THE UNIVERSITY OF HULL

Academic Leadership and Work-Related Attitude

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by

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Dedication

All praises to Allah S.W.T.

In the name of Allah, Most Gracious, Most Merciful. Praise be to Allah The Cherisher and Sustainer of the Worlds. Most Gracious, Most Merciful. Master of the Day of Judgment. Thee do we worship, And Thine aid we seek. Show us the straight way. The way of those on whom Thou has bestowed Thy Grace, Those whose (portion) is not wrath. And who go not ashtray. [The Opening Chapter: 1-7]

I am deeply thankful to Allah for guiding me during the hardship and agony of pursuing peace, great life and success. I accepted His tests and am grateful for being His servant. May Allah strengthen my *taqwa* until the end of my life.

In the name of Allah S.W.T., I am dedicating this thesis:

To my late parents-in-law who were there when needed
Almarhumah Hajah Rokiah binti Haji Ahmad & Almarhum Haji Karia bin Din
May Allah have mercy be on their souls and grant them Jannah

To my parents who gave me the opportunity to be on this Earth
Haji Abu Hassan Asaari bin Haji Mamat & Hajah Jamilah binti Haji Karim
May Allah's blessing always be with them

To my beloved wife
Dr. Hajah Noorliza binti Haji Karia

And my brilliant children
Nur Yusrina binti Muhammad Hasmi
Muhammad Hazzeem Asyraff bin Muhammad Hasmi
Muhammad Haqqeen Affhamm bin Muhammad Hasmi
Nur Firzana binti Muhammad Hasmi

MAY ALLAH BLESS AND GRANT YOU SUCCESS AND JANNAH
AMEEN

Acknowledgement

In the name of Allah S.W.T., the most Beneficent, the most Merciful thus this thesis has been possible.

Abstract

At a global level, changes in the higher education environment - such as changing funding mechanisms, regulations and audit processes, increasing customer demands, competition and internationalization, and ongoing reduction in state resources for funding Higher Education has resulted in increased interest by academics and practitioners on leadership in the higher education sector. Recent studies have noted that there has been very limited research conducted on the question of which forms of academic leadership are associated with individual academic performance. Globalisation of higher education environment can bring many benefits to higher education organisations, but it can also expose them to a number of risks and challenges. The purpose of this study was to explore how leaders in the higher education sector are using their leadership abilities and skills to bring about enhanced academic performance from their academic colleagues and subordinates'. Therefore, in this research aims to identify which specific aspects of academic leadership skill-set have the maximum impact on academics' performance. This research used six measures; namely visionary, adaptable to change, competency, effective leadership, transformational style and charisma, for quantifying academic leadership. Individual academic performance was measured by the construct titled work-related attitude (i.e. work-related attitude was considered to be a proxy for individual academic performance). Work-related attitude was quantified by three measures; namely job satisfaction, career satisfaction and organizational commitment. Both academic leadership landscape and academics' work-related attitude were modelled as latent constructs.

Based on data from fifteen interviews and a survey of faculty members of 261 academic staff from twenty Malaysian public universities, factor analyses was used to explore four groups of academic leadership constructs; namely innovative, effective, executive and adaptive. Similarly, factor analyses were used to establish four groups of work-related attitude constructs; namely organizational commitment, career satisfaction, job satisfaction and job skills. Regression analyses suggest that academic leadership was positively associated with work-related attitude. Further, multiple regression analyses suggests executive and innovative academic leadership behavioural traits were positively associated with organizational commitment, career satisfaction, job satisfaction and job skills of work-related attitude. Unfortunately, behavioural traits titled "effective" and "adaptive" had no association with any work-related attitude (i.e. academic performance).

The implications of the results for theory and practice are significant. This research provides empirical evidence for the development of a theoretical model for academic leadership grounded in self-leadership theory. Further, this study also proposes a general definition of academic leadership according to faculty members' perspectives and a diagnostic instrument for measurement of academic leadership and work-related attitude. The study gives a new perspective on factors that contribute toward academic leadership and work-related attitude. This study revealed which contributing factors of academic leadership and work-related attitude have significant impact on professional leadership in academia. Empirically, the study reveals the underpinning factors that influence the faculty members in understanding and exploring academic leadership and work-related attitudes. This study can assist faculty members of public universities in Malaysia in dealing with the challenges and demands in academia. University administrators (especially the vice chancellors), may urge their human resources departments to encourage their faculty members toward demonstrating executive and

innovative behavioural traits in pursuing their academic life. Finally, this study contributes towards testing a model, instrument and research process that is based in the US in an Asian country – Malaysia. Moreover, the proposed model has the potential to be replicated in other countries.

The main originality and value of this study is that it has addressed a research gap concerning academic leadership approaches to assessing and enhancing individual academic performance in a global context. The paper has identified which forms of academic leadership are associated with enhanced individual academic performance. In this context, this study proposes a new categorisation for measuring which specific aspects of academic leadership skill-set have the maximum impact on academics' performance, and offers a characterisation of academic leadership skill-set on academics' performance.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

For the past few decades, leadership continues to be one of the most exciting issues for scholars in their research. In brief, scholars have been studying various issues that relate to leadership in an organization and individuals such as ethics (Rees & Johari, 2010), culture (Resick, Martin, Keating, Dickinson, Kwan & Peng, 2011; Kaifi & Mujtaba, 2011), cross-culture (Deng & Gibson, 2009; Ochieng & Price, 2009), skills (Analoui, Ahmed & Kakabadse, 2010; Cater & Pucko, 2010), roles (Rees & Johari, 2010; Berry, 2011), empowerment (Ghazzawi, 2009; Jamali, Sidani & Zouein, 2009), accountability (Stafrace & Lilly, 2008; Dunlap, 2011), responsibility (Rake & Grayson, 2009; White, 2010), performance (Chandrakumara, De Zoysa & Manawaduge, 2011; Ruiz, Ruiz & Martinez, 2011), technology (Chalhoub, 2010, Nicholas & Hidding, 2010), politics (Longenecker & Gioia, 2001; Cavaleri & Reed, 2008), legal duties (Haraway & Kunselman, 2006; Molyneux, 2007), social responsibility (Cherniss, Grimm & Liautaud, 2010; Akiyama, 2010), demographic environment (Dulcic & Raguz, 2006; Johnson, 2006), leadership styles (Raguz, 2010; Wang, Huang, Chu & Wang, 2010), management practices (Chalhoub, 2010; Paarlberg & Lavigna, 2010), quality management (Pei-Lee, Chen-Chen & Arumugam, 2009; Kivipold & Vadi, 2010), strategy (de Waal, Maritz & Shieh, 2010; McCuiston & DeLucenay, 2010), communication (O'Gorman & Gillespie, 2010; Kumarasinghe & Hoshino, 2010), relationship (Tjosvold, 2008; Clarke, Bailey & Burr, 2008), task and role (Armistead & Kiely, 2003; Mills & Spencer, 2005), and attitude (Wallace & Marchant, 2009; Fein, Tziner & Vasiliu, 2010); and the list is not exhaustive. Moreover, Nahavandi (2009) asserts that leadership is practiced by every member in an organization, regardless of status. This makes the study of leadership interesting to be explored (Koshal, Gupta & Koshal, 1998).

Leadership is, basically, the process of social influence from superior to subordinates; in other words, the ability to exert influence over others (Kochan, Schmidt & DeCotiis, 1975). Leadership is also seen as the major driving force behind this continuous recognition of performance. Leaders with effective leadership can work together with their followers to achieve goals, can function well together, and can adapt to changing demands from external forces (Nahavandi, 2009). Many studies attempt to explore the leadership effect on work outcomes such as employee commitment (Tjosvold, 2008;

Eddy, Lorenzet & Mastrangelo, 2008; Lee & Ahmad, 2009), job satisfaction (Lee & Ahmad, 2009; Duffield, Roche, O'Brien-Pallas & Catling-Paull, 2009), turnover intention (Walsh & Taylor, 2007; Ansari, Hung & Aafaqi, 2007), performance (Porr & Field, 2006; Kivipold & Vadi, 2010), attitudes (Rahman & Norling, 1991; Martin & Bush, 2003), planning (Sayers, 2009; Wilson & Eilertsen, 2010), and personal development (Raine & Rubienska, 2008; Mannion, 2009); and, again, the list is not exhaustive.

1.2   Study Background

My world view of leadership was constructed from working in the private sectors in finance, banking and telecommunication. My involvement with various leaders in finance and banking was with top-down leadership where finance and banking were governed by strict regulations and standards of practice. As a comparison of leaders in the telecommunication sector, they were based, more, on business acumen, that looked for opportunities and profits making. Thus leadership was mixed in terms of meeting the organization's objectives and dependent upon the market forces of the industry. Thus these leaders had to be flexible and accommodative in their leadership approaches.

After almost a decade in academia, my world view of leadership has changed. The leadership atmosphere in a public university is directed as compared to private organizations. The top-down and mixed leadership of a public university has to be geared toward the government, ministry, community, students and colleagues. Recently, the Ministry of Higher Education of Malaysia (MOHE) urged faculty members in public universities to be innovative and productive in teaching, funding, research, consultancy, publications of books and journal articles, networking at the local and international levels, and community involvements. Thus the MOHE's directive gives impetus to this study to explore the academic leadership of faculty members in public universities.

The academia world view encouraged me to explore how academic leadership has developed in the context of public universities in Malaysia. What does it take for faculty members of public universities to pursue their academic leadership? Are there specific acts of academic leadership needed in managing public universities? What components of academic leadership are needed in faculty members? Those are several questions that are involved with the world of academia.

Further, I am also interested to explore the faculty members' psychological impact from their academic leadership. In this study, the psychological impact is hypothesized as the effect on the faculty members' behaviour which will affect their thinking. Thus the psychological impact of faculty members' on academic leadership is examined on their work-related attitude, namely job satisfaction, career satisfaction and organizational commitment. Job satisfaction, career satisfaction and organizational commitment are examined regarding their impact on faculty members' psychological thinking. How do faculty members' relate their academic leadership toward work-related attitude? Hence, this study explores the impact of academic leadership on work-related attitude of faculty members.

1.3   Research Problem

Faculty members of public universities in Malaysia are given responsibilities and accountabilities toward themselves, students, the university, community and government. Faculty members need to cope with those responsibilities and accountabilities. According to a decade of literature, the faculty members' responsibilities take the form of teaching (Le Maistre, 2000; Butler, 2000), scholarship (Alteen, Didham & Stratton, 2009; Aboudan, 2011), supervision (Breit, 1987; Bulger, 2006), research (Simpson, 2003; Jones, Davis & Price, 2004), consultancy (Cater-Steel, Hine & Grant, 2010), civic engagement and community outreach participation (Maloney, 2000; Hollander & Saltmarsh, 2000), and publishing books and journal articles (Pickerd, Stephen, Summers & Wood, 2011; Bates, Waldrup, Shea & Heflin, 2011).

Further, faculty members of public universities are entrusted to train future generations of scholars, scientists and practitioners (Crow, 2010). They use their expertise in delivering knowledge and skills to those future generations. In fulfilling trust, faculty members need capabilities of academic leadership. Moreover, these responsibilities and accountabilities on faculty members could affect their performance and work-related attitude.

Further, the MOHE expects public universities to excel in local and global recognition among higher learning institutions (Hotho, Mcgoldrick & Work, 2008). In the local context, public universities are urged to compete among themselves to be in the category of Research University (RU). Moreover, the MOHE also urges universities in

the category of RU to compete among themselves to be categorized as the Accelerated Programme for Excellence (APEX) university. In return for this category, public universities are given the incentive of funding toward research. Thus these demands from the MOHE force public university management to urge their faculty members to fulfil their responsibilities and accountabilities as listed earlier. Again this chain effect from the MOHE and university management has an impact on faculty members. As a result, faculty members have to be proficient in their academic leadership in achieving their responsibilities and accountabilities which will be reflected in meeting the objectives of the university and MOHE. Thus the changes in academic leadership are reflected in the faculty members' work-related attitude.

On the other hand, the study expects a causal effect from the changes of academic leadership among faculty members. This study perceives that the causal effect on the faculty members will relate to their performance. This study intends to explore faculty members' work-related attitude as the impact from their academic leadership. This study will explore the work-related attitude of faculty members on their job satisfaction, career satisfaction and organizational commitment.

Do faculty members of public universities in Malaysia practice academic leadership? What does it take for them to have academic leadership? What are the components needed in having academic leadership? These questions need to be explored with regard to faculty members of public universities of Malaysia.

1.4   Gaps and Research Contributions

The review of leadership in public and private organizations is concentrated on private organizations, with less attention on public organizations. In addition, most reviews on leadership concentrate on private organizations because they can link the leadership of managers with factors such as financial and non-financial, and tangible and intangible organizational performance measures. This move is further motivated by the immediate and easy identification of leadership in terms of styles, skills and traits. In general, most leadership studies are based on a Western context (Jogulu & Wood, 2008).

> "The consensus is that transformational leadership is the style of leadership
> that is most strongly equated with effective leadership. However, these

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findings may not be appropriate outside the Western paradigm." (Jogulu & Wood, 2008; p.601)

Based on a review of literature over the past two decades on higher learning institutions and leadership of faculty members, leadership receives less attention. In general, there are several studies on faculty members: leadership development (Jenkins & Jensen, 2010), transformational leadership (Bodla & Nawaz, 2010a), comparative between faculty members in the public and private higher education institutions (Bodla & Nawaz, 2010b), faculty members' academic leadership (Bikmoradi, Brommels, Shoghli, Khorasani & Masiello, 2009), leadership roles (Persily, 2004), leadership transition (Crane, O'Hern & Lawler, 2009), leadership competencies assessment (Al-Omari & Salameh, 2009), academic ringmaster (Toews & Yazedjian, 2007), department chairs' leadership styles (Whitsett, 2007), leadership wisdom (Davis & Page, 2006), deans' leadership roles (Favero, 2006) and behaviour (Brown & Moshavi, 2002), and faculty morale (Phillips-Miller, Pitcher & Olson, 2000).

This study gave an opportunity to examine and explore the "black box" of faculty members who worked in public universities in Malaysia between their attributes of academic leadership and their work-related attitude. The faculty members' "black box" is examined in the relationship and impact between academic leadership and work-related attitude (Hunt, Boal & Sorenson, 1990; Lee & Feng, 2008). In the study's context the black box is referred to as the human mind which cannot be opened to look inside and see how it works. Instead, we can only guess how it works on what happened when something was done to it (as an input) and what occurred as a result of that (as an output).

From reviews, there was no general definition of leadership available. Most leadership studies are on organizations and the definition is based on the organizations' context (Andert, Platt & Alexakis, 2011). Similarly in academic leadership, there was also no general definition. Most reviews express their conceptualization of academic leadership rather than defining it (Rowley & Sherman, 2003; Randall & Coakley, 2006; Koen & Bitzer, 2010). Thus this study intends to generate a general definition of academic leadership in the context of faculty members in the Malaysian public universities.

Further, in the context of Malaysia, there are a few studies on academic leadership on public leadership roles and leadership effectiveness (Vadeveloo, Ngah & Jusoff, 2009).

This study intends to contribute to the body of knowledge in the literature of academic leadership on faculty members of Malaysian public universities. Further Whetten (1989, p.493) says that:

> "The common element in advancing theory development by applying it in new settings is the need for theoretical feedback loop. Theorists need to learn something new about the theory itself as a result of working with it under different conditions. That is, new applications should improve the tool, not merely reaffirm its utility."

On individual performance, no studies could be found that examine academic leadership toward a broader psychological attachment to the organization and the job. Therefore, this study examines the psychological attachment or work-related attitude in relation to academic leadership on faculty members from literature in management (Weiss, Dawis, England & Lofquist, 1967; Porter, Steers, Mowday & Boulian, 1974; Mowday, Steers & Porter, 1979; Greenhaus, Parasuraman & Wormley, 1990; Karia & Asaari, 2006; O'Shea & Kirrane, 2008; Rooney, Gottlieb & Newby-Clark, 2009; Alas, Vadi & Sun, 2009).

There is no specific diagnostic instrument in measuring academic leadership. Most diagnostic instruments are based on the leadership studies of public and private organizations (Alban-Metcalfe & Alimo-Metcalfe, 2000; Lee, 2005; Downey, Papageorgiou & Stough, 2006; Limsila & Ogunlana, 2007; Alimo-Metcalfe & Alban-Metcalfe, 2006). In public organizations, leadership is the focus of scholars as the subject can be linked toward the excellence (McLaurin, 2008; Kennedy, 2009) and effectiveness (Rajagopal, 2008; Samad, 2009) of leaders. Meanwhile, in public organizations the subject received less attention as compared to studies in private organizations. Public organizations are identified as government organizations that serve public interests (Bozeman & Bretschneider, 1994). In academic leadership, universities are based on a strong departmental model (Sirvanci, 2004). Interestingly, the common denominator among private and public organizations, and universities is that scholars are interested in examining leadership in terms of excellence, effectiveness and competence. Diagnostic instruments for private and public organizations are available, thus, this study proposes the generation of an academic leadership diagnostic instrument.

In conclusion, this study contributes to the body of knowledge on academic leadership and work-related attitude of faculty members in Malaysian public universities (Whetten, 1989). This study proposes to construct academic leadership dimensions for faculty members in Malaysian public universities. Methodologically, this study intends to contribute a diagnostic instrument for academic leadership and work-related attitude. Finally the study intends to link the construct of academic leadership to individual performance specifically to faculty members' work-related attitudes.

1.5   Research Objectives

In recent years, leadership in the higher education sector has had increased interest by academics and practitioners. This has been partly attributed to the changes that are happening in the higher education environment such as changing funding mechanisms, regulations and audit, increasing customer demands, competition and internationalization, and ongoing reduction in governmental resources. However, recent studies have noted that there has been very limited research conducted on the question of which forms of academic leadership are associated with individual academic performance. Therefore, this research aims to examine the impact of the academic leadership landscape on academics' work-related attitudes. In this research, both academic leadership landscape and academics' work-related attitudes are modelled as latent constructs. This research uses six measures, namely, visionary, adaptable to change, competency, effective leadership, transformational style and charisma, for quantifying academic leadership. The construct work-related attitude is also considered to be a proxy for individual academic performance, and is quantified by three measures, namely, job satisfaction, career satisfaction and organizational commitment. Further, this study also proposes a general definition of academic leadership according to faculty members' perspectives and a diagnostic instrument for measurement of academic leadership and work-related attitude.

1.6   Research Questions

The objectives of this study will be answered based on the following research questions (RQ):

RQ1 :   What is academic leadership as defined by faculty members?

RQ2 :   What are the components of academic leadership and work-related attitude?

RQ3 : What is the relationship between academic leadership and faculty members' work-related attitude?

RQ4 : What is the impact of academic leadership on faculty members' work-related attitude?

RQ1 and RQ2 will be answered by using semi-structured interviews. RQ3 and RQ4 will be answered by using a survey questionnaire on faculty members.

