2 | 14.2 | 25.8 |
| | slightly agree | 76 | 25.8 | 25.8 | 51.5 |
| | agree | 85 | 28.8 | 28.8 | 80.3 |
| | strongly agree | 58 | 19.7 | 19.7 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C23 information seeking**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 6 | 2.0 | 2.0 | 2.0 |
| | slightly disagree | 16 | 5.4 | 5.4 | 7.5 |
| | neither agree nor disagree | 41 | 13.9 | 13.9 | 21.4 |
| | slightly agree | 75 | 25.4 | 25.4 | 46.8 |
| | agree | 98 | 33.2 | 33.2 | 80.0 |
| | strongly agree | 59 | 20.0 | 20.0 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**C24 achievement orientation**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 3 | 1.0 | 1.0 | 1.0 |
| | slightly disagree | 9 | 3.1 | 3.1 | 4.1 |
| | neither agree nor disagree | 44 | 14.9 | 14.9 | 19.0 |
| | slightly agree | 81 | 27.5 | 27.5 | 46.4 |
| | agree | 91 | 30.8 | 30.8 | 77.3 |
| | strongly agree | 67 | 22.7 | 22.7 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**PJ1 goof fit bet job and what being looked for**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 2 | .7 | .7 | .7 |
| | slightly disagree | 10 | 3.4 | 3.4 | 4.1 |
| | neither agree nor disagree | 37 | 12.5 | 12.5 | 16.6 |
| | slightly agree | 120 | 40.7 | 40.7 | 57.3 |
| | agree | 104 | 35.3 | 35.3 | 92.5 |
| | strongly agree | 22 | 7.5 | 7.5 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**PJ2 attributes looked for fulfilled by present job**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 1 | .3 | .3 | .3 |
| | disagree | 5 | 1.7 | 1.7 | 2.0 |
| | slightly disagree | 14 | 4.7 | 4.7 | 6.8 |
| | neither agree nor disagree | 53 | 18.0 | 18.0 | 24.7 |
| | slightly agree | 108 | 36.6 | 36.6 | 61.4 |
| | agree | 92 | 31.2 | 31.2 | 92.5 |
| | strongly agree | 22 | 7.5 | 7.5 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**PJ3 job gives everything that is expected**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly disagree | 1 | .3 | .3 | .3 |
| | disagree | 3 | 1.0 | 1.0 | 1.4 |
| | slightly disagree | 21 | 7.1 | 7.1 | 8.5 |
| | neither agree nor disagree | 60 | 20.3 | 20.3 | 28.8 |
| | slightly agree | 127 | 43.1 | 43.1 | 71.9 |
| | agree | 66 | 22.4 | 22.4 | 94.2 |
| | strongly agree | 17 | 5.8 | 5.8 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**PJ4 good match between job demand and skills**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 5 | 1.7 | 1.7 | 1.7 |
| | slightly disagree | 12 | 4.1 | 4.1 | 5.8 |
| | neither agree nor disagree | 70 | 23.7 | 23.7 | 29.5 |
| | slightly agree | 107 | 36.3 | 36.3 | 65.8 |
| | agree | 75 | 25.4 | 25.4 | 91.2 |
| | strongly agree | 26 | 8.8 | 8.8 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**PJ5 abilities & training fit with job requirement**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 4 | 1.4 | 1.4 | 1.4 |
| | slightly disagree | 11 | 3.7 | 3.7 | 5.1 |
| | neither agree nor disagree | 72 | 24.4 | 24.4 | 29.5 |
| | slightly agree | 95 | 32.2 | 32.2 | 61.7 |
| | agree | 94 | 31.9 | 31.9 | 93.6 |
| | strongly agree | 19 | 6.4 | 6.4 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**PJ6 personal abilities & edu match with job demand**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | disagree | 1 | .3 | .3 | .3 |
| | slightly disagree | 11 | 3.7 | 3.7 | 4.1 |
| | neither agree nor disagree | 64 | 21.7 | 21.7 | 25.8 |
| | slightly agree | 90 | 30.5 | 30.5 | 56.3 |
| | agree | 97 | 32.9 | 32.9 | 89.2 |
| | strongly agree | 32 | 10.8 | 10.8 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**B1gender**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | male | 137 | 46.4 | 46.4 | 46.4 |
| | female | 158 | 53.6 | 53.6 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**B2 age**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | under 19 | 15 | 5.1 | 5.1 | 5.1 |
| | 19 to 30 | 145 | 49.2 | 49.2 | 54.2 |
| | 31 to 40 | 90 | 30.5 | 30.5 | 84.7 |
| | 41 to 50 | 33 | 11.2 | 11.2 | 95.9 |
| | above 50 | 12 | 4.1 | 4.1 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**B3 ethnic**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | malay | 60 | 20.3 | 20.3 | 20.3 |
| | chinese | 171 | 58.0 | 58.0 | 78.3 |
| | indian | 44 | 14.9 | 14.9 | 93.2 |
| | Bumiputera sabah or sarawak | 6 | 2.0 | 2.0 | 95.3 |
| | other race | 14 | 4.7 | 4.7 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**B4 business sector**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | retailers | 28 | 9.5 | 9.5 | 9.5 |
| | wholesaler | 12 | 4.1 | 4.1 | 13.6 |
| | transport & equipment | 12 | 4.1 | 4.1 | 17.6 |
| | professional service | 42 | 14.2 | 14.2 | 31.9 |
| | consultancy services | 17 | 5.8 | 5.8 | 37.6 |
| | education | 44 | 14.9 | 14.9 | 52.5 |
| | hotel | 11 | 3.7 | 3.7 | 56.3 |
| | computer services and communication | 31 | 10.5 | 10.5 | 66.8 |
| | restaurants | 43 | 14.6 | 14.6 | 81.4 |
| | selected services | 21 | 7.1 | 7.1 | 88.5 |
| | financial services | 11 | 3.7 | 3.7 | 92.2 |
| | real estate activities | 11 | 3.7 | 3.7 | 95.9 |
| | health | 12 | 4.1 | 4.1 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**B5 working experience in total**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | < 1 year | 33 | 11.2 | 11.2 | 11.2 |
| | 1 to 5 years | 120 | 40.7 | 40.7 | 51.9 |
| | 6 to 10 years | 70 | 23.7 | 23.7 | 75.6 |
| | > 10 years | 72 | 24.4 | 24.4 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**B6 tenure in present organization**