1.7 Significance of the Study

Higher education in Malaysia is governed by various legislations. The legislations are in the interest of protecting national interests. These legislations are set to ensure quality and integrity of Malaysian education. The quality and integrity are to be held by public universities at the highest level at all times. The provision of higher education is currently regulated by some of the following legislations (MOHE, 2011a):

1. The Education Act 1996 (Act 550).
2. The Private Higher Educational Institutions Act, 1996.
3. The National Council of Higher Education Act, 1996.
4. The National Accreditation Board Act, 1996 (replaced with the Malaysian Qualifications Agency Act, 2007).
5. The Universities and University Colleges (Amendment) Act, 1996.
6. The National Higher Education Fund Corporation Act, 1997 (Amendment 2000).

The government of Malaysia wants to transform the nation into a centre of educational excellence. Further the MOHE wants to internationalize the higher education sector as their high priority. Thus the MOHE (2011b) states that efforts have been made to improve the world ranking of Malaysian universities:

1. To have 100,000 international students by 2010.
2. To create more 'Malaysian Chairs' in overseas universities.
3. To collaborate and cooperate with world-renowned universities on research and academic matters.

The MOHE (2011b) also intends to pursue other initiatives which include the setting up of education promotion centres overseas, opening of offshore Malaysian university branch campuses in other countries and increasing trans-national education collaboration with overseas institutions as well as aggressively promoting Malaysian higher education in many parts of the world through road-shows.

A university is considered as an institution of virtue and knowledge that being provided through teaching, research, supervision and counselling. These are provided to full time and part time students, both undergraduate and postgraduate. The establishment of the National Higher Education Strategic Plan (PSPTN) is to transform higher education towards nurturing first class human capital which could play a key role in the march towards a developed nation status as envisaged by the 5th Prime Minister of Malaysia, Tun Abdullah bin Haji Ahmad Badawi in 2007 (StarOnline, 2011).

Moreover, the university's involvement with the community has given new challenges for faculty members in sharing and distributing their knowledge and expertise through various programmes on community outreach. Thus, in meeting those challenges in the classrooms and outside university, faculty members need to have capabilities of academic leadership. Faculty members as individuals have expertise in their field, subjects and scholarship. They are also involved in research and consultancy projects. Thus in academic leadership, faculty members need not have a position (such as programme chair, deputy dean, dean, etc.) in order to be recognized as having academic leadership. Faculty members without "official positions" are considered to have academic leadership as they manage their students in classrooms and supervise postgraduate students. These faculty members are leaders toward their students. It is more obvious if faculty members are involved in a group of research and consultancy projects. They may be a member of the group. On the other hand if they are the leaders of the group, they are in need of academic leadership to lead other members in the research and consultancy projects.

Moreover, there are faculty members who are appointed with administrative positions in the university, faculty and department. These faculty members are in need of academic leadership toward fulfilling their responsibilities and accountabilities required. Thus their challenges are tremendous as they are also involved in teaching, writing, research and consultancy.

The MOHE categorizes public universities into several categories according to their establishment. These public universities are categorized as accelerated programme for excellence university (APEX), research university (RU), comprehensive university (CU) and focus university (FU). As reported by the Higher Education Minister, four universities have retained their research university status for another three-year status from 2010 to 2012, namely, Universiti Malaya (UM), Universiti Kebangsaan Malaysia (UKM), Universiti Sains Malaysia (USM) and Universiti Putra Malaysia (UPM) (Warkah, 2010). The MOHE's decision to retain their research university status was based on the audit report of their performance for the year 2007 to 2009.

> "Generally, the four research universities have given a significant impact on achievements in research and churning out human capital in the country. Their achievements were gauged based on four aspects, namely, human capital, publication, patent and intellectual property rights (IPR) and income generating. In terms of human capital, the number of post-graduate students in the four universities showed an increase of 34 per cent, from 29,794 in 2007 to 39,819 last year. In terms of publication, the number of publications in the citation index increased from 2,303 in 2007 to 4,346 in 2009, which is an increase of 2,043 or 89 per cent. [The] nine per cent increase in IPR was recorded in 2007 at 217 to 237 last year and in terms of income, the amount generated increased to RM746.7 million last year from RM436 million in 2007." (Warkah, 2010)

Moreover StarOnline (2010) reported that seven public universities had been rated on their achievement of the Tier Five or "excellent" status in the Rating System for Malaysian Higher Education 2009 (SETARA). Thus, this concludes that the MOHE has been urging higher learning institutions in Malaysia to compete among them in the SETARA rating system. This shows the seriousness of the rating system on higher learning institutions in Malaysia.

Figure 1.1: The Tier Five Universities in Malaysia

Tier Five: Excellent universities in the Setara 2009 exercise	
Code	**Institution**
B	Curtin University of Technology Sarawak Campus
A	International Islamic University Malaysia
B	International Medical University
B	Management and Science University
B	Monash University Sunway Campus
B	Sunway University College
B	Swinburne University of Technology Sarawak Campus
B	Taylor's University College
B	The University of Nottingham Malaysia Campus
A	Universiti Kebangsaan Malaysia
B	Universiti Kuala Lumpur
A	Universiti Malaya
B	Multimedia University
A	Universiti Putra Malaysia
A	Universiti Sains Malaysia
A	Universiti Teknologi Malaysia
A	Universiti Teknologi Mara
B	Universiti Teknologi Petronas

Note: A = public institution, B = private institution
Source: Higher Education Ministry   GRAPHICS © 2010

Source: StarOnline (2010)

There are eleven private universities in Malaysia that achieve a similar rating. The private universities are not included in this study. The exclusion of private universities is based on their establishment "to provide high quality knowledge, producing competitive human capital and providing education of international standing" as stated by the Private Higher Education Management Sector (PHEMS) of the MOHE (studymalaysia.com, 2011). In this study, the focus is on public universities. The determination of public universities is "to develop the higher education institutions in Malaysia into world class centres of knowledge by 2020," and supported by "competent, innovative and responsible individuals who can fulfil national and international aspirations" (MOHE, 2011b). Thus the vision and mission on the establishment of public universities are significant to be explored in this study.

In StarOnline (2011), "Higher Education Minister Datuk Seri Mohamed Khaled Nordin said the ministry is planning to set up a research university devoted to the advancement of knowledge and education in social science by 2020." In getting the nation's interest "the social science university would be chosen from among 15 out of 20 public institutions of higher learning (IPTAs). Besides the 15 IPTAs, the country has five IPTAs focusing on science and technology." Thus this gives a challenge for faculty

members in public universities in achieving the nation's interest. This is to be done by "transforming the leadership of institutions of higher learning" in Malaysia.

Apart from the research university status, academic leadership is needed as "the Ministry of Higher Education (MOHE) has requested all local institutions of higher learning to submit their proposal for consideration to be selected as an APEX university. The Accelerated Programme for Excellence (APEX) is a fast track development programme for institutions of higher education to achieve and to be recognised as world-class institutions (Campbell, 2010). The statement has urged local institutions of higher education to excel themselves in teaching, research and consultancy, publications and generation of income in putting themselves on the world ranking of universities. As reported in the Ranking Web by World Universities, twenty public universities in Malaysia were reported as in Table 1.1 among the listed 12,000 of the world university list. From the list, the public universities have vast room for improvement in their world ranking as to be implemented by faculty members.

Table 1.1: Malaysian Public Universities World Ranking

World Rank	University
629	Universiti Sains Malaysia
694	Universiti Teknologi Malaysia
731	Universiti Kebangsaan Malaysia
771	Universiti Putra Malaysia
788	University of Malaya
995	Universiti Malaysia Perlis
1133	Universiti Teknologi Mara
1344	Universiti Malaysia Pahang
1491	International Islamic University of Malaysia
1572	Universiti Utara Malaysia
1838	Universiti Tun Hussein Onn Malaysia
1862	Universiti Malaysia Sabah
2274	Universiti Sains Islam Malaysia
2993	Universiti Pendidikan Sultan Idris
3450	Universiti Teknikal Malaysia Melaka
3859	Universiti Malaysia Terengganu
4571	Universiti Malaysia Sarawak
6995	National Defence University of Malaysia
6995	National Defence University of Malaysia
7027	Universiti Sultan Zainal Abidin (Universiti Darul Iman Malaysia)
7209	Universiti Malaysia Kelantan

Source: Ranking Web of World Universities: January 2011

MOHE realized that globalization would have an impact on the nation's higher education. Further, globalization had caused a large flow of students studying abroad

and the increasing number of colleges and universities providing educational services across borders (Tin, Ismail, Othman & Sulaiman, 2012). Globalization could create situation at which the nations are vulnerable to any political, economic and social changes that occur at any part of the globe (Othman, Singh, Tin & Sulaiman, 2012). In higher education, Othman et al. (2012) stated that globalization has caused drastic changes in education in the last decade of the 20th. Century. Globalization has demanded for a more competitive, knowledgeable, creative and innovative workforce, thus causing a change in the education system overall, from the level of pre-school to higher education. Arokiasamy and Nagappan (2012) added globalization pressure have made it imperative upon government to ensure that the public higher education institutions to become more competitive and at par with its global counterparts. Moreover globalization has required institutions of higher education to undergo revolutionary changes to ensure human capital are "produced" not for a product-based economy, but for a knowledge-based economy (Tin et al., 2012; Othman et al., 2012).

Thus there is a need of academic leadership among faculty members of Malaysian public universities to pursue their organization's vision and mission in fulfilling the country's and MOHE's needs. Academic leadership comprises leadership style, competency and a set of clearly defined values (Nahavandi, 2009). Title and rank are the status of formal leadership for a person (Philips-Donaldson, 2006). In some instances, faculty members are holding a formal administrative position and/or they are holding a position among fellow members in research groups. Philips-Donaldson (2006) claims "leadership is really about behaviour, not titles, rank or status."

This study examines the association between academic leadership and individual performance of faculty members. Specifically, the faculty members' individual performance is examined on their work-related attitude, namely, job satisfaction, career satisfaction and organizational commitment. This association explores the effect and impact of academic leadership on work-related attitude of faculty members. Moreover, the link between academic leadership and work-related attitude need to be understood in order to realize the causal effect of academic leadership on work-related attitude.

The construct of academic leadership is taken from the literature on leadership that relates to private and public organizations, and higher education institutions. Academic leadership constructs is adapted and adopted from the Ohio State University (Stogdill,

1963). The work-related attitude is explored from perspectives of job satisfaction, career satisfaction and organizational commitment (Weiss et al., 1967; Porter et al., 1974; Mowday et al., 1979; Greenhaus et al., 1990; Karia & Asaari, 2006). These perspectives are expected to have an impact from the behaviour of faculty members' academic leadership.

1.8 Thesis Structure

The research is composed of seven chapters. Below are the overviews on chapters of this study:

Chapter 2 starts the review of literature on the elements of leadership such as leadership styles, leadership traits and leadership skills. Further, leadership is to be reviewed on literature in public and private organizations, and higher learning institutions. Leadership structure of the Malaysian public university is to be discussed and elaborated. Further, research framework and hypotheses are developed based on literature review and interviews. The construct of academic leadership and work-related attitude are identified. Academic leadership is constructed as: visionary, adaptable to change, competency, effective leadership, transformational leadership and charisma. Work-related attitude is constructed as job satisfaction, career satisfaction and organizational commitment. The reviews of this chapter will lead to the methodology to be used in this study.

Chapter 3 discusses the research methodology used in this study. Both, qualitative and quantitative research approaches are used to achieve the research objectives and to answer the research questions. This study employs two methods of data collection, namely, interview and survey questionnaire. Although this study employs both methods of data collection, the main research methodology for this study is quantitative methods. The data obtained from the interviews and survey questionnaire will be analyzed for their findings in the following two chapters.

Chapter 4 presents the survey findings. The survey data is examined by using SPSS. The data is presented in terms of response rate, respondents' characteristics, descriptive statistics and construct validity. The data is examined by using factor analysis, correlation analysis and regression analysis. This chapter answers RQ3 and RQ4. The findings from this chapter will be discussed in Chapter 6.

Chapter 5 elaborates on the interview findings. It provides the data from face-to-face interview with faculty members in the public universities of Malaysia. The interviews explore the findings on the faculty members' perception of academic leadership definition, the components of academic leadership and work-related attitude. This chapter answers RQ1 and RQ2. The findings from this chapter will be discussed in Chapter 6.

Chapter 6 presents the discussion of this study. This chapter presents the comprehensive discussion on the findings based on the results from data analysis and hypotheses testing. This chapter presents the academic leadership and work-related attitude components. This chapter presents the answers to research questions RQ1 to RQ4 in achieving its main research objective and four sub-research objectives. This chapter will lead to the final chapter of this study – the conclusion.

Chapter 7 presents a conclusion of this research. It presents the study's recap, the reflection of the learning process, study's contributions, and limitation and future research.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Historically, the term leadership, as a concept for academic study, was coined during the 1930s (Alimo-Metcalfe & Alban-Metcalfe, 2005; Thach & Thompson, 2007). It began with situational and contingency leadership by scholars such as Fiedler (1996) and Vroom (2003). Further, these scholars focused on identifying leadership styles and behaviours in order to predict outcomes. In the early 1980s, there was a major paradigm shift in leadership approaches from transactional to transformational (Wang, Law, Hackett, Wang & Chen, 2005; Vigoda-Gadot, 2007). Meanwhile in the late 1970s to 1980s, there were constant changes concerning the concept of leadership; and what was considered as the norm. The main changes were new leadership, and visionary and charismatic leadership (Alimo-Metcalfe & Alban-Metcalfe, 2001; Javidan & Waldman, 2003) in meeting the present competitive environment. However as Vigoda-Gadot (2007, p.663) indicates "the current theory of leadership still focuses on transformational leadership and transactional leadership as core concepts in the field." In sum, almost every review indicates the importance of leadership as an essential ingredient of positions with supervisory responsibilities in any organization (Rowley & Sherman, 2003) and as vital to achieving organizational objectives (Askling & Stensaker, 2002).

Most industries are experiencing an increasingly fast-paced competitive environment with profound and abrupt changes in technologies and markets. This development puts growing demands on businesses as they aim to adapt to changing conditions. Although the reviews concentrate on private organizations, this situation has made a similar impact on public organizations. Leaders in public organizations have to play an important role in leading their organizations towards achieving their objectives. In terms of organizational objectives, public and private organizations are driven by financial and non-financial, and tangible and intangible perspectives. Moreover public organizations serve the public at large on behalf of the ruling government. Further, public servants are also measured on their performance. Alimo-Metcalfe and Lawler (2001) state that public sector organizations have turned to the private sector to seek lessons in developing expertise. Lawton (2005) notes the importance of leadership in public organizations as they are forced to become more business-like, with the introduction of competition, output measures and corporate management styles.

2.2   Leadership

Leadership is an art that is difficult to learn and to define (Cullen, 1999). Extensive reviews on leadership focus on leadership styles, leadership skills and leadership traits (Altinas & Altinas, 2008; Boyd, 2008; Parish, Cadwallader & Busch, 2008; Jones, 2008; McPherson, 2008; Konu & Viitanen, 2008; Fugazzotto, 2009; Daniels, 2009; Tiffan, 2009). Reviews also indicate extensive concentration on two leadership styles: transactional and transformational (Alimo-Metcalfe & Alban-Metcalfe, 2001; MacKenzie, Podsakoff & Rich, 2001; Parry, 2003; Boehnke, Bontis, DiStefano & DiStefano, 2003; Bass, 2003; Walumbwa, Lawler, Avolio, Wang & Shi, 2005a; Vigoda-Gadot, 2007; Powell, Butterfield & Bartol, 2008; Pastor & Mayo, 2008; Trim & Lee, 2008; Erkutlu, 2008; McLaurin & Mitias, 2008; Walumbwa, Avolio & Zhu, 2008; Bolman & Deal, 2008).

In an organization, the term leader is used to refer to any person who has subordinates at any organizational level (Viitala, 2004). The term leader also refers to "the social influence of authority figures and can be defined as someone who accompanies, rules, guides or inspires other on their journey and steers them in the right direction" (Taylor, Peplau & Sears, 2006 in Koen & Bitzer, 2010, p.1). As such, leadership is an important element for managers because they must lead their subordinates. Leadership is vital in achieving a re-organization of objectives or to instigate organizational change (Askling & Stensaker, 2002).

Leadership is measured through the performance of managers in leading and managing the organization. Recently leadership has become the watchword for managers in public organizations (Pedersen & Hartley, 2008). Alimo-Metcalfe and Lawler (2001, p.392) state that leadership has "no single, robust definition within UK organizations today; there are only fractured and partial definitions". Nevertheless, scholars define leadership according to the context. In general, leadership is considered as the ability of a person to manage and lead others toward achieving organizational objectives. Kekale (2003) defines leadership as an orientation toward human relations and organizing people; the person-in-charge often has the tendency to stress either leadership or management functions and behaviour in their work. Leadership focuses on creating change and dealing with complexity with the aim of meeting specific organizational needs (Conger & Benjamin, 1999; Alimo-Metcalfe & Lawler, 2001). Further, Sumner-Armstrong, Newcombe and Martin (2008, p.843) claim that "leadership is an integral

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part of organizations and has been strongly linked to performance, organizational effectiveness and employee attitudes."

Leadership is a personal commitment to make a difference in the lives of others. Leadership involves inspiration, motivation, aspiration, relationship building, and creative change (Brown, 2001). Wart (2004, p.192) states "traits and skills provide the reservoir of talent, and styles provide the approach to the leadership task." Scholars perceive leadership motivation as an independent component that contributes towards leadership. In this study, leadership motivation will be considered as part of leadership traits. There are several components that form leadership. These components include leadership style, leadership traits and leadership skills. Vigoda-Gadot (2007) examines organizational politics as a mediating factor, although past studies consider it an antecedent, between leadership and performance. The result is that it can indirectly influence leadership towards performance. In general, elements of leadership can be discerned as leadership styles (Wart, 2004), leadership skills and leadership traits.

2.3   Elements of Leadership

2.3.1   Leadership Styles

In reviews of leadership styles, the three leadership styles most frequently identified are laissez-faire (Gardner & Stough, 2002; As-Sadeq & Khoury, 2006; Limsila & Ogunlana, 2008; Wu, 2009; Eid, Jonsen, Bartone & Nissesstad, 2008; Xirasagar, 2008), transactional (Burns, 1978; Pounder, 2001 & 2008; Jogulu & Wood, 2008; Xirasagar, 2008; Limsila & Ogunlana, 2008; Wu, 2009) and transformational (Burns, 1978; Avolio & Bass, 1991; Fairholm, 1991; Stevens, D'Intino & Victor, 1995; Lowe, Kroeck & Sivasubrahmaniam, 1996; Pounder, 2001 & 2008; Castiglione, 2006; Jogulu & Wood, 2008; Albulushi & Hussain, 2008; Limsila & Ogunlana, 2008; Xirasagar, 2008). These leadership styles are practiced in public and private organizations.