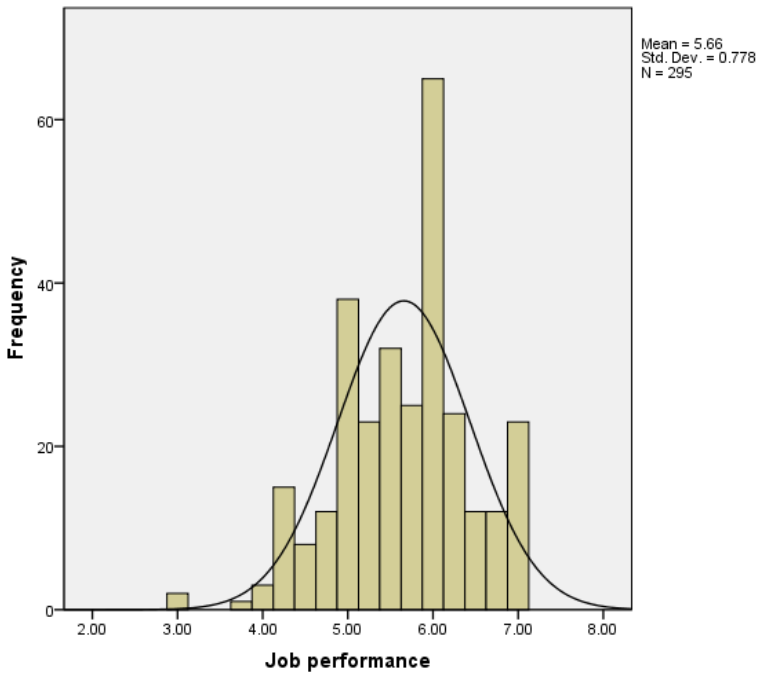
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | < 1 year | 77 | 26.1 | 26.1 | 26.1 |
| | 1 to 5 years | 157 | 53.2 | 53.2 | 79.3 |
| | 6 to 10 years | 31 | 10.5 | 10.5 | 89.8 |
| | >10 years | 30 | 10.2 | 10.2 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

**B7 educational qualification**

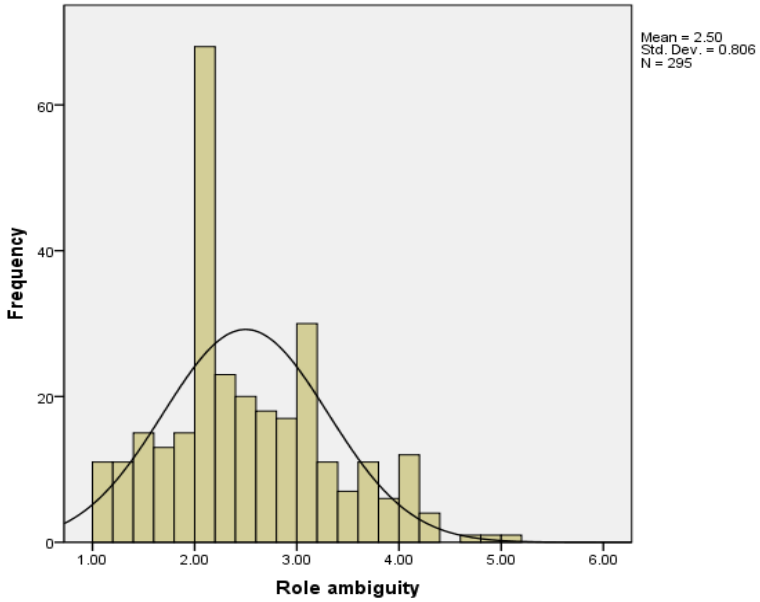
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | SRP/PMR or below | 35 | 11.9 | 11.9 | 11.9 |
| | SPM/MCE/O-Level | 52 | 17.6 | 17.6 | 29.5 |
| | STPM/HSC/A-Level | 25 | 8.5 | 8.5 | 38.0 |
| | Diploma Level | 64 | 21.7 | 21.7 | 59.7 |
| | First Degree | 90 | 30.5 | 30.5 | 90.2 |
| | Postgraduate | 29 | 9.8 | 9.8 | 100.0 |
| | Total | 295 | 100.0 | 100.0 | |