Firstly, a laissez-faire style is where a leader does not intervene in the work of subordinates (Gardner & Stough, 2002; Vigoda-Gadot, 2007; Limsila & Ogunlana, 2008; Eid et al., 2008; Xirasagar, 2008; Wu, 2009). Laissez-faire leaders avoid the responsibilities of a superior and are unlikely to put effort into building relationships with subordinates. Further, this style of leadership is associated with dissatisfaction, unproductiveness and ineffectiveness. These are leaders with low educational background and low previous managerial experience (As-Sadeq & Khoury, 2006).

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Secondly, transactional leadership focuses on the physical and security needs of subordinates. The relationship between leaders and subordinates is based on bargaining: exchange or reward systems (Limsila & Ogunlana, 2008). These relationships involve contingent reinforcement during which followers are motivated by the promises, rewards and praise of their leaders (Burns, 1978). This type of leadership appeals to the self-interests of employees, and is associated with power and influence. Jogulu and Wood (2008, p.602) describe transactional leaders as "people who emphasize work standards, they are task oriented, and they adhere to the present organizational rules and regulations."

Finally, a transformational style encourages subordinates to put in extra effort and to go beyond previous expectations. Under transformational leadership subordinates are motivated to perform extra-role behaviours because they feel trust, admiration, loyalty and respect towards leaders (Limsila & Ogunlana, 2008). Jogulu and Wood (2008, p.602) conclude that "transformational leaders are people with inspirational values, they are nurturing, they foster self-worth and self-confidence, they are caring and display consideration towards their followers. They are able to identify prospects in their followers and then encourage and motivate them to develop to their fullest potential." Hence, they achieve personal and organizational goals, influence the expectations of subordinates, change their beliefs and values, and raise their hierarchy of needs (Vigoda-Gadot, 2007). Transformational leadership is more effective, productive, innovative, and satisfying to followers as both parties work towards the good of the organization propelled by shared visions and values as well as mutual trust and respect (Burns, 1978; Avolio & Bass, 1991; Fairholm, 1991; Stevens et al., 1995; Lowe et al., 1996). Further, transformational leadership is associated with effective leadership and the vision required for long-term direction and planning capacity (Jogulu & Wood, 2008).

In summary, leadership styles have been studied extensively by scholars. There are a handful of leadership studies conducted using qualitative data and case studies. Most research designs use survey questionnaires such as the Multifactor Leadership Questionnaire (MLQ), the Q-Sort Procedures and the Leadership Behaviour Development Questionnaire-Form XII (LBDQ-XII). Most research designs are based on quantitative data such as leadership studies on ethnic groups (Selvarajah & Meyer, 2008), knowledge sharing (Huang, Davidson, Liu & Gu, 2008), resistance to change

(Chen & Chen, 2008), behaviour (Vbra, 2007), global leadership (Murphy, 2006), nursing director (Chen & Baron, 2006), female senior managers (Downey et al., 2006), individual leadership (Anderson, Plotnikoff, Raine & Barrett, 2005), senior level managers (Gardner & Stough, 2002), district director (Healy, Ehrich, Hansford & Steward, 2001), college presidents (Neumann & Neumann, 1999) and department chair (Gomez & Knowles, 1999). In a case study, Ng and Walker (2008) study leadership and project life cycle stages. For this study, the research design and methodology will be discussed further in the following chapter.

2.3.2 Leadership Traits

Reviews on leadership traits suggest that traits are determined by individual characteristics (Nahavandi, 2009). Traits are characteristics that are primarily inherent and become a part of one's personality (Wart, 2004). The individual traits that incline an individual towards leadership are self-confidence, decisiveness, resilience, flexibility, energy and willingness to assume responsibility. Fox and Mohapatra (2007) state characteristics of the individual might also be an important determinant of productivity. In another view, leadership traits comprise vision, organization, integrity, communication and execution (Daniel, 2006).

Thach and Thompson (2007) interviewed leaders in non-profit and government organizations, and for-profit industry organizations on the most important competencies of leaders. The competencies identified were honesty and integrity, team player, developing others, adaptability, self-confidence, positive outlook, conflict management, customer service, strategic thinking, time management, self-knowledge of strengths and weaknesses, emotional self-control, being inspirational, employee performance management, initiative and achievement orientation, being visionary, influence skills, stress management, empathy towards others, political and organizational awareness, marketing and sales, being an agent for change, and accounting and finance. The top three leadership skills ranked by public/non-profit and for-profit leaders are honesty and integrity, being collaborative and developing others (Thach & Thompson, 2007). Mullins and Linehan (2006) highlight that leadership traits include creativity, sense of humour, energy, outgoing nature, self-motivation, evidence of initiative and resourcefulness, being strategic, politically skilled, having endurance, taking reasonable risks, skilled in communication, direction-setting and self-motivating. In this context,

competencies of leaders are based on their ability to do something and further can be measured against a standard.

The US Marines identify leadership traits as knowledge, courage, initiative, judgment, decisiveness, endurance, integrity, loyalty, dependability, tact, justice, enthusiasm, unselfishness, bearing, vision, political will, and spirituality and belief in God (Espiritu, 2009). Puffer (1994) identifies leadership traits among Russian managers as leadership motivation*, drive, honesty and integrity, and self-confidence. Kirkpatrick and Locke (1991) cite leadership traits as drive (which includes achievement motivation, ambition, energy, tenacity, and initiative), leadership motivation*, honesty and integrity, self-confidence, cognitive ability, and knowledge of the business.

Studies on leadership traits are associated with motivation (Kirkpatrick & Locke, 1991; Puffer et al., 1994; Mullins & Linehan, 2006), ambition (Kirkpatrick & Locke, 1991); honesty and integrity (Kirkpatrick & Locke, 1991; Puffer et al., 1994; Wart, 2004; Daniel, 2006; Thack & Thomspn, 2007; Hind, Wilson & Lenssen, 2009), self-confidence (Kirkpatrick & Locke, 1991; Puffer et al., 1994; Wart, 2004; Thach & Thompson, 2007), cognitive ability (Kirkpatrick & Locke, 1991), decisiveness (Wart, 2004; Espiritu, 2009; Hind et al., 2009); resilience (Wart, 2004; Hind et al., 2009), flexibility (Wart, 2004; Thach & Thompson, 2007; Hind et al., 2009), fairness (Wart, 2004); aptitude (Wart, 2004), intelligence (Wart, 2004), verbal fluency (Wart, 2004; Daniel, 2006; Hind et al., 2009), creativity (Wart, 2004; Mullins & Linehan, 2006; Hind et at., 2009), courage (Hind et al., 2009; Espiritu, 2009), initiative (Espiritu, 2009), judgment (Espiritu, 2009), endurance (Espiritu, 2009), loyalty (Espiritu, 2009), dependability (Espiritu, 2009), tact (Espiritu, 2009), justice (Espiritu, 2009), enthusiasm (Espiritu, 2009), unselfishness (Hind et al., 2009; Espiritu, 2009), bearing (Espiritu, 2009), vision (Hind et al., 2009; Espiritu, 2009), political will (Espiritu, 2009), spirituality (Espiritu, 2009), commitment (Hind et al., 2009), challenge of unethical behaviour (Hind et al., 2009), being a team player (Tach & Thompson, 2007), developing others (Tach & Thompson, 2007) and having a positive outlook (Tach & Thompson, 2007). These studies on leadership traits are undertaken empirically through interview and questionnaire. Some studies elaborate on the conceptual in relation to theory development.

2.3.3 Leadership Skills

The literature on leadership skills suggests these can be developed (Lewis & Murphy, 2008). Leadership skills can be learned and taught through education and training (Wart, 2004). Leadership skills are also referred to as the leaders' ability, talent, expertise and proficiency. Wart (2004) and Rausch (2005) refer to leadership skills as technical skills, communication skills, influence and negotiation skills, and the skill of continual learning, setting goals effectively, empowering staff or team members, authority delegation, paying attention to the needs of staff members and associates, supporting staff members and associates when they need support, applying psychological and tangible rewards as is warranted and possible, ensuring appropriate norms (ethical and order) and providing performance feedback. Meanwhile, Hind et al. (2009) list the skills that constitute responsible business behaviour such as well-founded and balanced judgment, critical thinking, team player, creativity, innovation and original thinking, communicating with credibility, business acumen, listening skills, managing stakeholder network relationships, and emotional intelligence. Further, Brymer and Gray (2006) state that the essentials for effective leadership are empathy, care, acceptance, trustworthiness, compassion, creativity, and the desire to encourage and not judge.

In the work of Zabkar and Hosta (2009) on marketers, the list of necessary skills includes leadership skills, strong organizational skills, oral communication skills, written communication skills, ability to think strategically, problem-solving ability, negotiation skills, independent judgment, ability to be creative, skills to implement change, customer service focus, multi-disciplinary perspective, analytical skills, flexibility and adaptability, awareness of ethical issues, strong interpersonal skills, wide awareness and understanding of business, ability to work under pressure, planning skills, and sales management skills.

Studies on leadership skills are undertaken relating by various scholars such as technical (Wart, 2004), communication (Wart, 2004; Rausch, 2005; Mullins & Linehan, 2006; Zabkar & Hosta, 2009; Hind et al., 2009), negotiation (Wart, 2004; Zabkar & Hosta, 2009), learning (Wart, 2004), goal setting (Rausch, 2005), staff development (Rausch, 2005), decision making participation (Rausch, 2005), authority delegation (Rausch, 2005), staff support (Rausch, 2005), performance feedback (Rausch, 2005), balance judgment (Hind et al., 2009), critical thinking (Hind et al., 2009), being a team

player (Hind et al., 2009; Curran, Niedergassel, Picker & Leker, 2009), creative (Brymer & Gray, 2006; Hind et al., 2009; Zabkar & Hosta, 2009), innovation (Hind et al., 2009), business acumen (Hind et al., 2009; Zabkar & Hosta, 2009), empathy (Brymer & Gray, 2009), care (Brymer & Gray, 2009), acceptance (Brymer & Gray, 2009), trustworthiness (Brymer & Gray, 2009), compassion (Brymer & Gray, 2009), encouragement (Brymer & Gray, 2009), interpersonal (Zabkar & Hosta, 2009) and analytical (Zabkar & Hosta, 2009). This shows that leadership skills are considered important among scholars in leadership studies.

2.4 Leadership in Organizations

This section gives an overview of leadership in private and public organizations. Scholars have concentrated mainly on private rather than public organizations because they give measurable and quantifiable means to measure the impact of leadership on performance. Further, scholars use financial indicators as a link between leadership and performance. Conversely, public organizations have received insufficient attention from scholars. The result of performance is difficult to measure and quantify because public organizations involve the feelings and emotional states of mind of citizens generally. A study by Siddique, Aslam, Khan and Fatima (2011) states academic institutes are very different from manufacturing and other organizations (whether public or private).

2.4.1 Leadership in Private Organizations

Private organizations that are result oriented concentrate on the profits and end-results of their business. Thus, leadership in private organizations has been the focus of most scholars (Altinas & Altinas, 2008; Boyd, 2008; Parish et al., 2008; Jones, 2008; McPherson, 2008; Konu & Viitanen, 2008; McPherson, 2008; Jones, 2008; Parish et al., 2008; Fugazzotto, 2009; Daniels, 2009; Tiffan, 2009). Most studies on leadership in private organizations focus on leadership excellence (Paradise-Tornow, 1991; Reichwald, Seibert & Moslein, 2005; Clark, 2007; Harris, Ogbonna & Goode, 2008; Borg, Braun & Baumgartner, 2008; McLaurin, 2008; Houldsworth & Machin, 2008; Kennedy, 2009), leadership effectiveness (Thompson, Anitsal & Barrett, 2008; Evans & Richardson, 2008; Weston, Galter, Lamd & Mahon, 2008; McLaurin & Mitias, 2008; Fleming, 2008; Ismail & Ford, 2008; Hamlin & Serventi, 2008; Caveleri & Reed, 2008; Rajagopal, 2008; Parmer, 2008; Samad, 2009), leadership development (Burrell, 2007; Watson & Vasilieya, 2007; Hayes, 2007; Turner, 2007/2008; Thomas, 2008; Szumski, Mitchell & Schaeffer, 2008; McAlearney & Butler, 2008; Bailey & Clarke, 2008;

Clarke, Bailey & Burr, 2008; Allio, 2009; Swearingen, 2009), leadership empowerment (Arnold, Arad, Roades & Drasgow, 2000; Wallick & Stager, 2002), and leadership in relation to women managers (Cormier, 2007; Altinas & Altinas, 2008; Jogulu & Wood, 2008; Wallace & Marchant, 2009). These scholars stated that leadership in private organizations are widely explored and examined.

2.4.2   Leadership in Public Organizations

Public organizations, on the other hand, are different as compared to private organizations. A public organization might be a government organization, an organization charged with operating in the public interest, or one with goods and services having public goods characteristics (Bozeman & Bretschneider, 1994).

Studies of leadership on public organizations are few as compared to studies on private organizations. In public organizations, most reviews elaborate on management leadership styles such as transactional and transformational (Hind et al, 2009; Alimo-Metcalfe & Alban-Metcalfe, 2001). Further, Vigoda-Gadot (2007) conceptualizes transformational leadership and transactional leadership with in-role performance and organizational citizenship behaviour with the mediating factor of organizational politics in Israeli public organizations. It is also argued that charismatic leadership is more prevalent in public organizations (Lowe et al., 1996; Javidan & Waldman, 2003).

Puffer (1994) carried out studies on Russian managers in order to explore how the traits that made managers successful under communism could be compared with those that are needed in the nascent market economy. The traits identified are leadership motivation, drive, honesty and integrity, and self-confidence. Moreover, Daniel (2006) indicates that the leadership traits required are vision (see the endgame; bigger picture, develop three-to-five-year plan), organization (pull a team together), integrity (keeps the vessel intact; rowing in the same direction), communication (bringing their team to action and convincing them), and execution (putting the plan into action). Turner (2007/2008) identifies the individual personality and strengths needed in developing executive leadership in the public sector. These include self-knowledge, personal accountability, strategy setting, engaging others and harnessing insights.

Further, in public organizations, various studies have been undertaken by scholars such as tacit knowledge (Rowe & Christie, 2008), leadership abilities and success (Kouzes &

Posner, 1990), and leadership development and skills (Rausch, 2005; Schraeder, Tears & Jordan, 2005). Additionally, Andolsen (2008) indicates the need to set standards and establish discipline, the need to foster team spirit, the need to encourage and to motivate, the need to delegate, the need to communicate, and the need to train as ingredients for leadership in public organizations. Leadership in public organizations is studied on transactional and transformational leadership (Alimo-Metcalfe & Alban-Metcalfe, 2001; Vigoda-Gadot, 2007; Hind et al., 2009), charismatic leadership (Lowe et al., 1996; Javidan & Waldman, 2003), high-performance enterprise (Breul, 2009), effective leader (Puffer, 1994), leadership traits (Daniel, 2006), executive development (Turner, 2007/2008), tacit knowledge (Rowe & Christie, 2008), leadership abilities and success (Kouzes & Posner, 1990), leadership development and skills (Rausch, 2005; Schraeder et al., 2005), and ingredients for leadership (Andolsen, 2008).

In summary, a comparison between leadership in private and public organizations can be made according to scholars' studies in those areas. In private organizations, scholars are examining the leadership in terms of development and advancement of leadership practices among managers. Further, they are also keen on the empowerment among managers on issues of leadership. On the other hand in public organizations, scholars are putting their interests on exploring the unchartered areas of leadership among public managers. Thus scholars are looking into areas such as leadership abilities, transfer knowledge and skills development.

2.4.3 Leadership in a University

Higher education institutions are based on a strong departmental model. The departmental structure is further reinforced by the fact that tenure and promotion decisions for faculty are initiated by the departments, and these departments compete with each other for university resources (Sirvanci, 2004). Further, administrators of academic departments are considered by many experts to be indispensable to the effectiveness of post-secondary institutions (Jones & Holdaway, 1996). As such, academic positions are important in a university. Thus, leadership is highly regarded in this context. Rowley and Sherman (2003) draw attention to the issue of matching organizational needs with human resource capabilities in a university. Further, the success of higher education institutions is dependent on effective and competent leaders (Bisbee, 2007). In the reviews, several different terminologies are used such as higher

education institutions, colleges and universities; and they will be used interchangeably. But in general the term universities will be used.

Faculty members will be the focus of this study. Leadership in higher education involves a relationship or a followership (Koen & Bitzer, 2010). Jones and Holdaway (1996) reveal the difficulties they faced when juggling the administrative, political and entrepreneurial components of their position. These faculty administrators need a broad array of sophisticated managerial skills and the attributes of academic leadership. In a similar vein, Kekale (2003) states that management and leadership have become necessary for academic leadership due to political and economic pressures, the increasing size and scope of university business, and increased demand for accountability. The additional challenges facing academic leaders include leading institutional renewal, attracting and retaining top quality faculty, staff, and students, embracing learning technologies, meeting increasing demands from the public, funding agencies, employers, students and university employees, and seeking new and alternate sources of funds and financial models. Thus there is a need for academic leaders who thrive on the challenge of change, who foster environments of innovation, who encourage trust and learning, and who can lead themselves, their constituents, and their units, departments and universities successfully into the future (Brown, 2001).

Kekale (2003) describes academic leaders metaphorically as thermostats: he/she does not have to control or direct everything, but instead must concentrate on promoting the most important strategic issues. During normal times, the leader supports basic work conditions, maintains a creative working atmosphere and tries to keep things in a proper balance and within the range of normal operational conditions. The leader may have to contribute more actively to the process by providing support, advice or more direct leadership during serious problems (Hersey & Blanchard, 1982; Birnbaum, 1989; Kekale 2003).

Reflecting on the work by Rowley and Sherman (2003), they indicate the working frame of faculty members in a university and in a faculty/school. They state that academic leadership at a university can be viewed from the perspective of leadership levels and leadership settings. The leadership levels consist of leadership positions such as department chairs, deans, and vice chancellor/deputy vice chancellors. Leadership settings consist of administrative departments, academic departments, student and

faculty organization (Rowley & Sherman, 2003). Further, they link the academic levels and academic settings where department chairs lead academic departments, deans lead faculty organizations, and vice chancellor/deputy vice chancellors lead administrative departments. First, a department chair will be the leader in the department (Rowley & Sherman, 2003; Bisbee, 2007). This leadership is temporary because the faculty member serves for few years. They will return to their regular teaching and research duties as a regular member of the faculty. The person does not feel as though he/she is leaving the faculty; instead, he/she is taking the additional managerial responsibilities only for a short time period. Unfortunately, the person who is responsible for providing leadership is not necessarily willing to be a leader. Further, he/she knows that leadership must be highly collegial or it will be very difficult to return to a faculty position once the time ends. Most department chairs do not aspire to become department chairs, nor do they consider successful management and leadership part of their career paths (Brown, 2001). Further, Brown claims that department chairs traditionally complain about management's rejection of collegiality, being burdened with administrative tasks and having valuable time taken from their academic work, and being subject to increasingly intrusive assessment processes. In academic departments, leadership is required for both administrative and academic functions. Faculty members placed in these roles do not necessarily aspire to managerial or leadership positions, especially for department chairs. Rowley and Sherman (2003) note that many faculty members, thus, end up in both managerial and leadership roles without ever having aspired to them. This creates the unique challenge of leadership in the university. They also note that all faculty members who have management responsibilities need to have a clear understanding of their leadership roles and responsibilities and to step up to the challenges they face to help the campus and to progress toward mission fulfilment.