## Normality test – graphical method

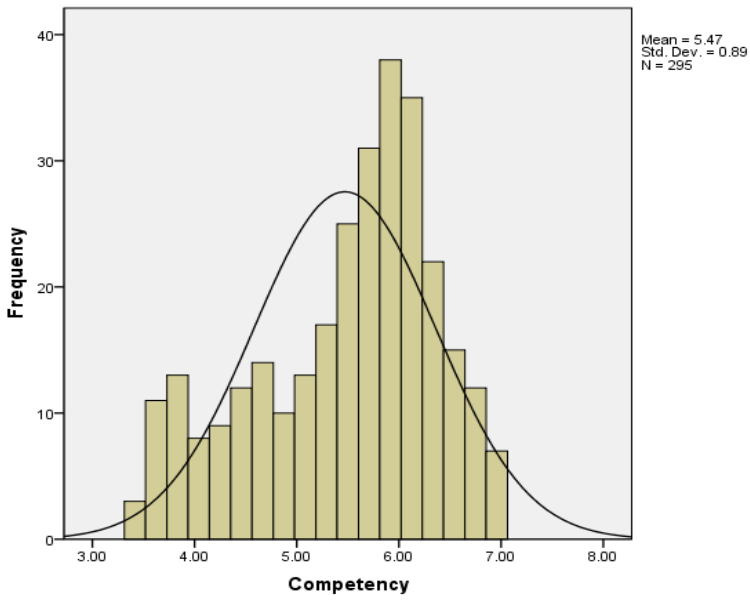
## Histogram for job performance



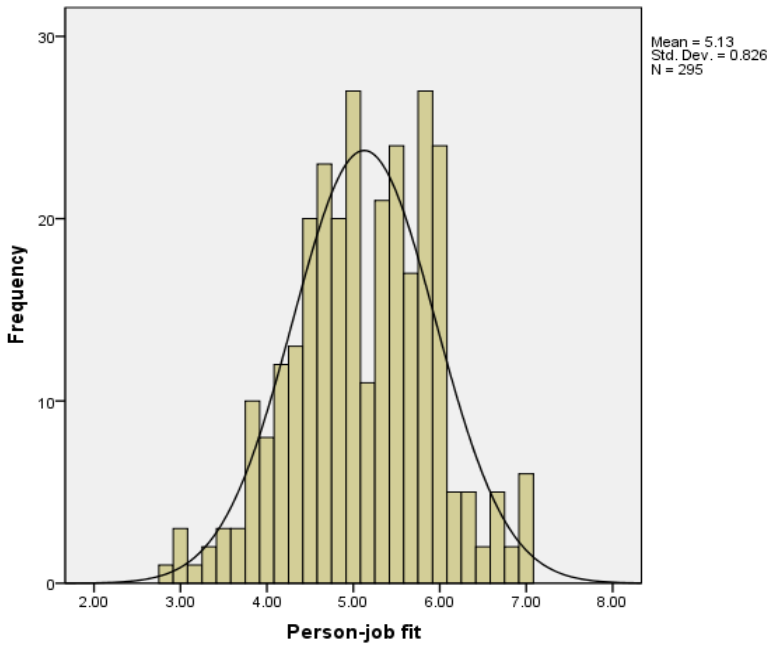
## Histogram for role ambiguity




## Histogram for competency



## Histogram for person-job fit




## Factor Analysis –job performance

**KMO and Bartlett's Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .814 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 562.505 |
| | df | 6 |
| | Sig. | .000 |

**Communalities**

| | Initial | Extraction |
|---|---|---|
| JP1 complete assigned duties | 1.000 | .753 |
| JP2 fulfill responsibilties according to JD | 1.000 | .772 |
| JP3 able to perform as expected | 1.000 | .727 |
| JP4 meet the formal performance standards | 1.000 | .593 |

Extraction Method: Principal Component Analysis.

**Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings |
|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total |
| 1 | 2.845 | 71.128 | 71.128 | 2.845 |
| 2 | .521 | 13.025 | 84.154 | |
| 3 | .365 | 9.117 | 93.271 | |
| 4 | .269 | 6.729 | 100.000 | |

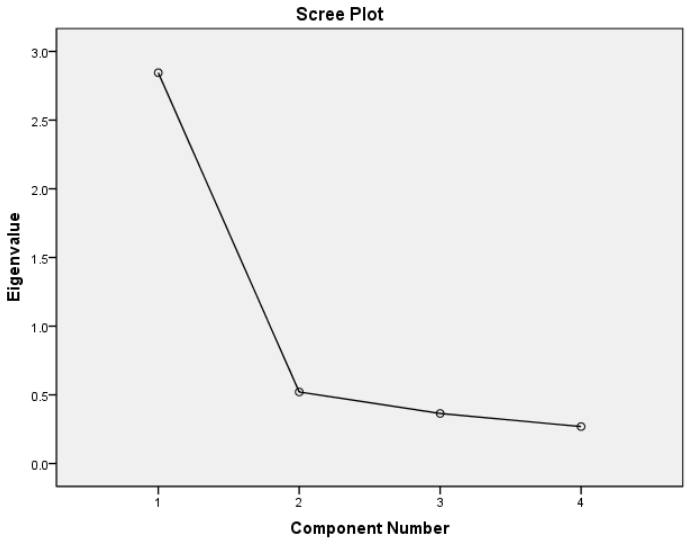
Extraction Method: Principal Component Analysis.

**Total Variance Explained**

| Component | Extraction Sums of Squared Loadings | |
|---|---|---|
| | % of Variance | Cumulative % |
| 1 | 71.128 | 71.128 |
| 2 | | |
| 3 | | |
| 4 | | |

Extraction Method: Principal Component Analysis.

## Scree plot – job performance




**Component Matrix[a]**

| | Component |
|---|---|
| | 1 |
| JP1 complete assigned duties | .868 |
| JP2 fulfill responsibilties according to JD | .878 |
| JP3 able to perform as expected | .853 |
| JP4 meet the formal performance standards | .770 |

a. 1 component extracted

## Factor Analysis –role ambiguity

**KMO and Bartlett's Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .898 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 791.708 |
| | df | 15 |
| | Sig. | .000 |

**Communalities**

| | Initial | Extraction |
|---|---|---|
| RA1certain about job authority | 1.000 | .453 |
| RA2 clear goals and objectives for job | 1.000 | .700 |
| RA3 have divided time properly | 1.000 | .603 |
| RA4 known about responsibilities | 1.000 | .689 |
| RA5 known about what is expected | 1.000 | .674 |
| RA6 explanation given are clear | 1.000 | .592 |

Extraction Method: Principal Component Analysis.

**Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings |
|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total |
| 1 | 3.711 | 61.844 | 61.844 | 3.711 |
| 2 | .656 | 10.932 | 72.776 | |
| 3 | .489 | 8.153 | 80.929 | |
| 4 | .429 | 7.143 | 88.071 | |
| 5 | .364 | 6.073 | 94.145 | |
| 6 | .351 | 5.855 | 100.000 | |

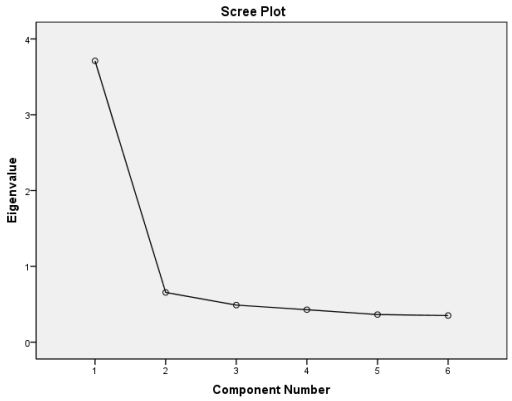
Extraction Method: Principal Component Analysis.

**Total Variance Explained**

| Component | Extraction Sums of Squared Loadings | |
|---|---|---|
| | % of Variance | Cumulative % |
| 1 | 61.844 | 61.844 |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |

Extraction Method: Principal Component Analysis.

## Scree plot - role ambiguity




**Component Matrix[a]**

| | Component |
|---|---|
| | 1 |
| RA1certain about job authority | .673 |
| RA2 clear goals and objectives for job | .837 |
| RA3 have divided time properly | .776 |
| RA4 known about responsibilities | .830 |
| RA5 known about what is expected | .821 |
| RA6 explanation given are clear | .769 |

a. 1 component extracted.