Second, the dean is also a faculty member but one who is willing to give up teaching and research responsibilities to become a full-time administrator. Most deans return to the faculty when their terms in office have expired. In the dean's job leadership is complicated by the desire to lead the school or college to new levels of accomplishment and excellence while keeping in mind he/she will return to the faculty. Here, the dean's leadership is more managerial and professional and similar to that of managers in business organizations.

Finally, the vice chancellor (also deputy vice chancellor) is also a previous faculty member. He/she may have entered the deanship and later moved up into the top administrative position in the university. Some top administrators go on to other universities to pursue higher levels of responsibility and authority. But, there are some top administrators who return to the faculty at the end of their term of office. In the administrative departments, administrators (such as vice chancellors and deputy vice chancellors and deans) are the top rank of the campus administration. They lead the university towards higher goals and accomplishments (Rowley & Sherman, 2003).

Nevertheless, basic faculty members have some responsibilities that involve a degree of management and leadership (Rowley & Sherman, 2003). These responsibilities are reflected in their own classroom such as managing their classroom and even guiding students and helping them in their learning. Further, faculty members may also have responsibilities in a group of research projects. Faculty members often assume leadership roles in their respective functions and as members of teams or projects (Dryer, 1977; Rowley & Sherman, 2003). Further, the role of the academic leader is very different from that of regular faculty members even though faculty members are often asked to serve in these capacities.

Some faculty members are not interested in holding any academic administrative positions. Due to the nature of academia faculty members are rewarded for efficiency and effectiveness in their disciplines and not for taking and excelling in leadership roles (Bisbee, 2007). This causes challenges for universities when identifying faculty members who are willing to accept the responsibility of leadership roles to serve and be involved in meaningful change (Rowley & Sherman, 2003) to their department, faculty and university.

2.4.4   Leadership Structure of a Malaysian Public University

All public universities in Malaysia are governed by the Ministry of Higher Education (MOHE). Politically, a Minister of Higher Education is appointed to oversee the operations of higher education institutions in Malaysia. MOHE also monitors other higher education institutions such as private universities, public and private university colleges, technical colleges and community colleges. The Minister is assisted by two Deputy Ministers. In the executive committee of MOHE, there are two Deputy Secretary Generals and two Director Generals.

The position of the public university's Chancellor is occupied by a Ruler or a King of a State in Malaysia. The Chancellor is assisted by two Pro Chancellors. Administratively, the university is governed by the university's executive committee consisting of a Vice Chancellor and four assistant Deputy Vice Chancellors: A Deputy Vice Chancellor of Academic Affairs and International, a Deputy Vice Chancellor of Research and Innovation, a Deputy Vice Chancellor of Industrial Network and Community, and a Deputy Vice Chancellor of Student Affairs. At the faculty or school levels, it is administered by a Dean who is assisted by two Deputy Deans: a Dean of Graduate Studies and Research, and a Dean of Academic and Student Development. However, at certain faculties or schools, there are an additional one or two Deputy Deans depending on the requirement. Following suit, the Department Chairs will head each department in the faculty or school. There are also centres in a university and these centres are headed by a Director and assisted by an Assistant Director.

What makes the appointment of the Vice Chancellor to the Department Chair unique is the fact that they are internally nurtured leaders within the public university. It is very rare for a public university to have an outsider from other public higher institutions or government organizations to head a university. Further, these appointments are for a three-year term, although most incumbents will be reappointed by the Vice Chancellor in order to resume their positions, especially the dean of a faculty or school, and the director of a centre.

Faculty administrators in the university could be positioned by faculty members who have the rank of professor, associate professor, senior lecturer or lecturer. The position of vice chancellor, deputy vice chancellor and dean are specifically headed by a professor or an associate professor. The post of deputy dean is headed by an associate professor or a senior lecturer. And the post of department head is usually headed by a senior lecturer or a lecturer, but in some cases it may be headed by an associate professor. The positions of director and assistant director of a centre are headed by a professor or an associate professor.

2.5   Academic Leadership and Leadership in Higher Education

Interestingly in the work of Spendlove (2007) on competencies for effective leadership in higher education, the Pro Vice Chancellor, Rector and Principal of a university state their leadership as equated to academic leadership. Thus terminologically, Spendlove's

work discovers no differences between academic leadership and leadership in higher education from the perspective of universities' top management.

Several studies also equate, or seem to equate, the term academic leadership with leaders in higher education institutions. Ervay (2006) studies academic leadership in America's public schools and defines those who regularly lead decision-making and action-taking processes in curriculum, instruction, and assessment of student learning as academic leaders. Askling and Stansaker (2002) state academic leadership by seeing leadership as a process of social interaction guiding individuals and groups towards particular goals. Meanwhile, Henkel (2002) indicates emerging concepts of academic leadership and their implications for intra-institutional roles and relationships in higher education requires that deans and heads of department must be both academics and managers and out of the tensions or conflicts inherent in that belief: between individual and collective concerns, hierarchy and community, control and support, change and continuity.

2.5.1 Leadership in Higher Education

It should be noted that higher education leadership is dynamic, complex and multidimensional (Filan & Seagren, 2003 in Koen & Bitzer, 2010). As such, "no consensus has, as yet, been reached on the exact characteristics of a successful leader in higher education" (Buller, 2006 in Koen & Bitzer, 2010, p.1).

Reviews on leadership in higher education indicate various definitions toward leadership in higher education. Bolden, Petrov and Gosling (2009) state that leadership in higher education is 'agreeing strategic direction in discussion with others and communicating this within the organization; ensuring that there is the capability, capacity and resources to deliver planned strategic outcomes; and supporting and monitoring delivery'. Further, leadership in universities is widely distributed or should be distributed across the institution. Most universities' members of the senior/middle management team have well defined portfolios and responsibilities, and in this sense the formal responsibilities are perceived to be distributed among team members. Spendlove (2007) defines leadership as a process of influence leading to the achievement of the desired purpose. Taylor and Machado (2006) state leadership is more often viewed as an interpersonal process of inspiring and motivating followers with a focus on long term institutional aspirations and changes. Bennett (2003) defines leadership in terms of

individualistic values and mythologies of seeing the leader in terms of the individualistic, heroic cowboy of the Western film and novel. Meanwhile, Miliken (1998) states a good leader in higher education is one who can induce change through democratic consensus, obtaining very good results from his or her collaborators while maintaining consistently high morale and a feeling of individual accomplishment.

Lo, Ramayah and De Run (2009) identify leadership styles in Malaysian universities which are transactional and transformational. In a similar vein, Nicholson (2007) states that academic leadership that is transactional and transformational in style is linked with successful fund raising; and through identification of unique behaviours and characteristics of leaders. Yanez (2004) indicates that academic leadership can emulate the behaviour patterns that lead to effective leadership. Similarly, Brown (2001) states effective leaders develop both managerial and leadership behaviours and qualities. Bisbee (2007) states higher education institutions need competent, effective academic leaders. Bisbee adds "the continued success of higher education institutions depends on key positions at all levels being staffed with effective, competent leaders" (Gaither, 2002 in Bisbee, 2007, p.77).

Moreover, the work of Davies (2003) and Davies and Davies (2005) on schools in the UK can be applied to leadership in public universities. Davies and Davies (2005) elaborate the leadership characteristics that shape the direction of the organization such as dissatisfaction or restlessness with the present, priority given to one's own strategic thinking, displaying strategic wisdom, the existence of a powerful personal and professional network and high-quality personal and interpersonal skills. While working on strategic thinking in schools, Davies (2003) elaborates the personal characteristics of strategic leaders. A strategic leader is someone whose characteristics include an ability to see the future or the bigger picture, a dissatisfaction or restlessness with the present, an ability to strategically map the future state and dimensions of the organization, the ability to define the key moment for strategic change in organizations, the ability to translate strategy into action through a strategic process, a belief that strategy is about the creation of meaning, access to a powerful professional and organizational learning network, absorptive capacity and adaptive capacity and managerial wisdom.

2.5.2 *Academic Leadership*

Based on reviews, academic leadership is defined according to the studies context. McNamara (2009) studies academic leadership in nursing and states that academic leadership is directed towards building meaningful partnerships between clinical and academic settings and providing the conditions of possibility for the development of clinician-educators who operate at the research-practice interface. Meanwhile, Zhao and Ritchie (2007), in their investigation of academic leadership in tourism research, state that academic leadership refers to the superior capability of some tourism scholars to communicate their research works in accredited tourism journals. Strathe and Wilson (2006) claim that faculty members have historically served as the source of academic leadership through their degree programs for teaching, research and scholarship, and service responsibilities. Further, Murphy (2003) states academic leadership is a complex and demanding role with significant stress and high burnout and turnover rates. Askling and Stensaker (2002) refer to academic leadership as a role carried out formally, almost as an obligation. Further, they look at academic leadership by seeing leadership as a process of social interaction guiding individuals and groups towards particular goals. Marshall, Adams, Cameron and Sullivan (2000) term academic leadership as a collection of tasks or functions performed by individuals appointed to formal positions of responsibility within universities (i.e. vice chancellor, dean, and/or head of discipline/department). Meanwhile, Jones and Holdaway (1996) define academic leadership based on activities undertaken by departmental heads, namely programme activities, faculty-related activities and personal academic activities.

In the reviews of academic leadership several issues are raised such as identifying administrative behaviours (Favero, 2005), analyzing the traditional duties of academic administrators (Hancock, 2007), student evaluation of the university top management (Saktivel, 2007), scrutiny of academic leadership (Bisbee, 2007), studies on Mexican academic leadership-based group experience (Yanez, 2004), training programmes for academic management and leadership for academic leaders (Kekale, 2003), effective leadership decisions and practices (Rowley & Sherman, 2003), academic leadership development (Jones & Holdaway, 1996; Brown, 2001), rebuilding academic leadership through identifying the type of faculty members (Piercy, 1999), and the impact of academic leadership on entrepreneurial activities (Rekila, Larimo & Tauriainen, 1999). Results from Hannagan, Lawton and Mallory (2007) reveal that the components affecting academic leadership include changes in funding mechanisms, autonomy,

competition among other academic institutions, teaching staff, centralized decision-making and teamwork.

Academic leadership has not received much coverage in the reviews, especially the issue of identifying leadership approaches in higher education (Favero, 2005). Further, Askling and Stensaker (2002) state that there is much to be gained by studying the practice of leadership in higher education. Koen and Bitzer (2010) highlight the components of academic leadership that they discovered through several interviews with academic leaders. In sum, there is a need for further study on academic leadership in public organizations especially public universities. Academic leadership studies are summarized in Table 2.1.

Table 2.1: Studies on Academic Leadership

Reference(s)	Studies
Koen and Bitzer (2010)	Explore the different perspectives regarding leadership in the 21st century within the context of the university
McNamara (2009)	Explores the potential of a conceptual framework derived from the discipline of the sociology of education for illuminating the concept of academic leadership in the discipline of nursing.
Bikmoradi et al. (2009)	Explore the views on effective academic leadership requirements held by key informants in Iran's medical education system.
Zhao and Ritchie (2007)	A comprehensive investigation of academic leadership in tourism research, as measured by the quantity of articles published.
Nicholson (2007)	Provides presidents and academic leadership with the leaders ' understanding of the unique behaviours and characteristics that are paramount to successful fund raising in the academic arena.
Hancock (2007)	Analyzes traditional duties of academic administrators.
Bisbee (2007)	Discusses how academic leaders are identified in land grant universities, what position they held when they were identified, whether they were internal or external candidates for their position, and how they were selected as potential leaders.
Saktivel (2007)	Investigates students' perceptions of the level of university leaders.
Strathe and Wilson (2006)	Examine the characteristics of effective academic administrators and the pathways to and from an academic administrative position from the faculty member's perspective.
Ervay (2006)	Focuses on the need for improved academic leadership and examine models suggested.
Favero (2005)	Understands how individuals and groups of individuals construct their perceptions of leadership.
Chesterman, Ross-Smith and Peters (2005)	Investigate the impact of the presence of senior women executives on management cultures.
Rosenbloom (2007)	Seeks challenges of identifying, nurturing and providing leadership in the academic environment: commitment, communication and confrontation.
Yanez (2004)	Describes the institutional concept of these so-called "academic leadership groups".
Murphy (2003)	Explores the nature of academic leadership and its reward systems

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	toward what factors motivate individuals to choose academic leadership roles and how these motivations and their outcomes might best be cultivated for the betterment of the leader and the academic institutions he or she serves.
Rowley and Sherman (2003)	The basic leadership issue in academic settings and seek to suggest approaches for leadership decisions that can bring the most desirable climate throughout the campus.
Kekale (2003)	Deals with academic leadership, leadership philosophy and the system of personnel management.
Askling and Stensaker (2002)	Argue on more theoretical terms that academic leadership could be adapted in different ways than emphasised in the new public management framework.
Henkel (2002)	Explores some of the implications for the concept of academic leadership in the universities, in particular the extent to which it yielded to the prevailing ideology of management.
Warters, Katz, Szmuk, Luehr, Pivalizza, Koch, Price and Ezri (2002)	Determine if the criteria for chairmanship of American academic anaesthesiology departments have changed in light of the evolving health care environments.
Brown (2001)	Academic leadership development.
Marshall et al. (2000)	Clarify what senior colleagues mean by "academic leadership" when asked to design a program to develop academic leaders in their university.
Rekila et al. (1999)	Academic leadership impacts on entrepreneurial activities.
Piercy (1999)	Rebuilding the academic leadership.
Jones and Holdaway (1996)	Examine expectations for academic leadership of, and sharing of, authority by departmental heads in a community college, a technical institute, and a university.
Gmelch and Burns (1993)	Focus on stresses associated with the role of department chair.
Blackburn and Gerber (1974)	Report findings which introduce cautions with regard to utilizing outside experts as an independent measure of academic leadership and/or institutional quality is a potentially effective technique.

2.5.3 Summary

In the reviews on academic leadership and leadership in higher education, participants in Spendlove's (2007) studies equate the terms of academic leadership and leadership in higher education. Moreover some articles use academic leadership as the title but the article flows on leadership in higher education (Askling & Stensaker, 2002; Miliken, 1998) and vice-versa (Ervay, 2006; Nicholson, 2007; Hancock, 2007).

Historically, the term academic leadership was coined in the 70s in the work of Blackburn and Gerber (1974). In their study, they caution the university in employing outsiders as independent experts in measuring the academic leadership and/or institutional quality. They associate academic leadership with the measure of academic freedom with regards to research, publications, teaching, citizen rights and continuous employment. Meanwhile the studies on leadership in higher education have been explored since 1988 by Deluga. Deluga (1988) investigates the political nature of leadership by examining the association of the task-people leadership approach with strategies used by subordinates to influence their superiors.

Spendlove's (2007) study equates the terms of academic leadership and leadership in higher education, but this study foresees the possibility of differentiating between those terms. Most studies on leadership in higher education talk about the behaviour or leadership style of the leader according to the perceptions of others and their subordinates. In the context of leadership in higher education, the person holds an administrative position in the university. Further, in the studies, leadership in higher education concentrates on how others look at or examine the leader. Moreover, some studies are based on subordinates' perceptions toward the leader in a university. Thus, leadership in higher education can be summarized where leaders hold administrative positions.

On the other hand, some studies on academic leadership are based on faculty members' perceptions and explanations about themselves to others. In the context of academic leadership, faculty members need not hold any administrative positions at the university. Faculty members are considered as academic leaders, not because they hold a position (Marshall et al., 2000). Further, faculty members historically served as the source of academic leadership (Strathe & Wilson, 2006).

This study takes the position that academic leadership can be differentiated from leadership in higher education. Academic leadership, in this study, is concerned with faculty members' attributes. Thus, the attributes of academic leadership are explored from inside-to-outside from the individual faculty members. This study allows faculty members to think, self-portrait, self-report and self-reflect on their own academic leadership. Further, with this study's stand on academic leadership, it takes a bold step toward the differentiation between academic leadership and leadership in higher education.

In this study, an academic leadership definition is derived from the compilation and summarization between scholars' definitions of academic leadership and leadership in higher education. Thus, the study's definition of academic leadership is a person - faculty member - who has a formal position, professional autonomy and discipline scholarship; who has strategic directions and is competent in teaching, research, community of practice, innovation, teamwork and focuses on students; who can influence, inspire, motivate and transform – all these not just to him- or her-self but to other people, colleagues and students.

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2.6   Academic Leadership and Individual Leadership

Academic leadership (in a university) and individual leadership (in public and private organizations) are similar in their leadership functions. They each involve five primary functions: planning, organizing, commanding, coordinating, and controlling (Rausch, 2005). Rowley and Sherman (2003) state that to be a leader in academic leadership needs planning, organizing and implementing. Leadership components in universities, public organizations and private organizations can be defined as styles, skills and traits. Academic leadership requires managers to achieve goals and objectives in the interests of the university.

In public or private organizations, managers tend towards achieving and meeting the objectives and goals of the organization. In private organizations, it is obvious that managers are guided towards achieving deadlines such as profit and loss, market share, and earnings per share to name but a few. Managers in public organizations must meet the needs and wants of the public and of the ruling government. Public organizations are the arms of the government reaching out towards the public. Moreover, public and private organizations are prone to favour transactional and transformational leadership as practiced in both organizations. The literature review shows that transformational leadership has gained the most attention from managers in public and private organizations. Transformational leadership is highly regarded as it involves leading, motivating and changing the course of the organization.

Meanwhile in academic leadership, both transactional and transformational leadership have gained similar attention. In academic leadership, the faculty member needs to meet targets and achievements in the context of a university. The faculty achievements of a university are gauged in terms of numbers of publications in reputable journals, hosting conferences, obtaining research grants and consultations, teaching and supervision of students, and the provision of public services (Yanez, 2004). In summary, Wong (2005) states that the traditional mission of a university or college concerns teaching, research and service.

2.7   Academic Leadership Conceptualization

In conceptualization of academic leadership, this study uses review of literature from private and public organizations (Alimo-Metcalfe & Alban-Metcalfe, 2001; Javidan & Waldman, 2003), and institutions of higher learning (Rowley & Sherman, 2003; Koen

& Bitzer, 2010). According to Koen and Bitzer (2010), academic leadership is constructed by vision, adaptable to change, competencies, effective leadership and transformational style. Meanwhile, Alimo-Metcalfe and Alban-Metcalfe (2001), and Javidan and Waldman (2003) perceive charisma has an impact on leadership. Rowley and Sherman (2003) conceptualize leadership in higher learning where a leader should think of the impact of a decision on enhancing trust, respect, teamwork, good union relations and smooth relations with administrative departments, when making decisions affecting any of the stakeholders. Randall and Coakley (2007) conceptualize that the university must be able to manage equally competing needs from the current market place, have a focus on transactional leadership, transformational leadership, or a combination of both. Further, Randall and Coakley (2007) suggest adaptive leadership to be conceptualized in the higher learning institutions' leadership.