## Factor Analysis -competency

**KMO and Bartlett's Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .957 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 5235.586 |
| | df | 276 |
| | Sig. | .000 |

**Communalities**

| | Initial | Extraction |
|---|---|---|
| C1 teamwork & cooperation | 1.000 | .243 |
| C2 flexibility | 1.000 | .598 |
| C3 relationship building | 1.000 | .570 |
| C4 computer literacy | 1.000 | .600 |
| C5 conceptual thinking | 1.000 | .652 |
| C6 technical expertise | 1.000 | .527 |
| C7 organizational awareness | 1.000 | .547 |
| C8 order, quality & accuracy | 1.000 | .647 |
| C9 impact & influence on others | 1.000 | .518 |
| C10 initiative | 1.000 | .621 |
| C11 customer service orientation | 1.000 | .520 |
| C12 developing others | 1.000 | .577 |
| C13 directiveness | 1.000 | .717 |
| C14 team leadership | 1.000 | .705 |
| C15 analytical thinking | 1.000 | .664 |
| C16 self control | 1.000 | .537 |

| | | |
|---|---|---|
| C17 organization commitment | 1.000 | .543 |
| C18 ability & willingness to learn | 1.000 | .635 |
| C19 interpersonal understanding | 1.000 | .666 |
| C20 self confidence | 1.000 | .505 |
| C21 personal planning & org skills | 1.000 | .580 |
| C22 written communication | 1.000 | .636 |
| C23 information seeking | 1.000 | .739 |
| C24 achievement orientation | 1.000 | .704 |

Extraction Method: Principal Component Analysis.

**Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | |
|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance |
| 1 | 13.187 | 54.945 | 54.945 | 13.187 | 54.945 |
| 2 | 1.064 | 4.432 | 59.378 | 1.064 | 4.432 |
| 3 | .968 | 4.035 | 63.413 | | |
| 4 | .850 | 3.542 | 66.954 | | |
| 5 | .782 | 3.257 | 70.212 | | |
| 6 | .745 | 3.104 | 73.315 | | |
| 7 | .700 | 2.915 | 76.230 | | |
| 8 | .635 | 2.647 | 78.877 | | |
| 9 | .516 | 2.149 | 81.026 | | |
| 10 | .480 | 2.002 | 83.028 | | |
| 11 | .440 | 1.835 | 84.863 | | |
| 12 | .426 | 1.776 | 86.639 | | |
| 13 | .413 | 1.721 | 88.360 | | |
| 14 | .380 | 1.582 | 89.942 | | |
| 15 | .337 | 1.405 | 91.347 | | |
| 16 | .319 | 1.328 | 92.675 | | |
| 17 | .296 | 1.232 | 93.907 | | |
| 18 | .271 | 1.129 | 95.035 | | |
| 19 | .248 | 1.032 | 96.067 | | |
| 20 | .220 | .917 | 96.985 | | |
| 21 | .207 | .863 | 97.847 | | |
| 22 | .195 | .811 | 98.659 | | |
| 23 | .172 | .719 | 99.378 | | |
| 24 | .149 | .622 | 100.000 | | |

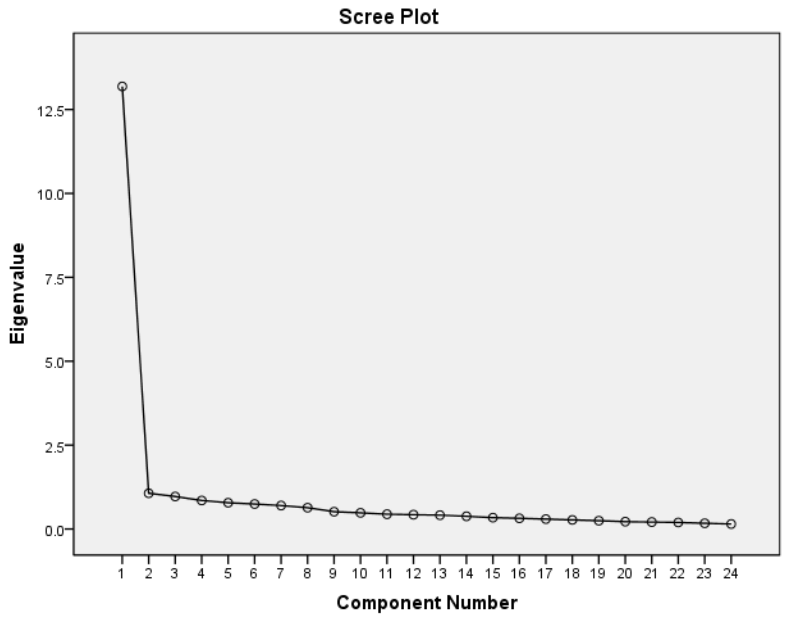
Extraction Method: Principal Component Analysis.

**Total Variance Explained**

| Component | Extraction Sums of Squared Loadings | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|
| | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 54.945 | 7.977 | 33.239 | 33.239 |
| 2 | 59.378 | 6.273 | 26.138 | 59.378 |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |
| 23 | | | | |
| 24 | | | | |

Extraction Method: Principal Component Analysis.