This section conceptualizes academic leadership as formed by vision, being adaptable to change, competency, effective leadership, transformational style and charisma. The conceptualization is in the context of the faculty members in the public university. Further, the academic leadership constructs are examined from the perspective of faculty members as individuals.

2.7.1 Visionary

As a leader a person needs to be a visionary. A visionary is a person thinking about the future with imagination or wisdom (Oxford English Dictionary, 2010). Faculty members need visionary leadership to lead their universities. In the context of globalization, faculty members in the university need to foresee the challenges and opportunities ahead of them. These opportunities must be capitalized and challenges must be minimized. McLaurin (2008, p.4) indicates that "effective leaders have a clear and definitive vision as to what performance ought to be and how it can be enhanced to reach that target. This vision has to be communicated to the personnel to help them achieve success." A leader with visionary thinking would look for the betterment of the persons, groups and organization that they lead. A visionary leader talks optimistically about the future. This person also elaborates what needs to be accomplished. In the context of a university, a leader can be seen as being visionary when he/she acts by promoting the organization's vision by inspiring their follower (Yoeli & Berkovich, 2010). They assert that a leader's personal vision has an important role for developing a shared vision with other faculty members (Yoeli & Berkovich, 2010).

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2.7.2   Adaptable to Change

In facing the challenges of globalization, leadership should manage changes that surround them. Marshall (2007 in Koen & Bitzer, 2010, p.5) states "it is not the strongest of the species that survives, or the most intelligent; it is the one that is most adaptable to change." Leaders in the university context need to be adaptable to change in administering the university towards resistance and challenge. Further, leadership in a university is important in achieving organizational objectives. In order to do so adaptive leadership (Randall & Coakley, 2007) is needed to instigate change as and when required. Further, adaptability of faculty members is associated and caused effective leadership (Hotho et al., 2008).

2.7.3   Competencies

A leader needs to be competent when taking on duties. Competency is examined in the context of how a leader behaves when leading their institution. By definition, competence is having the necessary skills or knowledge to do something successfully (Oxford English Dictionary, 2010). A leader needs to have the required skills or knowledge in his/her leadership to lead an organization.

Similarly, faculty members in the university need the relevant competencies and skills. McLaurin (2008) states faculty members need to be competent, qualified and capable of leading their university. Further, it is also important for them to have a clear understanding of their work requirements. Faculty members must know the competencies and qualifications required for the task ahead of them. Erickson (2006) indicates competent leaders are able to execute the vision of the organization. Their competencies are based on experience, record of success and their ability to get things done. Reported by Hancock (2007), faculty members take the job from some sense of duty, without specific training, and often without any sort of prior administrative experience. This causes faculty members with greater workloads, with research interests falling prey to myriad demands, distractions and reporting requirements. Further, their professional and personal time are both sacrificed and replaced with greater stress (Hancock, 2007).

2.7.4   Effective Leadership

Good management is associated with effective leadership. Fitsimmons (2007) distinguishes between good leadership and good management. Good leadership is

dynamic, whereby good management is static. Good management and good leadership are required for effective leadership. Effective leadership can be seen in good management (Bennett, 2003). Good management provides the framework from which to launch successful leadership strategies with a sense of order and consistency (Gokenbach, 2003). Further, good management condones the successful transfer of management knowledge (McKnight, 2007).

Effective leadership is expected to produce a desired or intended result as determined by the organization's objectives. Further, effective leadership promotes a culture that engages employee and clients and encourages focus, energy and spirit (Turner, 2007/2008). Riggio and Reichard (2008) state the role of emotional and social skills in effective leadership. They hold that emotional skills and complementary social skills are essential for effective leadership. Meanwhile, Nichoson, Sarker, Sarker and Valacich (2007) conclude that behavioural and trait approaches are dominant in explaining effective leadership. They state national culture plays a role in determining what is considered effective leadership.

Interestingly, Hopkins, O'Neil and Bilimoria (2006) study on women managers finds the characteristics of effective leadership are vision, takes action, communicates and is a team builder. Those characteristics contribute to their successful advancement in the women managers' health care fields. Thus, university leaders need to have effective leadership by striking a balance between good management and good leadership. By having an effective leadership by faculty members, this can assist them toward producing the desired results in achieving the organization's objectives.

2.7.5 *Transformational Style*
In a similar vein, during the 21st century transformational style leadership has been lauded as the requirement of present leaders. This notion is also experienced by faculty members in the university. The word transformational derives from transformation (Oxford English Dictionary, 2010). Transformation is known as a marked change in nature, form, or appearance. In the context of leadership, a leader is the person, who makes changes in the nature, form and appearance of work and people in an organization. The scholarly research on leadership concentrates on the transformational paradigm (Koen & Bitzer, 2010). Further, transformational leadership focuses on "the interactions between leaders and followers, an emerging idea significant in the

university context" (Kezar, Carducci & Contreres-McGavin, 2006 in Koen & Bitzer, 2010, p.3).

Transformational leaders encourage employees, build trust, and gain admiration, loyalty and respect from subordinates (Limsila & Ogunlana, 2008). Transformational leadership is associated with effective leadership, and visionary leadership is associated with long term direction and planning capacity (Jogulu & Wood, 2008). Transformational leadership is more effective, productive, innovative, and satisfying to followers as both parties work towards the good of the organization propelled by shared visions and values as well as mutual trust and respect (Burns, 1978; Avolio & Bass, 1991; Fairholm, 1991; Stevens et al., 1995; Lowe et al., 1996; Lo et al., 2009).

2.7.6 *Charisma*

Charisma is a human trait. It is found in persons whose personalities are characterized by charm and magnetism, along with innate and powerfully sophisticated abilities of interpersonal communication and persuasion. Someone who is charismatic is said to be capable of using their personal being, rather than just speech or logic alone, to interface with other human beings. Charisma is associated with the person's way of dealing with others. Being a leader, charismatic people act beyond their own self-interest for the good of other persons or the group. Simultaneously, the person will display a sense of power and confidence. Through power and confidence, the leader instils pride in others for being associated with him/her. Moreover, Lee and Liu (2011) conclude that charismatic leaders are able to express themselves fully. They also know who they are, what their advantages and disadvantages are, and how to completely use their advantages and compensate for their disadvantages. Moreover, they know what they want, why they want it, and how to communicate what they want in order to gain cooperation and support from others.

Several scholars note that charismatic leadership is more prevalent in public organizations (Lowe et al., 1996; Javidan & Waldman, 2003). This assertion can be challenged as charismatic leadership is also prevalent in private organizations. As such this study examines the impact of charismatic leaders specifically in the context of the academic leadership of faculty members.

2.7.7   Summary

In summary, the study's leadership components are depicted in Table 2.2 for elaboration. These components contribute as independent variables of the study in exploring the academic leadership construct of faculty members in public universities in Malaysia.

Table 2.2: Academic Leadership Elaboration

No.	Component	Elaboration	Source
1	Visionary	• Thinking about the future with imagination or wisdom. • Look for betterment. • Talks and articulate optimistically about the future.	McLaurin (2008)
2	Adaptable to Change	• Manage resistance. • Adaptable to change toward resistance and challenges. • Instigate change as and when required.	Marshall (2007) Koen & Bitzer (2010)
3	Competency	• Competent in taking the duty. • Having the necessary skills or knowledge to do something successfully.	Erickson (2006) McLaurin (2008)
4	Effective Leadership	• Good management associated with effective leadership. • Sense of order and consistency. • Condones transfer of knowledge.	Bennett (2003) Gokenbach (2003) Fitsimmons (2007) McKnight (2007)
5	Transformational Style	• Change in nature, form or appearance. • Interactions between leaders and followers.	Kezar et al. (2006) Koen & Bitzer (2010)
6	Charisma	• Traits toward leadership. • Characterized by a personal charm and magnetism, innate and powerfully sophisticated abilities of interpersonal communication and persuasion.	Lowe et al. (1996) Javidan & Waldman (2003)

2.8   Theoretical Background

This study examines academic leadership on faculty members as individuals. The study proposes the following theory to be used as a foundation. The theory is self-leadership theory (Manz, 1986; Manz & Neck, 2004; Neubert & Wu, 2006), that is, examining an individual's behaviour and relating it to their performance (Manz, 1986; Horner, 1997; Prussia, Anderson & Manz, 1998). Thus self-leadership theory is closely related to this study of faculty members as individuals and their performance in terms of work-related attitudes.

2.8.1 Self-Leadership Theory

Self-leadership theory was proposed by Manz (1986). The theory is used by several other studies that use self-leadership theory (Manz & Sims, 1986, 1987; Horner, 1997; Prussia et al., 1998; Neubert & Wu, 2006; Neck & Houghton, 2006). Self-leadership is conceptualized as a comprehensive self-influence perspective that concerns leading oneself toward performance of naturally motivating tasks as well as managing oneself to do work that must be done but is not naturally motivating (Manz, 1986). The theory is relevant to this study as it examines individuals. Further, the theory relates to individuals' performance.

Further, self-leadership theory is a process through which individuals control their own behaviour, influencing and leading themselves through the use of specific sets of behavioural and cognitive strategies (Manz, 1986; Manz & Neck, 2004; Neck & Houghton, 2006). Moreover, members who experienced high levels of self-leadership (in other words, people who took on more responsibility and showed leadership initiative) would be more productive than teams exhibiting less self-leadership (Milikin, 1994; Horner, 1997). At an end, self-leadership practices can determine whether an individual performs well or fails in terms of their performance (Manz, 1986; Neck & Manz, 1992, 1996; Stewart, Carson & Cardy, 1996; Prussia et al., 1998). Further, self-leadership is comprised of self-control, self-regulation, self-management and cognition (Manz, 1986; Neubert & Wu, 2006). Subsequently, Manz & Neck (2004) link self-leadership with the additional components of self-direction and self-motivation.

This study sees the self-leadership theory as where an individual is influenced and leads by specific mental and behavioural strategies. For specific mental strategies, the individual uses mental imagery and self-talk. Meanwhile, for behavioural strategies, the individual's belief in their self-observation, self-reward, self-set goal and self-punishment. These strategies lead to individual performance which can be translated into their success or failure (Neubert & Wu, 2006). Horner (1997) states an individual with high self-leadership eventually leads to high production in terms of performance.

2.9   Work -Related Attitude Conceptualization

Work-related attitude is reviewed based on the total quality management perspective. Reviews indicate that leadership has an effect on work-related attitude among workers in organizations (Kidwell & Valentine, 2008; Bhal, Gulati & Ansari, 2009; Butler,

2009; Eddleston, 2009; Burke, Koyuncu & Fiksenbaum, 2008; Dellve, Skagert & Vilhelmsson, 2007; Jensen & Luthan, 2006; Tu et al., 2006; Walumbwa et al., 2005a; Walumbwa, Orwa, Wang & Lawler, 2005b; Karl, Peluchette & Hartland, 2005; Shirey, 2004; Sagie et al., 2002; Loughlin & Barling, 2001; Jiang & Klein, 1999/2000; Hammer, 1978). Luthans (1995) states leaders with positive affect are more likely to have a positive attitude. Meanwhile, Alas and Edwards (2006) claim work-related values as the outcome of the intricate interaction of a number of factors which include the national cultural and institutional context, the specific industry context, the organizational environment and, finally, the characteristics of individual themselves.

The work-related attitude of faculty administrators is considered similar to that experienced by managers in public and private organizations. Managers in organizations also experience job satisfaction, better relations among their supervisors and subordinates, less stress and good work-related health, happiness at work, build work spirit and trust. Guimaraes (1996) conceptualizes several indicators for work-related attitude such as job satisfaction, career satisfaction and organizational commitment. These indicators will be examined in relation to the faculty administrator's academic leadership.

Further, no studies are found that directly link how academic leadership relates to faculties' broader psychological attachment to the organization and their job as gauged by their job satisfaction, career satisfaction and organizational commitment. Further, this provides an opportunity for this study to explore the link between the attributes of academic leadership toward work-related attitude. Moreover, this study can examine the impact of academic leadership attributes on job satisfaction, career satisfaction and organizational commitment.

2.9.1 Job Satisfaction

Job satisfaction refers to a person's positive affective relation to his/her job (Noordin & Jusoff, 2010). Job satisfaction is associated with participation which includes enhanced self-esteem, feelings of control, responsibility, task identity and task meaningfulness (Oswald, Hossholder & Harris, 1994). Further, job satisfaction can be achieved through mentally challenging work, equitable rewards, a supportive working environment and helpful colleagues (Forsyth, 1995). Bhuian and Islam (1996) define job satisfaction as the extent to which a worker feels positively or negatively about his or her job. Job

satisfaction comes in the form of compensation, job security, career opportunity and career advancement. Alas and Edwards (2006) state job satisfaction as affective; a pleasurable emotional state resulting from the appraisal of one's work.

Several studies focus on the impact of leadership on job satisfaction. The summary of the above studies is depicted in Table 2.3. Most of the studies indicate that leadership has an impact on job satisfaction in terms of direct and indirect influence (Neubert, Carlson, Kacmar, Roberts & Chonko, 2009), stimulates job satisfaction (Erkutlu, 2008), positive relationships (Niehoff, Enz & Grover, 1990; Eddy, Lorenzet & Mastrangelo, 2008), impact on job satisfaction (Dubinsky, 1998; Cullen, 1999; Urden & Rogers, 2000; Holmberg, Fridell, Arnesson & Backvall, 2008), strong and positive effect (Hammer, 1978; Walumbwa, 2005a, 2005b), direct impact (Ribelin, 2003), positive impact (Hueih-Lirng, Mills & Waltz., 2001) and improves job satisfaction (Rowney & Cahoon, 1990; Crow & Hartman, 1995).

Table 2.3: Summary of Leadership Impact on Job Satisfaction

References	Study	Results	Research Design
Neubert et al., 2009	Ethical leadership	Direct and indirect influence on job satisfaction	Questionnaire; participants work fulltime, within an organization (i.e., no telecommuters or virtual members), and have direct and frequent contact with their manager.
Erkutlu, 2008	Influence of leadership behaviour	Transformational leadership stimulates job satisfaction	Questionnaires to managers and non-managerial employees of boutique hotels
Eddy et al., 2008	Effect of personal leadership on professional leadership	Professional and personal leadership are positively related to job satisfaction	Questionnaires to employees from a government agency
Holmberg et al., 2008	Leadership styles	Impact on job satisfaction	Mail questionnaires to 112 treatment personnel. Interviews with 65 employees and managers, observations and feedback workshops.
Hammer, 1978 Walumbwa et al., 2005a, 2005b	Transformational leadership	A strong and positive effect on job satisfaction	Questionnaire; bank tellers and clerks
Ribelin, 2003	Leadership styles	Direct impact on staff intent to stay (i.e. job satisfaction)	Convenience sample questionnaire to RNs
Hueih-Lirng et al., 2001	Leadership styles	A significant and positive impact on job	Nurses in Taiwan

		satisfaction	
Urden and Roger, 2000	Leadership	Impact on job satisfaction	Conceptual
Cullen, 1999	Leadership	Impact on staffs retention (i.e. job satisfaction)	Conceptual
Dubinsky, 1998	Leadership	Transactional leadership has more impact compared to transformational leadership	Questionnaire Sales managers
Crow and Hartman, 1995	Improve job satisfaction		Conceptual
Niehoff et al., 1990	Top management actions	Strongly related to job satisfaction	Questionnaire; Insurance company employees
Rowney & Cahoon, 1990	Women leadership	Improvement in the status of women as managers	Female employees

2.9.2   Career Satisfaction

Greenhaus et al. (1990) refer to career satisfaction as the overall affective reaction of individuals to their career. A satisfied person is more likely to provide high levels of service to their customers and more likely to remain with the organization, thus reducing staff turnover (Butler, 1996; Kerr, 1996). Further, satisfied leaders have no intention to leave because they are satisfied with their careers (Eddleston, 2009).

Only a handful of studies are undertaken on leadership and its impact on career satisfaction. Tu, Forret and Sullivan (2006) indicate that, among Chinese managers, leadership in a middle management position is associated with greater career satisfaction. Further, leadership has been examined in terms of career satisfaction and psychological well being in managerial and supervisory positions in the hospitality and tourism industry sector (Burke et al., 2008). Moreover, organizations must understand the relationships between leaders' internal desires, the environment fostered by the organization, and career satisfaction (Jiang & Klein, 1999/2000). Kubicek (2004) looks at the relationship between mentoring and career success. He finds that leaders who have been mentors achieve more promotions, more salary increases and more career satisfaction. The results from Fahey, Myrtle, Schlosser and Lee (1998) suggest managers who focus on getting the job done, seek opportunities that provide them with early leadership experience and demonstrate an ability to manage change will have careers that are satisfying. Table 2.4 summarizes the study on leadership and career satisfaction.

Table 2.4: Summary of Leadership Impact on Career Satisfaction

References	Study	Results	Research Design
Burke et al., 2008	Managerial and supervisory positions in the hospitality and tourism industry sector	Better career satisfaction	Questionnaire
Tu, Forret, and Sullivan, 2006	Chinese middle management managers	Greater career satisfaction	Questionnaire
Kubicek, 2004	Leaders of private and public organizations	Leaders who had been mentored are more career satisfaction	Interview
Jiang & Klein, 1999/2000	Organization leaders	Relationship between internal drives, environment fostered and career satisfaction	Questionnaire
Fahey et al., 1998	Healthcare and medical executives	Leadership causes career satisfaction	Questionnaire

2.9.3 Organizational Commitment

Many definitions exist for organizational commitment. Organizational commitment is commonly conceptualized as an affective attachment to an organization characterized by shared values, a desire to remain in the organization, an action characterized by shared values, a desire to remain in the organization, and a willingness to exert effort on its behalf (Mowday et al., 1979; Allen & Meyer, 1990). Further, organizational commitment refers to the degree of attachment and loyalty felt by individual employees to the organization (Guimaraes, 1996; Luthans, 1995; Mowday et al., 1979; Alas & Edwards, 2006). Becker (1960) views organizational commitment as a reflection of recognized, accumulated interest that binds one to a particular organization (Bhuian & Islam, 1996). Other scholars view organizational commitment as an internal feeling, belief, or set of intentions that enhances an employee's desire to remain with an organization (Buchanan, 1974; Porter, Crampton & Smith, 1976; Bhuian & Islam, 1996) and an employee's feeling of obligation to stay with the organization (Bhuian & Islam, 1996), a strong desire to remain a member of the particular organization, and given opportunities to change jobs (Hunt, Chonko & Wood, 1985; Bhuian & Islam, 1996).

Organizational commitment also results from the good relationship between faculty administrators and superiors and subordinates (Butler, 2009). Further, stress in the work place also plays an impact on organizational commitment. Work stress can be reduced through support in the organization (Shirey, 2004; Bhal et al., 2009). Walumbwa et al.

(2005a) and, Walumbwa, Orwa, Wang and Lawler (2005b) state that transformational leadership has a strong and positive effect on organizational commitment. Moreover, Yiing and Ahmad (2009) discovered that leadership styles have a positive and significant relationship with organizational commitment. Employees who are highly committed to their organizations contribute more effectively to company growth and success. The length of time the employees remain with the organization should correlate with their degrees of attachment and loyalty.

In the context of leadership and organizational commitment of a faculty, the degree of attachment and loyalty is positively related to the number of years the person has served with the organization. Several studies have been conducted on leadership and organizational commitment (Eddy et al., 2008; Erkutlu, 2008; Neubert et al., 2009). Table 2.5 illustrates the summary of the studies.

Table 2.5: Summary of Leadership Impact on Organizational Commitment

References	Study	Results	Research Design
Neubert et al., 2009	Ethical leadership	Direct and indirect influence on organizational commitment	Questionnaire; participants work fulltime, within an organization (i.e., no telecommuters or virtual members), and have direct and frequent contact with their manager.
Yiing and Ahmad, 2009	Leadership style	Positive and significant relationship with organizational commitment	Questionnaire 238 Malaysian UM MBA part-time students and the researchers' working peers
Bhal et al., 2009 Shirey, 2004	Work stress	Impact on organizational commitment	
Erkutlu, 2008	Influence of leadership behaviour	Transformational leadership stimulates career satisfaction	Questionnaires to managers and non-managerial employees of boutique hotels
Eddy et al., 2008	Effect of personal leadership on professional leadership	Professional and personal leadership are positively related to career satisfaction	Questionnaires to employees from a government agency
Walumbwa et al., 2005a, 2005b	Transformational leadership	Strong and positive effect on organizational commitment	Questionnaire; bank tellers and clerks

2.10   Academic Leadership and Work-Related Attitude Components

Academic leadership is examined from the perspective of individual attributes. The attributes of faculty members is what constructs academic leadership. On the other hand, the work-related attitude is examined in terms of its impact from the attributes of the individual. This study views academic leadership attributes together with work-related attitude and its impact. Thus, the bridge between academic leadership and work-related attitude is the attribute's impact caused by individual faculty members. This study explores the link between academic leadership components and work-related attitude among faculty members in public universities of Malaysia. From the literature review, not many studies have been undertaken on academic leadership and work-related attitude. Many indirect studies have been undertaken on leadership and work-related attitude of job satisfaction, career satisfaction and organizational commitment. Conversely, not many studies highlight a direct link between academic leadership and its impact on faculty members. Thus, this study perceives a need for a contribution to link between academic leadership and work-related attitude.

As mentioned, many reviews reveal that academic leadership and its impact on job satisfaction can be linked indirectly to ethical leadership (Neubert et al., 2009), influence of leadership attributes (Erkutlu, 2008), effects of personal leadership (Eddy et al., 2008), leadership styles (Rowney & Cahoon, 1990; Dubinsky, 1998; Cullen, 1999; Urden & Roger, 2000; Hueih-Lirng et al., 2001; Ribelin, 2003; Holmberg et al., 2008), transformational leadership (Hammer, 1978; Walumbwa et al., 2005a, 2005b) and top management actions (Niehoff et al., 1990). These studies indicate an indirect link between academic leadership and job satisfaction in terms of stimulation (Erkutlu, 2008), positive relationship (Eddy et al., 2008), positive impact (Dubinsky, 1998; Urden & Roger, 2000; Ribelin, 2003) and positive effect (Hammer, 1978; Hueih-Lirng et al., 2001; Walumbwa et al., 2005a, 2005b). These studies are depicted in Table 2.9 of section 2.9.1.

From the perspective of career satisfaction academic leadership is linked indirectly to managerial and supervisory positions (Fahey et al., 1998; Tu et al., 2006; Burke et al., 2008) and organization leaders (Jiang & Klein, 1999/2000; Kubicek, 2004). These studies indicate an indirect link between academic leadership and career satisfaction in terms of better career satisfaction (Kubicek, 2004; Tu et al., 2006; Burke et al., 2008),

better relationships and career satisfaction (Jiang & Klein, 1999/2000) and leadership causes (Fahey et al., 1998). These studies are depicted in Table 2.10 of section 2.9.2. Moreover reviews also state the impact of organizational commitment can be linked indirectly to ethical leadership (Neubert et al., 2009), leadership style (Yiing & Ahmad, 2009), work stress (Shirey, 2004; Bhal et al., 2009), leadership influence (Erkutlu, 2008), personal leadership (Eddy et al., 2008) and transformational leadership (Walumbwa et al., 2005a, 2005b). These studies indicate an indirect link between academic leadership and organizational commitment in terms of being an authentic leader (Jensen & Luthan, 2006), transformational leadership (Walumbwa et al., 2005a, 2005b), loose and tight practices (Sagie, Zaidman, Amichai-Hamburger, Te'eni & Schwartz, 2002), family influence (Loughlin & Barling, 2001), work experience (Loughlin & Barling, 2001), leader direction and participation (Cassar, 2001), role perception (Jones & Holdaway, 1996) and leader attributes (Petty & Bruning, 1980).

In summary, although there is no direct link between academic leadership and work-related attitude, per se, the above reviews indicate an indirect link between them. This gives this study an opportunity to examine a direct link between academic leadership and work-related attitude. In an up-to-date review of literature on academic leadership in Malaysia, there are not many studies on academic leadership that relate to the country's higher education. Further, almost no studies are done on public universities. It is crucial for the government of Malaysia to know the level of academic leadership of faculty members. This information could lead the government in planning their human resource needs for the nation's public universities to ensure their faculty members have academic leadership. Moreover, higher management of public universities could gauge themselves alongside the relevant departments and units to provide training and courses for faculty members on their academic leadership. Subsequently, it is expected that the impact of academic leadership among faculty members could provide them with a positive and encouraging performance in terms of faculty members' work-related attitudes.

2.11   Research Framework

This study intends to investigate the relationship and impact of academic leadership construct on work-related attitude. The academic leadership construct comprises of vision, being adaptable to change, competency, effective leadership, transformational style and charisma. Meanwhile, work-related attitudes comprise job satisfaction, career

satisfaction and organizational commitment. From the literature review, the study's research framework is derived and depicted in Figure 2.1.

Figure 2.1: Research Framework
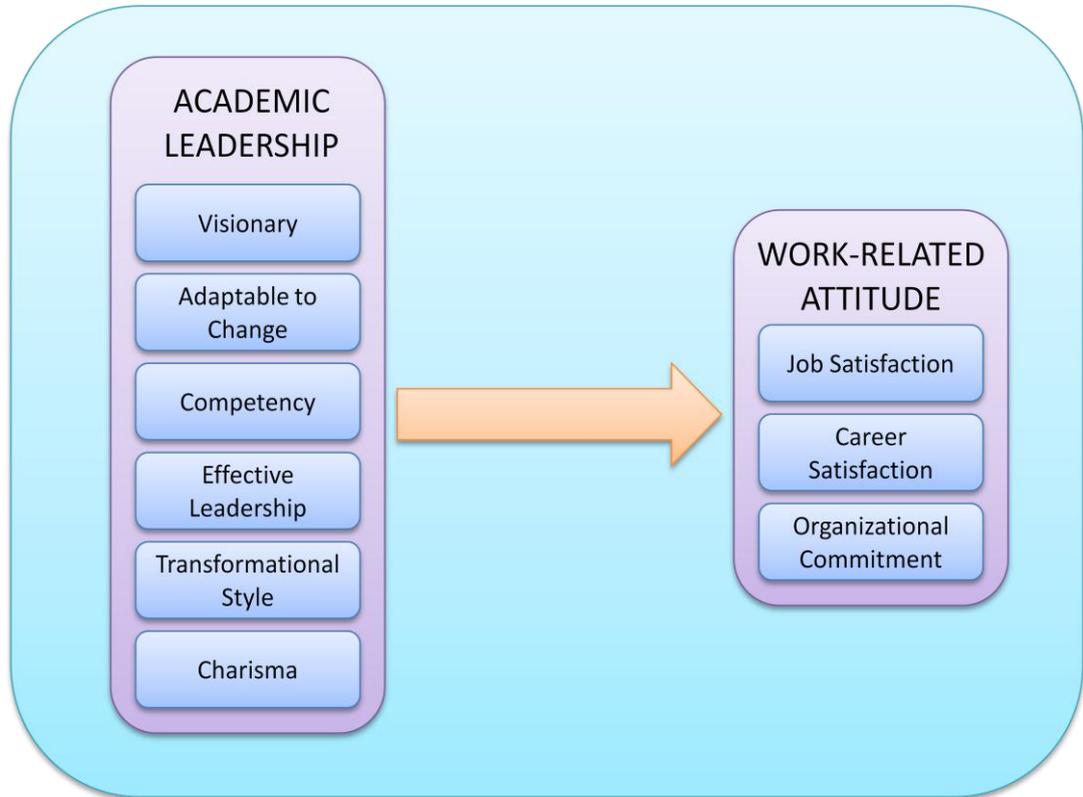
2.12 Hypotheses

Based on the research framework, a main hypothesis (H_{Main}) is generated. Further, three major hypotheses (H_1, H_2 and H_3) with eighteen subsidiary hypotheses (H_{1a-f}, H_{2a-f} and H_{3a-f}) are proposed:

H_{Main} : Academic leadership has a positive effect on work-related attitude.

H_1 : Academic leadership has a positive effect on job satisfaction.
$\quad H_{1a}$: Visionary has a positive effect on job satisfaction.
$\quad H_{1b}$: Adaptable to change has a positive effect on job satisfaction.
$\quad H_{1c}$: Competency has a positive effect on job satisfaction.
$\quad H_{1d}$: Effective leadership has a positive effect on job satisfaction.
$\quad H_{1e}$: Transformational style has a positive effect on job satisfaction.
$\quad H_{1f}$: Charisma has a positive effect on job satisfaction.

H_2	:	Academic leadership has a positive effect on career satisfaction.
H_{2a}	:	Visionary has a positive effect on career satisfaction.
H_{2b}	:	Adaptable to change has a positive effect on career satisfaction.
H_{2c}	:	Competency has a positive effect on career satisfaction.
H_{2d}	:	Effective leadership has a positive effect on career satisfaction.
H_{2e}	:	Transformational style has a positive effect on career satisfaction.
H_{2f}	:	Charisma has a positive effect on career satisfaction.

H_3	:	Academic leadership has a positive effect on organizational commitment.
H_{3a}	:	Visionary has a positive effect on organizational commitment.
H_{3b}	:	Adaptable to change has a positive effect on organizational commitment.
H_{3c}	:	Competency has a positive effect on organizational commitment.
H_{3d}	:	Effective leadership has a positive effect on organizational commitment.
H_{3e}	:	Transformational style has a positive effect on organizational commitment.
H_{3f}	:	Charisma has a positive effect on organizational commitment.

2.13   Summary

This chapter elaborates the literature reviews on academic leadership and work-related attitude. It proposes a research framework with main, major and subsidiary hypotheses. These lead to the subsequent chapter of research methodology for the study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter elaborates the research methodology on academic leadership and faculty work-related attitude in public universities in Malaysia. This chapter also elaborates on the study's population, unit of analysis, data collection methods and instruments, and demographic information. This chapter also elaborates on the pilot studies undertaken.

3.2 The Study's Paradigm

The study looks at the research problem of academic leadership among faculty members in public universities of Malaysia. The study uses structured interviews and survey questionnaires in order to achieve the intended objectives. This study is located in the positivist paradigm in order to answer the "what" research questions. Structured interviews are employed as the means of gaining quantitative data from selected faculty members in public universities in Malaysia. Thus, this study does not employ the qualitative paradigm. Further, questionnaires are distributed among faculty members in exploring their academic leadership and work-related attitude. The survey questionnaire is self-administered.

Quantitative research quantifies the "variation of a situation, problem or issue if the information is gathered using predominantly quantitative variables; and if the analysis is geared to ascertain the magnitude of the variation" (Kumar, 2005, p.12). Collis and Hussey (2009) claim quantitative research has the ability to effectively translate data to easily quantifiable charts and graphs. Further, Hussey and Hussey (1997) assert quantitative data is more efficient, able to test hypotheses and applicable to a positivist paradigm.

This research is categorized as applied research in which the researcher intends to solve specific problems that are being experienced by individuals or organizations (Sekaran, 2003). Further, this study is considered as correlation research since it ascertains the relationship between academic leadership and faculty work-related attitude. Thus, it establishes or explores a relationship, an association and an interdependence of the study (Kumar, 2005).

Sutton and Staw (1995) state theory is the answer to queries of why. Theory is in relation to the connections among phenomena, a story concerning why events, structure, acts and other thoughts occur. This study uses theory deduction. Theory deduction is defined as the process by which the research arrives at a reasoned conclusion by logical generalization of a known fact (Sekaran, 2003). Colquitt and Zapata-Phelan (2007) suggest that researchers who seek to test theory follow the hypothetico-deductive approach to formulate hypotheses before testing those hypotheses with observations. Creswell (1994) elaborates that a deductive approach enables the researcher to build within the existing theory. He claims the advantages of a deductive approach are:

1. It explains the causal relationship between variables,
2. It allows the development of hypotheses, and
3. It controls the testing of hypotheses.

This study employs a cross-sectional time horizon. A cross-sectional study is a research study for which data are gathered just once to answer the research questions. The point of a time horizon is that it can be stretched over a period of days, weeks or months (Sekaran, 2003). Further, cross-sectional study saves time and financial means in obtaining the intended data. The summary of this study is depicted in Table 3.1.

Table 3.1: Summary of the Study

Research Philosophy	Positivism
Research Approach	Deductive
Research Strategy	Survey
Time Horizon	Cross-sectional
Data Collection Methods	Structured Interviews Survey Questionnaires

3.3   Population

The population represents the subject being studied in order to obtain information about what happens within a particular group. It can be a group of people, events or things of interest that the researcher wishes to investigate (Sekaran 2003). In this study, the population are faculty members in public universities of Malaysia. By location, the Peninsular has 18 universities; meanwhile in Sabah and Sarawak, there is one each respectively. This gives a total of 20 public universities throughout Malaysia (see Map 3.1).

Map 3.1: Number of Public Universities in Malaysia

3.3.1 Population Frame

The population frame is faculty members. The list of faculty members is obtained from the university's academic staff web sites. Data mining of faculty member email addresses is conducted.

3.4 Unit of Analysis

The unit of analysis refers to the level of aggregation of the data collected during the subsequent data analysis stage (Kurz, Mueller, Gibbons & DiCataldo, 1989; Sekaran, 2003). In this study, the unit of analysis is the individual faculty member of the public university. The data is gathered from each individual and treat each response as an individual data source (Sekaran, 2003).

3.5 Data Collection Methods

Data collection methods are in two phases and to be conducted in Malaysia. The first phase is structured interview of administrative faculty members from selected public universities. Structured interview of academic leaders are conducted face-to-face.

The second phase is the survey questionnaire of faculty members in all public universities. The survey questionnaires are administered to faculty members by using a premium online survey between August and October 2010 provided by www.surveymonkey.com. Fees for premium online survey are paid for the period of data collection.

3.6 Sample

3.6.1 Sample Size

Sample size is important to establish the representative of the sample for generalization (Sekaran, 2003). The sample size is also important in obtaining a reliable regression model (Green, 1991; Milles & Shevlin, 2001). Moreover, any significant test depends on sample size. Field (2009) states a minimum sample size of 300 cases is recommended as a good sample size, 100 as poor and 1,000 as excellent for factor analysis.

In this study, a total of between 600 to 1,000 faculty members from public universities in Malaysia was emailed an invitation to take part in the survey. This study expected to receive 25% to 30% of the survey response rate. This response rate was in accordance with Zabid and Alsagoff (1993), and Manshor, Jusoh and Simun (2002) based on their studies of faculty members of universities in Malaysia. The expected survey response rate can be considered substantial to achieve statistical significance. Further, Roscoe (1975) proposed the rule of thumb that sample sizes larger than 30 and less than 500 are appropriate for most research.

3.6.2 Nature of Sample

Participants of this study were drawn from individuals who work in public universities of Malaysia as faculty members. These faculty members were rank ordinary faculty members, assistant professors, associate professors and professors. Moreover, these faculty members may also hold an academic position such as chairperson, deputy dean, deputy director, director, dean, deputy vice chancellors or vice chancellor. These faculty members may have been serving the public universities for a number of years.

3.7 Structured Interview

The structured interviews were conducted to answer the "what" questions on the definition of academic leadership and the components that relates to it. Further, components of work-related attitude were asked during the interview. The purpose of this structured interview was to obtain an input on the definition and components of academic leadership and work-related attitude from the selected administrative faculty members of public universities in Malaysia. The interview data was examined using thematic or content analysis. The data was quantified accordingly. From the structured interview data, this study expected to answer the research question on the definition of

academic leadership (RQ1) and the components of academic leadership and faculty's work-related attitude in the context of public universities of Malaysia (RQ2). The structured interview protocol is depicted in Appendix 1.

Several structured interviews were conducted with top management of selected public universities in Malaysia. The interview explored academic leadership and faculty work-related attitude from the perspective of top management. The structured interview expected to give a "what" answer in the context of public universities on the definition and components of academic leadership and work-related attitude.

The selection of public universities was based on their establishment period; there was an approximate 10-year gap among the selected universities. The selected public universities were considered as long-established, mid-established and new-established. Further, the academic leadership of public universities were reflected according to the establishment period. Aside from this, the MOHE also classified public universities into an accelerated programme for excellence university (APEX), research university (RU), comprehensive university (CU) and focus university (FU).

3.7.1 Interview Arrangements

Structured interview participants were contacted through an e-mail invitation. The e-mail invitations were sent in June 2010. Sixteen respondents were identified for the interview from eight public universities. The respondents were vice chancellors, deputy vice chancellors, deans and directors. The e-mail invitation stated the intention for the structured interview, proposed date and time, and the protocol. Some e-mail invitations were sent to the respondent's personal assistant or secretary for securing the interview sessions. The list of proposed respondents is in Appendix 2.

Initially, the majority of the respondents were willing to meet and be interviewed. Unfortunately, there were cases where respondents were not able to commit themselves at the last minute due to important commitments with the university and the MOHE. Thus, cancellation of arranged interview sessions happened. Several respondents had made an arrangement for their replacement or a person to answer on their behalf.

3.7.2 *Interview Fieldwork*

The interview fieldwork took place in August 2010. First, Week 1 (2-6 August 2010), there were four interviews being conducted. Second, Week 2 (9-13 August 2010), there were six interviews. Third, Week 3 (16-20 August 2010), there were three interviews. Finally, Week 4 (23-27 August 2010), there were four interviews. Thus a total of 17 respondents took part in the face-to-face interviews. The list of respondents is depicted in Appendix 3.