## Scree plot - competency



**Component Matrix[a]**

| | Component | |
|---|---|---|
| | 1 | 2 |
| C1 teamwork & cooperation | .488 | |
| C2 flexibility | .734 | |
| C3 relationship building | .755 | |
| C4 computer literacy | .767 | |
| C5 conceptual thinking | .803 | |
| C6 technical expertise | .725 | |
| C7 organizational awareness | .739 | |
| C8 order, quality & accuracy | .797 | |
| C9 impact & influence on others | .716 | |
| C10 initiative | .774 | |
| C11 customer service orientation | .718 | |
| C12 developing others | .729 | |
| C13 directiveness | .692 | .488 |
| C14 team leadership | .729 | .417 |
| C15 analytical thinking | .789 | |
| C16 self control | .716 | |
| C17 organization commitment | .680 | |
| C18 ability & willingness to learn | .786 | |
| C19 interpersonal understanding | .783 | |
| C20 self confidence | .708 | |
| C21 personal planning & org skills | .752 | |
| C22 written communication | .768 | |
| C23 information seeking | .803 | |
| C24 achievement orientation | .775 | |

a. 2 components extracted.

**Rotated Component Matrix[a]**

| | Component | |
|---|---|---|
| | 1 | 2 |
| C1 teamwork & cooperation | | .371 |
| C2 flexibility | .714 | |
| C3 relationship building | .581 | .482 |
| C4 computer literacy | .650 | .422 |
| C5 conceptual thinking | .660 | .465 |
| C6 technical expertise | .531 | .495 |
| C7 organizational awareness | .540 | .505 |
| C8 order, quality & accuracy | .529 | .606 |
| C9 impact & influence on others | .488 | .529 |
| C10 initiative | .486 | .621 |
| C11 customer service orientation | .583 | .425 |
| C12 developing others | .410 | .639 |
| C13 directiveness | | .822 |
| C14 team leadership | | .792 |
| C15 analytical thinking | .462 | .671 |
| C16 self control | .642 | .353 |
| C17 organization commitment | | .661 |
| C18 ability & willingness to learn | .681 | .414 |
| C19 interpersonal understanding | .741 | |
| C20 self confidence | .494 | .510 |
| C21 personal planning & org skills | .649 | .399 |
| C22 written communication | .720 | |
| C23 information seeking | .807 | |
| C24 achievement orientation | .796 | |

**Rotated Component Matrix[a]**

| | Component | |
|---|---|---|
| | 1 | 2 |
| C1 teamwork & cooperation | | .371 |
| C2 flexibility | .714 | |
| C3 relationship building | .581 | .482 |
| C4 computer literacy | .650 | .422 |
| C5 conceptual thinking | .660 | .465 |
| C6 technical expertise | .531 | .495 |
| C7 organizational awareness | .540 | .505 |
| C8 order, quality & accuracy | .529 | .606 |
| C9 impact & influence on others | .488 | .529 |
| C10 initiative | .486 | .621 |
| C11 customer service orientation | .583 | .425 |
| C12 developing others | .410 | .639 |
| C13 directiveness | | .822 |
| C14 team leadership | | .792 |
| C15 analytical thinking | .462 | .671 |
| C16 self control | .642 | .353 |
| C17 organization commitment | | .661 |
| C18 ability & willingness to learn | .681 | .414 |
| C19 interpersonal understanding | .741 | |
| C20 self confidence | .494 | .510 |
| C21 personal planning & org skills | .649 | .399 |
| C22 written communication | .720 | |
| C23 information seeking | .807 | |
| C24 achievement orientation | .796 | |

a. Rotation converged in 3 iterations.

**Component Transformation Matrix**

| Component | 1 | 2 |
|---|---|---|
| 1 | .755 | .656 |
| 2 | -.656 | .755 |

## Factor Analysis – person-job fit

**KMO and Bartlett's Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .876 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 848.230 |
| | df | 15 |
| | Sig. | .000 |

**Communalities**

| | Initial | Extraction |
|---|---|---|
| PJ1 goof fit bet job and what being looked for | 1.000 | .558 |
| PJ2 attributes looked for fulfilled by present job | 1.000 | .687 |
| PJ3 job gives everything that is expected | 1.000 | .607 |
| PJ4good match between job demand and skills | 1.000 | .633 |
| PJ5 abilities & training fit with job requirement | 1.000 | .592 |
| PJ6 personal abilities & edu match with job demand | 1.000 | .701 |

Extraction Method: Principal Component Analysis.

**Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings |
|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total |
| 1 | 3.778 | 62.969 | 62.969 | 3.778 |
| 2 | .621 | 10.349 | 73.317 | |
| 3 | .508 | 8.474 | 81.791 | |
| 4 | .462 | 7.693 | 89.483 | |
| 5 | .345 | 5.758 | 95.241 | |
| 6 | .286 | 4.759 | 100.000 | |

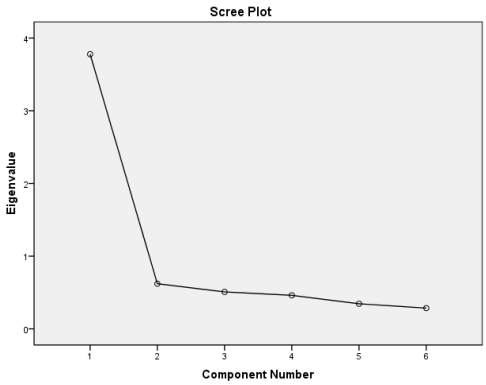
Extraction Method: Principal Component Analysis.

**Total Variance Explained**

| Component | Extraction Sums of Squared Loadings | |
|---|---|---|
| | % of Variance | Cumulative % |
| 1 | 62.969 | 62.969 |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |

Extraction Method: Principal Component Analysis.

## Scree plot – person-job fit




**Component Matrix[a]**

| | Component |
|---|---|
| | 1 |
| PJ1 goof fit bet job and what being looked for | .747 |
| PJ2 attributes looked for fulfilled by present job | .829 |
| PJ3 job gives everything that is expected | .779 |
| PJ4good match between job demand and skills | .796 |
| PJ5 abilities & training fit with job requirement | .770 |
| PJ6 personal abilities & edu match with job demand | .837 |

a. 1 component extracted.

## Descriptive analysis

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Statistic |
| Job performance | 295 | 3.00 | 7.00 | 5.6576 | .77793 |
| Role ambiguity | 295 | 1.00 | 5.17 | 2.4986 | .80598 |
| Competency | 295 | 3.42 | 7.00 | 5.4706 | .89014 |
| Person-job fit | 295 | 2.83 | 7.00 | 5.1254 | .82610 |
| job_comp | 295 | 3.00 | 7.00 | 5.4806 | .92389 |
| behav_comp | 295 | 3.33 | 7.00 | 5.5638 | .90192 |
| Valid N (listwise) | 295 | | | | |

**Descriptive Statistics**

| | Skewness | | Kurtosis | |
|---|---|---|---|---|
| | Statistic | Std. Error | Statistic | Std. Error |
| Job performance | -.348 | .142 | .064 | .283 |
| Role ambiguity | **.549** | **.142** | **-.041** | **.283** |
| Competency | -.592 | .142 | -.554 | .283 |
| Person-job fit | -.137 | .142 | -.164 | .283 |
| job_comp | -.602 | .142 | -.436 | .283 |
| behav_comp | -.476 | .142 | -.749 | .283 |
| Valid N (listwise) | | | | |

## Correlation analysis

**Correlations**

| | | Job performance | Role ambiguity | Competency | job_comp |
|---|---|---|---|---|---|
| Job performance | Pearson Correlation | 1 | -.686** | .549** | .547** |
| | Sig. (2-tailed) | | .000 | .000 | .000 |
| | N | 295 | 295 | 295 | 295 |
| Role ambiguity | Pearson Correlation | -.686** | 1 | -.585** | -.575** |
| | Sig. (2-tailed) | .000 | | .000 | .000 |
| | N | 295 | 295 | 295 | 295 |
| Competency | Pearson Correlation | .549** | -.585** | 1 | .977** |
| | Sig. (2-tailed) | .000 | .000 | | .000 |
| | N | 295 | 295 | 295 | 295 |
| job_comp | Pearson Correlation | .547** | -.575** | .977** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | |
| | N | 295 | 295 | 295 | 295 |
| behav_comp | Pearson Correlation | .518** | -.573** | .925** | .850** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 |
| | N | 295 | 295 | 295 | 295 |
| Person-job fit | Pearson Correlation | .478** | -.550** | .521** | .522** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 |
| | N | 295 | 295 | 295 | 295 |

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

**Correlations -continue**

| | | behav_comp | Person-job fit |
|---|---|---|---|
| Job performance | Pearson Correlation | .518** | .478** |
| | Sig. (2-tailed) | .000 | .000 |
| | N | 295 | 295 |
| Role ambiguity | Pearson Correlation | -.573** | -.550** |
| | Sig. (2-tailed) | .000 | .000 |
| | N | 295 | 295 |
| Competency | Pearson Correlation | .925** | .521** |
| | Sig. (2-tailed) | .000 | .000 |
| | N | 295 | 295 |
| job_comp | Pearson Correlation | .850** | .522** |
| | Sig. (2-tailed) | .000 | .000 |
| | N | 295 | 295 |
| behav_comp | Pearson Correlation | 1 | .478** |
| | Sig. (2-tailed) | | .000 |
| | N | 295 | 295 |
| Person-job fit | Pearson Correlation | .478** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 295 | 295 |