3.8 Survey Questionnaire

Based on a comprehensive literature review, several research instruments were considered for adaptation and adoption to suit the study. Literature reviews were conducted on leadership in private and public organizations, also not for profit organizations. Further, academic leadership reviews were examined from areas of academia and higher education. A questionnaire was developed to investigate the relationship between academic leadership and work-related attitude.

The independent variable in the study was academic leadership. For the purpose of the study, independent variables of academic leadership were vision, adaptable to change, competency, effective leadership, transformational style and charisma. On the other hand, the dependent variables of work-related attitude were job satisfaction, career satisfaction and organizational commitment. The survey questionnaire intended to answer the research question on the relationship between academic leadership and faculty's work-related attitude (RQ3). Further, it intended to realize the impact of academic leadership on faculty's work-related attitude (RQ4).

3.9 Academic Leadership Instruments

The academic leadership questionnaire was developed from instruments available from the literature. Three potential instruments that can be used in the study:

1. Multifactor Leadership Questionnaire.
2. Transformational Leadership Questionnaire.
3. Leadership Behaviour Description Questionnaire – Form XII.

3.9.1 *Multifactor Leadership Questionnaire*

In the US, the most popular survey instrument being used in leadership studies was the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1995; Avolio, Bass &

Jung, 1999). The concept of MLQ was based on Burns (1978); later the idea was explored further by Avolio and Bass in the mid-80s. From the reviews, the MLQ was used extensively in determining leadership styles (Lee, 2005; Kirkbride, 2006; Castiglione, 2006; Vbra, 2007; Limsila & Ogunlana, 2008; Xirasagar, 2008; Wu, 2009) in private organizations. Further, the MLQ was reliable and valid, and had been used worldwide (Bass & Avolio, 1995).

The MLQ consists of 45 items. It measured leadership behaviour of transformational leadership, transactional leadership and non-transactional leadership. The MLQ also measured three outcomes of leadership, namely extra effort, effectiveness and satisfaction. Further, the MLQ can be used to examine not just leaders but also perceptions of subordinates on their leaders. The MLQ was owned by the Mind Garden, Inc., United States of America (http://www.mindgarden.com/products/mlq.htm). The MLQ survey instrument was on sale:

1. The MLQ Manual/Sampler Set:
    The cost was US$40.00 (£26.41). It consisted of non-reproducible instrument and scoring key marked "sample".

2. The MLQ Instrument:
    The cost depended on the number of reproductions required for the study. The minimum purchase was US$100.00 (£66.01) and written license to reproduce the questionnaire for the maximum of 50. The purchase amount did not include the Manual/Sampler Set. Details of the cost were available at http://www.mindgarden.com/products/mlqr.htm.

This study considered 600 questionnaires to be distributed to faculty members in the 20 public universities in Malaysia. As such the cost of using the MLQ was almost US$500.00 (£330.03). Due to financial justification, it was not viable to use the MLQ instrument. [Note: Exchange rate calculation based on Barclays Bank on 12/3/2010 11.00 am with the exchange of GBP:USD at 1.515]

3.9.2   Transformational Leadership Questionnaire

In the UK, Alimo-Metcalfe and Alban-Metcalfe (2000), and Alban-Metcalfe and Alimo-Metcalfe (2007) had developed a questionnaire known as the Transformational

Leadership Questionnaire (TLQ). The development of the questionnaire transpired as the MLQ were used mostly with the US organizations. As such it comes with a diagnostic tool that caters for UK organizations. The TLQ had been tested on public organizations in the UK such as the Cabinet Office and the Improvement and Development Agency (Alban-Metcalfe & Alimo-Metcalfe, 2000; Alban-Metcalfe & Alimo-Metcalfe, 2007). The TLQ had been distributed to "an approximately equal number of male and female managers and managers at different levels of seniority (executive, top, senior, middle)" (Alban-Metcalfe & Alimo-Metcalfe, 2000, p.283). Through these self-assessments by managers on their leadership, the results supported the hypotheses that each scale was a valid predictor.

The TLQ instrument can be administered to subordinates at all levels in the organization to anonymously complete the questionnaire by rating their current or a previous boss (Alban-Metcalfe & Alimo-Metcalfe, 2000; Alimo-Metcalfe & Alban-Metcalfe, 2001; Alban-Metcalfe & Alimo-Metcalfe, 2007). As such it gave a better perspective of 360-degree evaluation as "managers, in general tend to rate themselves higher in management competence and leadership effectiveness than do their colleagues who also rate them (i.e. their boss, peers, and staff)" (Alimo-Metcalfe, 1998, p.36).

The TLQ was owned by the Real World Group Limited (RWG), United Kingdom (http://www.realworld-group.com/index.asp). This study contacted RWG with the intention of using the TLQ. Unfortunately, the RWG listed the terms of use of the TLQ (refer to Appendix 4). The pertinent issues relating to non-use of the TLQ are justified below as listed in RWG's correspondence:

1. "that the *TLQ* items will not be published in full, and that the dissertation will only give a maximum of <u>two</u> examples to illustrate each of the scales;"
2. "that any publication of the research findings in an academic or professional journal or conference presentation will only include (as a maximum) the <u>same two</u> examples as in the dissertation;"
3. "that the results will be communicated to RWG as soon as is practicable."
4. "that a copy of the data relating to the *TLQ* will be forwarded to RWG on completion of the research project to enable RWG to maintain its data base, and up-date its norms."

Further, RWG allowed TLQ to be used in this study by fulfilling the requirement,

"that you send a £50 cheque made payable to Real World Group as deposit for the data; that will be returned to you on receipt of RWG receiving the data."

The rejection of the TLQ was due to the restriction of dissemination of knowledge in the form of dissertation, academic or professional journal or conference presentation. This was also due to the restriction to use only two examples to illustrate each of the scales and the similar examples to be used in all other publications. Moreover the data from the research must be given to RWG for their data base update. And, if the research result was practicable, then RWG must be informed. This, in turn, means the whole research study became the property of RWG.

3.9.3 *Leadership Behaviour Description Questionnaire*

The Leadership Behaviour Development Questionnaire – Form XII (LBDQ-XII) was developed by Ohio State University, USA (Stogdill, 1963). The questionnaire is freely available from the Fisher College of Business, Ohio State University's website (http://fisher.osu.edu/offices/fiscal/LBDQ-XII/). Further, the use of the LBDQ-XII needs no permission.

The LBDQ-XII consisted of 100 items with 12 subscales. The breakdown of the number of item under subscales is depicted in Table 3.2.

Table 3.2: The LBDQ-XII's Subscales

No.	Subscale	Subscale Explanation	No of Item
1	Representation	Speaks and acts as the representative of the group.	5
2	Reconciliation	Reconciles conflicting demands and reduces disorder to system.	5
3	Tolerance of Uncertainty	Ability to tolerate uncertainty and postponement without anxiety or upset.	10
4	Persuasion	Uses persuasion and argument effectively; exhibits strong convictions.	10
5	Structure	Clearly defines own role, and lets followers know what is expected.	10
6	Tolerance and Freedom	Allows followers scope for initiative, decision and action.	10
7	Role Assumption	Actively exercises the leadership role rather that surrendering leadership to others.	10

8	Consideration	Regards the comfort, well being, status, and contributions of followers.	10
9	Production Emphasis	Applies pressure for productive output.	10
10	Predictive Accuracy	Exhibits foresight and ability to predict outcome accurately.	5
11	Integration	Maintains a closely knit organization; resolves inter-member conflicts.	5
12	Superior Orient	Maintain cordial relations with superiors; has influence with them; is striving for higher status.	10

The LBDQ-XII had been tested on several highly selected samples such as commissioned and non-commissioned officers in an army combat division, the administrative offices in a state highway patrol headquarters office, the executives in an aircraft engineering staff, ministers of various denominations of an Ohio Community, leaders in community development activities throughout the state of Ohio, presidents of 'successful' corporations, presidents of labour unions, presidents of colleges and universities, and United States Senators. The LBDQ-XII Cronbach's alpha of the samples was 0.54 to 0.86 across the nine time periods.

The LBDQ-XII was also used in various leadership studies such as leadership of German and English managers (Schneider & Littrell, 2003), leadership behaviour of Chinese managers (Littrell, 2002) and leadership style preference (Lucas, Messner, Ryan & Sturn, 1992). Schriesheim and Glinow (1977) assert the LBDQ-XII constitutes the most operational accuracy of the theory's leadership construct. Further, Szilagyi and Keller (1976) claimed that the LBDQ-XII initiating structure dimension is significantly and positively related to satisfaction with supervision and overall satisfaction.

Table 3.3 shows the LBDQ-XII is relevant although the instrument was established almost 50 years ago by Stogdill (1963). House (1996) stated the most frequently used measures are the Ohio State leader initiating structure and leader consideration scales.

Table 3.3: The LBDQ-XII in Theses and Journals

Year	Items	Type
2009	4	Theses Journal
2008	4	Theses Journal
2007	9	Theses
2006	5	Theses
2005	4	Theses
2004	8	Theses
2003	13	Theses

		Journal
2002	7	Theses
		Journal
2001	3	Theses
2000	2	Theses

As for this study, the LBDQ-XII was adopted and adapted according to the previous empirical studies and the level of its Cronbach's alpha apart from the free availability of the tool. The Cronbach's alpha for LBDQ-XII ranged from 0.54 to 0.85 (Stogdill, 1963) as depicted in Table 3.4.

Table 3.4: The Cronbach's Alpha for Independent Variables

Part	Construct	No of Items	Cronbach's alpha
A1	Visionary	10	0.69 to 0.85
A2	Adaptable to change	10	0.58 to 0.85
A3	Competency	5	0.59 to 0.81
A4	Effective leadership	10	0.58 to 0.86
A5	Transformational leadership	10	0.64 to 0.80
A6	Charisma	5	0.54 to 0.85
	Total Items for Independent Variables	50	

3.10 Work-Related Attitude Instrument

The work-related attitude instrument was adopted and adapted from literature. Work-related attitude was examined from the perspectives of job satisfaction, career satisfaction and organizational commitment.

3.10.1 Job Satisfaction

Within the 30-year review on the use of instruments for examining job satisfaction, scholars used various instruments such as a single rating question (Yiing & Ahmad, 2009; Yousef, 2000; Bhuian & Islam, 1996; Begley & Czajka, 1993; Wanous, Reichers & Hudy, 1997; Scarpello & Campbell, 1983), Job Description Index (Bateman & Organ, 1983; Petty, McGee & Cavender, 1984; Moorman, Niehoff & Organ, 1993, Janssen, 2001; Erkutlu, 2008), Minnesota Satisfaction Questionnaire (MSQ) (Weiss et al., 1967; Karia & Asaari, 2006), Porter and Smith's 5-item (Eddy et al., 2008), Ekvall's questionnaire (2005), and Brayfield and Rothe's 18-item (1951).

In the recent development, a single rating question on job satisfaction gained the acceptance of a handful of scholars. They all ask an almost similar question such as "all

things considered how satisfied are you with your job?" (Yiing & Ahmad, 2009, p.53) and "overall, are you satisfied with your present job?" (Yousef, 2000, p.14). The use of a single rating question is due to limited questionnaire space (Wanous et al., 1997; Yousef, 2000; Yiing & Ahmad, 2009). Further, Yiing and Ahmad (2009) assert that the use of a single rating question of job satisfaction is supported by Scarpello and Campbell (1983), Wanous et al. (1997), Begley and Czajka (1993), Bhuian and Islam (1996) and Yousef (2000).

A Job Descriptive Index (JDI) was purported due to its extensive use in management studies (Brown & Peterson, 1993; Erkutlu, 2008). Cronbach's alpha for JDI is 0.80 to 0.85 (Bateman & Organ, 1983; Moorman et al., 1993; Janssen, 2001). The Minnesota Satisfaction Questionnaire (MSQ) (Weiss et al., 1967) was adapted and adopted in the work of Karia and Asaari (2006) with Cronbach's alpha of 0.87. The instrument by Ekvall (2005) read Cronbach's alpha of 0.86 in the work of Holmberg et al. (2008). Finally, Porter and Smith's instrument gave the Cronbach's alpha of 0.79 in the work of Eddy et al. (2008). The summary of the use of job satisfaction instrument is depicted in Table 3.5.

Table 3.5: Job Satisfaction Instruments

Job Satisfaction Instrument	References	Cronbach's Alpha
Single rating question	Yiing and Ahmad (2009) Yousef (2000) Bhuian and Islam (1996) Begley and Czajka (1993) Wanous et al. (1997) Scarpello and Campbell (1983)	
Job Descriptive Index (JDI)	Erkutlu (2008) Janssen (2001) Moorman et al. (1993) Petty et al. (1984) Bateman and Organ (1983)	 0.85 0.84 0.80
5-item; Porter and Smith (1970)	Eddy et al. (2008)	0.79
Ekvall (2005)	Holmberg et al. (2008)	0.86
Minnesota Satisfaction Questionnaire (MSQ)	Weiss et al. (1967) Karia & Asaari (2006)	0.87
18-item; Brayfield and Rothe (1951)	Niehoff et al. (1990)	0.86

The use of a single rating question on job satisfaction gained the interest of several scholars. This study does not adopt the single rating question. This was due to the unavailability and undetermined nature of Cronbach's alpha of the single rating question.

In the spirit of this study, the job satisfaction measurement was adopted from Weiss et al. (1967). Further, the level of Cronbach's alpha of the job satisfaction measurement was 0.87. The instrument reliability is the highest compared to the other studies. Thus, the study adopted and adapted a nine-item on job satisfaction (Weiss et al., 1967; Karia & Asaari, 2006) to inquire about circumstances directed towards selecting a well-constructed scale (Yiing & Ahmad, 2009).

3.10.2 Career Satisfaction

For the past 20 years, career satisfaction had been measured using an instrument from Greenhaus et al. (1990). The initial instrument had a Cronbach's alpha of 0.88. In recent work, the instrument had a Cronbach's alpha of 0.90 (Karia & Asaari, 2006). Further, Armstrong-Stassen and Cameron (2005) reveal a Cronbach's alpha of 0.87 by using Greenhaus et al.'s (1990) instrument.

On the other hand, other scholars used Turban and Dougherty's (1994) four-item instrument (Hochwarter, Kiewitz, Gunlach & Stoner, 2004); and Childs and Klimoski's (1986) three-item instrument. The study revealed a Cronbach's alpha of 0.84 and 0.79, respectively. This study adopted and adapted the instrument based on the work of Karia and Asaari (2006). The summary of previous instruments is depicted in Table 3.7.

Table 3.6: Career Satisfaction Instruments

Career Satisfaction Instrument	References	Cronbach's Alpha
5-item; Greenhaus et al. (1990)	Karia & Asaari (2006)	0.90
	Armstrong-Stassen and Cameron (2005)	0.87
4-item; Turban & Dougherty (1994)	Hochwarter et al. (2004)	0.84
3-item; Childs & Klimoski (1986)	Martins, Eddleston & Viega (2002)	0.79
5-item; Greenhaus et al. (1990); own instrument	Greenhaus et al. (1990)	0.88

3.10.3 Organizational Commitment

From the review of literature covering the past 40 years, organizational commitment was measured on the following instrument: Affective Commitment Scale (Meyer, Paunoen, Gellatly, Goffin & Jackson, 1989; Allen & Meyer, 1990; Yiing & Ahmad, 2009), Organizational Commitment Questionnaire (Porter et al., 1974; Steers, 1977; Mowday et al., 1979; Niehoff et al., 1990; Allen & Meyer, 1990; Putti, Aryee & Phua, 1990; Ketchand & Strawser, 1998; Angle & Perry, 1981; Michaels, Cron, Dubinsky &

Joachimsthaler, 1988; Johnston, Parasuraman, Futrell & Black, 1990; Agarwal & Ramaswami, 1993; Mathieu, Bruvold & Ritchey, 2000; Yousef, 2000; Commeiras & Fournier, 2001; Charles-Pauvers & Wang, 2002; Karia & Asaari, 2006; Erkutlu, 2008), Hackman and Oldham's (1975) 15-item instrument (Eddy et al., 2008), Cook and Wall's (1980) instrument, and Potter, Abrahams, Townson and Williams's (2009) instrument (Glison & Durick, 1988).

The Organizational Commitment Questionnaire (OCQ) originated from the work of Mowday et al. (1979). The OCQ was used widely in research and was shown to have acceptable psychometric properties (Mowday et al., 1979). The original OCQ instrument consists of 15-items and Cronbach's alpha was 0.82 to 0.93. Based on the instrument adaptation and adoption, the highest Cronbach's alpha was 0.95 (Karia & Asaari, 2006). The summary of organizational commitment instruments is depicted in Table 3.7.

Table 3.7: Organizational Commitment Instruments

Organizational Commitment Instrument	References	Cronbach's Alpha
Affective Commitment Scale (ACS) (Allen & Meyer, 1990)	Yiing and Ahmad (2009)	0.71
	Allen and Meyer (1990)	0.87
	Meyer et al. (1989)	0.70-0.88
Organizational Commitment Questionnaire (OCQ) (Mowday et al., 1979)	Erkutlu (2008)	0.90
	Karia and Asaari (2006)	0.95
	Charles-Pauvers and Wang (2002)	0.91
	Commeiras and Fournier (2001)	0.81
	Mathieu et al. (2000)	NA
	Yousef (2000)	0.81
	Agarwal et al. (1999)	0.85 (India); 0.90 (US)
	Agarwal and Ramaswami (1993)	NA
	Johnston et al. (1990)	NA
	Michaels et al. (1988)	NA
	Angle and Perry (1981)	0.90
	Ketchand and Strawser (1998)	NA
	Niehoff et al. (1990)	0.89
	Allen and Meyer (1990)	0.81
	Putti et al. (1990)	0.81
	Mowday et al. (1979)	0.88
	Steers (1977)	0.88
	Porter et al. (1974)	NA
15-item; Hackman & Oldham (1975)	Eddy et al. (2008)	0.84
9-item; Cook and Wall (1980)	Avolio, Zhu, Koh & Bhatia (2004)	0.87
Potter et al. (1974)	Glison and Durick (1988)	0.91

This study was based on the level of internal consistency of the Cronbach's alpha of 0.95, the highest among studies using Mowday et al.'s OCQ. Further, the instrument

was based on earlier works of Mowday et al. (1979) and Porter et al. (1974). In the work of Porter et al. (1974), Cronbach's alpha ranged from 0.82 to 0.93 across four time periods of empirical tests. As such, the use of organizational commitment in this study also supported Cronbach's alpha level of acceptance. Table 3.8 shows Cronbach's alpha for independent variables as adopted in this study.