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

## Regression analysis

**Variables Entered/Removed[b]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | Person-job fit, Competency, Role ambiguity[a] | . | Enter |

a. All requested variables entered.
b. Dependent Variable: Job performance

**Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .714[a] | .509 | .504 | .54779 | 1.758 |

a. Predictors: (Constant), Person-job fit, Competency, Role ambiguity
b. Dependent Variable: Job performance

**ANOVA[b]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 90.599 | 3 | 30.200 | 100.641 | .000[a] |
| | Residual | 87.322 | 291 | .300 | | |
| | Total | 177.920 | 294 | | | |

a. Predictors: (Constant), Person-job fit, Competency, Role ambiguity
b. Dependent Variable: Job performance

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 5.547 | .397 | | 13.970 | .000 |
| | Role ambiguity | -.504 | .052 | -.522 | -9.643 | .000 |
| | Competency | .173 | .046 | .198 | 3.746 | .000 |
| | Person-job fit | .082 | .048 | .087 | 1.699 | .090 |

a. Dependent Variable: Job performance

**Coefficients[a]**

| Model | | Collinearity Statistics | |
|---|---|---|---|
| | | Tolerance | VIF |
| 1 | (Constant) | | |
| | Role ambiguity | .575 | 1.739 |
| | Competency | .601 | 1.664 |
| | Person-job fit | .637 | 1.569 |

a. Dependent Variable: Job performance

**Collinearity Diagnostics[a]**

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions | |
|---|---|---|---|---|---|
| | | | | (Constant) | Role ambiguity |
| 1 | 1 | 3.870 | 1.000 | .00 | .00 |
| | 2 | .113 | 5.845 | .00 | .34 |
| | 3 | .012 | 17.808 | .00 | .00 |
| | 4 | .005 | 28.461 | 1.00 | .66 |

a. Dependent Variable: Job performance

**Collinearity Diagnostics**[a]

| Model | Dimension | Variance Proportions | |
|---|---|---|---|
| | | Competency | Person-job fit |
| 1 | 1 | .00 | .00 |
| | 2 | .02 | .02 |
| | 3 | .61 | .69 |
| | 4 | .37 | .29 |

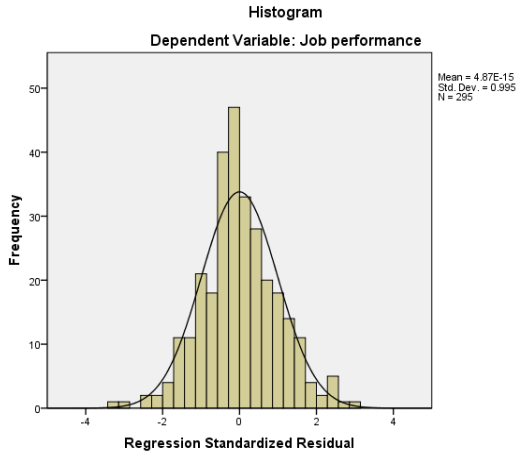
a. Dependent Variable: Job performance

**Residuals Statistics**[a]

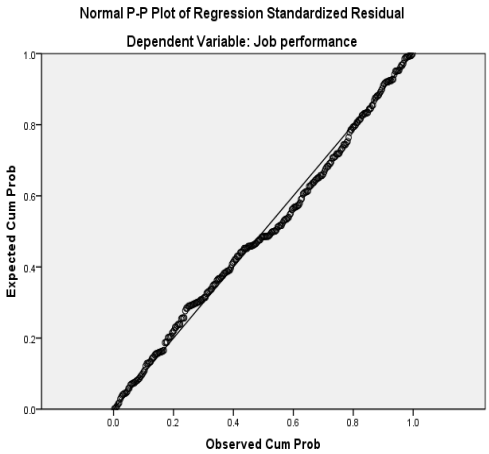
| | Minimum | Maximum | Mean | Std. Deviation | N |
|---|---|---|---|---|---|
| Predicted Value | 3.8605 | 6.8180 | 5.6576 | .55512 | 295 |
| Residual | -1.73696 | 1.67196 | .00000 | .54499 | 295 |
| Std. Predicted Value | -3.237 | 2.090 | .000 | 1.000 | 295 |
| Std. Residual | -3.171 | 3.052 | .000 | .995 | 295 |

a. Dependent Variable: Job performance

## Histogram




## Normal probability plot



**Reassessment of measurement reliability after factor analysis**

**Scale: Job performance**

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 295 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 295 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| .864 | .864 | 4 |

**Scale: Role ambiguity**

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 294 | 99.7 |
| | Excluded[a] | 1 | .3 |
| | Total | 295 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| .876 | .875 | 6 |

**Scale: job/techni competency**

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 295 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 295 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .948 | 14 |

**Scale: behaviour competency**

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 295 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 295 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .913 | 10 |

**Scale: Person-job fit**

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 295 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 295 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| .882 | .882 | 6 |