Table 3.8: The Cronbach's Alpha for Dependent Variables

		Reference	No of Items	Cronbach's Alpha
B1	Job satisfaction	Weiss et al., 1967; Karia & Asaari, 2006	10	0.87
B2	Career satisfaction	Greenhaus et al., 1990; Karia & Asaari, 2006	5	0.90
B3	Organizational commitment	Porter et al., 1974; Mowday et al., 1979; Karia & Asaari, 2006	10	0.95
		Total Items for Dependent Variables	25	

3.11 Questionnaire Construct

In this study, the constructs of academic leadership and work-related attitude are adopted and adapted from previous studies namely from Stogdill (1963), and Karia and Asaari (2006). Further, a questionnaire was constructed for this study (see Appendix 5).

The questionnaire was sent to experienced researchers in the area of leadership in higher education and universities. Moreover, several interviews were conducted with faculty administrators in public universities of Malaysia. These interviews helped validate the questionnaires in relation to the constructs of academic leadership and work-related attitude. Thus inputs from interviews and comments helped the questionnaire construct to be more valid and reliable (Parasuraman, 2000). The experienced researchers' comments were taken seriously into consideration in forming the questionnaire's content validity. Further, the questionnaires were piloted twice on faculty members in selected higher learning institutions and universities. This helps further strengthen the questionnaire's content validity.

Subsequently, the adapted and adopted questionnaire for this study was benchmarked with the LBDQ-XII for academic leadership construct and questionnaires from various scholars for work-related attitude construct. The benchmark was considered as a

calibration against a known standard in ensuring the criterion validity of this study's questionnaire.

This study foresees the questionnaire being used in various landscapes in examining and exploring academic leadership and work-related attitude among faculty members in other parts of the world. Thus, the questionnaire has the potential to be improved by other scholars over time. Thus, the construct validity is not tested on the questionnaire. The construct validity is an ongoing process as the scholar refines a theory which helps to make predictions about results in various academic leadership and work-related attitude landscapes.

3.11.1 Independent Variables

In this study, 50 items (Stogdill, 1963) were used to measure the academic leadership subscales, independent variables, on a five-point Likert scale. There were six subscales of academic leadership variables which are adapted and adopted against LBDQ-XII. The adoption and adaptation of the Stogdill's (1963) LBDQ-XII of this study was done through selected items in the LBDQ-XII subscales, changes of item scales, reverse back scales and reword questions to suit the study. The subscale of the study's academic leadership was: visionary; adaptable to change; competency; effective leadership; transformational leadership; and charisma. These were cross-examined in terms of understanding with the subscale of items in the LBDQ-XII.

Visionary - Persuasive

In this study, the visionary was elaborated as thinking about the future with imagination or wisdom; look for betterment; and talks about the future. In comparison, the visionary had almost similar understanding with the item "persuasive" in the LBDQ-XII as he/she used persuasion and argument effectively and exhibits strong convictions. Ten subscales for persuasive could be adapted and adopted toward visionary subscales. The ten items of persuasive were numbered: 3, 13, 22, 33, 43, 53, 63, 73, 83 and 93. The Cronbach's alpha of 10 items was 0.69 to 0.85.

Adaptable to Change – Tolerance of Uncertainty

The adaptable to change element of academic leadership was elaborated as the ability to manage resistance, be adaptable to change toward resistance and challenges, and instigate change as and when required. In comparison with the LBDQ-XII subscales,

the adaptable to change element had almost similar understanding with the item "tolerance of uncertainty" with 10 subscales elaborated as: able to tolerate uncertainty and postponement without anxiety or upset. The 10 subscales that can be adapted and adopted in the adaptable to change subscales were items: 2, 12, 22, 32, 42, 52, 62, 72, 82 and 92. The Cronbach's alpha of 10 items was 0.58 to 0.85.

Competency – Demand Reconciliation

The competency of academic leadership was elaborated as competent in taking the duty and having the necessary skills or knowledge to achieve something successfully. In comparison with the LBDQ-XII, competency had almost similar understanding with the item "demand reconciliation" with five subscales elaborated as: reconciles conflicting demands and reduces disorder to system. The five subscales that could be adapted and adopted in the competency subscales, namely items: 51, 61, 71, 81 and 91. The Cronbach's alpha of 5 items was 0.59 to 0.81.

Effective Leadership – Tolerance and Freedom

The effective leadership of academic leadership was elaborated as: good management associated with effective leadership, sense of order and consistency, and condones transfer of knowledge. In comparison with the LBDQ-XII, effective leadership had almost similar understanding with the item "tolerance and freedom" with 10 subscales elaborated as: allows followers' scope for initiative, decision and action. Ten subscales can be adapted and adopted in effective leadership subscales, namely items: 5, 15, 25, 35, 45, 55, 65, 75, 85 and 95. The Cronbach's alpha of ten items was 0.58 to 0.86.

Transformational Leadership – Initiation of Structure

The transformational leadership of academic leadership was elaborated as change in nature, form or appearance, and interactions between leaders and followers. In comparison with the LBDQ-XII, transformational leadership had almost similar understanding with the item "initiation of structure" with 10 subscales elaborated as: clearly defines own rule, and lets followers know what was expected. The 10 subscales could be adapted and adopted in the effective leadership subscales, namely items: 4, 14, 24, 34, 44, 54, 64, 74, 84 and 94. The Cronbach's alpha of 10 items was 0.64 to 0.80.

<u>Charisma - Representation</u>

The charisma of academic leadership was elaborated as traits toward leadership, and characterized by personal charm and magnetism, innate and powerfully sophisticated abilities of interpersonal communication and persuasion. In comparison with the LBDQ-XII, charisma has almost similar understanding with the item "representation" with five subscales elaborated as: speaks and acts as the representative of the group. The five subscales could be adapted and adopted in the effective leadership subscales, namely items: 1, 11, 21, 34 and 41. The Cronbach's alpha of 5 items was 0.54 to 0.85.

The LBDQ-XII item scales use "always, often, occasionally, seldom and never". This was adapted and adopted as "strongly agree, agree, not sure, disagree and strongly disagree" in academic leadership item scales.

Moreover in the LBDQ-XII, nine items were "scored in reverse." These seven items were reworded for a "positive statement", except two items were used as is. The items were as below:

1. Tolerance of Uncertainty:
   a. "I become anxious when I cannot find out what is coming next". The statement was used as is.
   b. "I become anxious when waiting for new development." The statement was used as is.
   c. "I can wait just so long, then blow up" was reworded as "I am patient to wait for an outcome."
   d. "I worry about the outcome of any new procedure" was reworded as "I am positive about the outcome of any new procedure" and scored in positive statement.

2. Demand Reconciliation:
   a. "I get swamp by details" was reworded as "I am managing based on the available information" and scored in positive statement.
   b. "I get things all tangled up" was reworded as "I do get my works organized" and scored in positive statement.

c. "I get confused when too many demands are made of me" was reworded as "I am manageable when too many demands are made of me" and scored in positive statement.

3. Persuasion:
   a. "I am not a very convincing talker" was reworded as "I am a convincing talker" and scored in positive statement.

4. Tolerance and Freedom:
   a. "I am reluctant to allow the members any freedom of action" was reworded as "I do allow members any freedom of action" and scored in positive statement.

3.11.2 Dependent Variables

The dependent variable in this study is the work-related attitude which was adapted and adopted. The indicators of these attitudes were job satisfaction, career satisfaction and organizational commitment. These variables were adopted and measured as follows:

a. Job satisfaction consists of 10 items measured on a five-point Likert scale ranging from "very satisfied" (5) to "very unsatisfied" (1) on items: 6, 7, 8, 9, 10, 11, 12, 13 and 14 (Weiss et al., 1967; Karia & Asaari, 2006). Cronbach's alpha was 0.87. The items were reworded to suit the study.

b. Career satisfaction consists of five items measured on a five-point Likert scale ranging from "very satisfied" (5) to "very unssatisfied" (1) on items: 15, 16, 17, 19 and 20 (Greenhaus et al., 1990; Karia & Asaari, 2006). Cronbach's alpha was 0.90. The items were reworded to suit the study.

c. Organizational commitment consists of 10 items measured on a five-point Likert scale ranging from "strongly agree" (5) to "strongly disagree" (1) on items: 21, 22, 23, 24, 25, 16, 27, 28, 29 and 30 (Mowday et al., 1979; Karia & Asaari, 2006). Cronbach's alpha was 0.95. The items were reworded to suit the study.

3.12   Demographic Information

In this study, demographic information is gathered according to gender, ethnicity, age, marital status, academic rank, academic discipline, leadership training attended, administrative position, university affiliation and working experience. The demographic information is used in the analysis, especially the cross-tabulation.

3.12.1 Gender

Faculty members in a university comprise of males and females (Huang, Davidson, Liu & Gu, 2008). Identifying them by gender allows this study to draw a comparison between male and female responses to academic leadership and faculty work-related attitude. According to Alimo-Metcalfe and Alban-Metcalfe (2006) there are gender differences between men and women in terms of leadership characteristics.

3.12.2 Marital Status

The marital status is obtained for the purpose of information on the respondents.

3.12.3 Ethnic

In the context of Malaysia, the nation is formed by various ethnic backgrounds. The major ethnic groups are Malay, Chinese and Indian. There are also minority ethnic groups such as Sikh and White. Inquiring into the faculty's ethnicity enables this study to bring a variety of perspectives to bear on academic leadership and its influence on faculty work-related attitude.

3.12.4 Age

Age can be associated with experience. Age differences provide an interesting perspective on academic leadership among faculty members and on faculty work-related attitude.

3.12.5 Academic Discipline

The information on educational background is gathered from degree and major results. As such the education details of this study are gathered from information on educational qualifications: bachelor, master and doctorate degrees. The majors held by faculty members can elaborate on their expertise and scholarship in a specific area. This information can contribute toward a perspective on the academic leadership of faculty members.

3.12.6 Academic Rank

Academic rank can provide the composition of faculty members who take part in the survey. The academic ranking of faculty members in Malaysia includes lecturer, senior lecturer, assistant professor, associate professor and professor. This information is important as it gives the rank differences in the data analysis. In Huang et al. (2008), they consider position as determining an individual's rank in the organization.

3.12.7 Administrative Position

For faculty members with administrative positions, this provides interesting information on the relationship between academic leadership and faculty work-related attitude. The administrative positions of faculty members are Vice Chancellor, Deputy Vice Chancellor, Dean, Director, Deputy Dean, Assistant Director and Programme Chairperson.

3.12.8 Working Experience

Experience is gathered based on the experience of faculty members working in public and private organizations. Some faculty members came from private organizations prior to becoming faculty members. Experience of faculty members is important as it can give substantial information on academic leadership. Yanez (2004) states seniority is reflected in working experience. In addition the working experience of faculty members is gathered by the total number of years of working experience spent in the present university, other public organizations and private organizations.

3.12.9 Research/Consultancy Involvement

Some faculty members may be involved in research and consultancy. The demographic information is gathered whether the faculty member's involvement is individual, group, both, or no involvement at all.

3.12.10 Position in Research/Consultancy Group

Position in the research and consultancy group needs to be identified as it helps in the measurement of faculty members' level of involvement in the group. The position of faculty member is asked in terms of leader, member, others, or none.

3.12.11 Institution

Information from a respondent's institution can provide a comparison for this study in the analysis. The survey instrument is distributed to the 20 public universities in Malaysia. The respondent is required to indicate their attachment to a public university. A comparison can be made between institutions based on cross-tabulation.

3.13 Proposed Analysis

3.13.1 Statistical Programme

This study proposes the data analysis to be examined by using the Statistical Programme for Social Sciences (SPSS) Version 18. The data is examined on the independent and dependent variables, and demographic information. The code book for analysis is depicted in Appendix 6.

3.13.2 Reliability

Cronbach's alpha is used for the study's reliability. Reliability measures the extent to which it is without bias (i.e. error free) and, hence, ensures consistent measurement across time and across the various items in the instrument (Sekaran, 2003). Further, "a reliability coefficient demonstrates whether the test designer was correct in expecting a certain collection of items to yield interpretable statements about individual differences" (Cronbach, 1951, p.297 in Lo et al., 2009).

The survey was developed by adopting past studies by Stogdill (1963) on leadership. In this study of academic leadership, Cronbach's alpha for the items: visionary, adaptable to change; competency; effective leadership; transformational leadership; and charisma was 0.69 to 0.85, 0.58 to 0.85, 0.59 to 0.81, 0.58 to 0.86, 0.64 to 0.80 and 0.54 to 0.80, respectively. These Cronbach's alphas were based on various past studies completed by Stogdill. Although there were several items at the low end of Cronbach' alpha, this study eliminated any items that did not comply with the cut-off value for loading of communalities and factor analysis. This was to fulfil the acceptable value of its consistency reliability analysis (Nunnally, 1978; Agarwal et al., 1999; Field, 2009) with a minimum of 0.70 (Field, 2009).

For work-related attitude, the items for job satisfaction were adapted from Weiss et al. (1967) and Karia and Asaari (2006); career satisfaction was adapted from Greenhaus et al. (1990) and Karia and Asaari (2006); and organizational commitment was adapted

from Porter et al. (1974), Mowday et al. (1979) and Karia and Asaari (2006). All of these researchers subjected items on the questionnaires to Cronbach's alpha and found them to be within the acceptable limit. Meanwhile regarding work-related attitude, the Cronbach's alpha for job satisfaction, career satisfaction and organizational commitment was 0.87, 0.90 and 0.95, respectively.

3.13.3 Normality

The study's data examines its normality. Normality is used to describe a symmetrical, bell-shaped curve, which has the greatest frequency of scores in the middle, with smaller frequencies towards the extremes (Pallant, 2007). Further, the data's normality can be obtained through its skewness and kurtosis (Pallant, 2007).

In addition, Kolgomorov-Smirnov's statistic is used to examine the data's normality. The variables are tested for univariate normality of distribution using the Kolmogorov-Smirnov test. The normality of the distribution is also tested and supported by the low skewness and kurtosis statistics and the examination of histograms with a super-imposed normal curve.

Further, the actual shape of the data distribution is seen in the histogram. From the histogram, scores appear to be reasonably normally distributed (Pallant, 2007). Thus this study makes use of the visual examination of the histogram chart for assumption of data normality (Field, 2009). The histogram should portray a normal distribution. Moreover, the inspection could also be supported by the normal probability plot of quantile-quantile plot (Q-Q plot) (Pallant, 2007). In addition, Field (2009) suggests normality be inspected by using the probability-probability plot (P-P plot).

3.13.4 Outliers

In the search of outliers, the boxplot output is used. The rectangle represents 50% of the cases, with the whiskers extending to the smallest and largest values. The values outside this range are classified as outliers (Pallant, 2007). This study compares between values of mean and the 5% trimmed mean revealed. The values give an indication of how much of a problem the outlying cases are likely to be (Pallant, 2007). Further, the values are not too different from the remaining distribution as all such cases will be retained in this study.

3.13.5 Frequency Analysis

Frequency analysis is proposed to be used in highlighting the demographic information. The histogram is used to further enhance a clearer picture of respondents' demographic in this study.

3.13.6 Descriptive Analysis

Descriptive analysis is used to gain an impression of the data. Several tests are also employed such as test of normality, outliers and correlation analysis (to explore the internal consistency of the model). The mean score on some continuous variables is compared by using t-test analysis. The result shows whether the variables have a significant difference or no significant difference. For two or more groups, one-way analysis of variance (ANOVA) is used in comparing the mean scores on a continuous variable.

3.14 Justifications for Factor Analysis

Prior to conducting factor analysis, this study follows the initial steps of all variables to ensure the critical assumptions in the factor analysis are satisfied (Hair, Black & Babin, 1998). The following steps are taken in examining the multicollinearity, anti-image correlation, KMO, Bartlett test of sphericity and measure of sampling adequacy.

3.14.1 Multicollinearity

This study considers the issue of multicollinearity where values more than 0.80 or 0.90 in the correlation matrix are considered as having multicollinearity. The correlation matrix scans for low correlation ($r < 0.3$) as well as high correlation ($r > 0.9$). Thus, it is important to avoid variables that are very highly correlated (extreme multicollinearity) and variables that are perfectly correlated. Field (2009) states there is no severe multicollinearity if the correlation coefficient values are less than 0.90. Further, Hutcheson and Sofroniou (1999) state that the value 0.90 can be used as the cut-off point. Finally, variables should not be eliminated if they correlate with other variables and no excess of large correlation coefficient.

Apart from the correlation matrix, the VIF and tolerance value can be used in detecting the issue of multicollinearity. The VIF value of 10 is considered worrisome of having multicollinearity. Further, the tolerance value (1/VIF) with less than 0.10 is considered

having a serious problem with multicollinearity, whereby a value less than 0.20 causes concern (Field, 2009).

3.14.2 Anti-Image Correlation

An anti-image correlation matrix can also be used in detecting the issue on multicollinearity. If the values are more than 0.50 then they are considered good. However, if the value is less than 0.50, the researcher can consider excluding the item from analysis (Field, 2009). In summary of the issue on multicollinearity, Field (2009) states that if PCA is performed, then the researcher need not worry about multicollinearity.

3.14.3 Kaiser-Meyer-Olkin

The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) is recommended to determine whether the study has an adequate sample size for factor analysis (Kaiser, 1974; Field, 2009). The KMO index ranges from 0 to 1 with a minimum of 0.60 suggested for a good factor analysis (Tabachnik & Fidell, 2007). Hutcheson and Sofroniou (1999) state that the KMO values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great, and values above 0.9 are superb. According to Field (2009), the KMO should be a bare minimum of 0.50 for all variables. It is suggested to exclude any variables if the value is below 0.50. On the other hand, the variables have sufficient correlation if they are above 0.50.

3.14.4 Bartlett Test of Sphericity

Bartlett's test of sphericity indicates whether the population correlation matrix is significantly different from an identity matrix (not an identity matrix). If it is significantly different, then overall there is some correlation between variables (there are clusters to find) which should be included in the analysis (Bartlett, 1954). Barlett's test of sphericity should be significant ($p < 0.05$) to indicate that correlations between items are sufficiently large for factor analysis (Tabachnik and Fidell, 2007). Moreover, Bartlett's test of sphericity is highly significant when $p < 0.000$.

3.14.5 Measure of Sampling Adequacy

The measure of sampling adequacy (MSA) is to quantify the degree of inter-correlations among variables. Sample size determines any significant test. Thus the reliability of factor analysis is dependent on sample size and much has been done to highlight the

necessary sample size for factor analysis (Field, 2009). Field (2009) recommends a minimum sample size of 300 cases as a good sample size. A 100 sample size is considered poor. Meanwhile, a 1,000 sample size is considered excellent. This study expects to have approximately 300 cases. Thus, this figure is considered large in sample.

3.15   Factor Analysis

Factor analysis is conducted on the data in grouping and reducing the data. Although the survey instrument is obtained from various literatures, this study considers itself as an exploratory study as they are adapted and adopted to suit this study. The study explores the possibilities on academic leadership and work-related attitude in the context of faculty members in public universities in Malaysia.

Results of the principal component analysis (PCA) are used to examine the study's communalities value. If the value is less than 0.30, the factor is suggested to be dropped from further analysis. As the study embarks on exploratory study, exploratory factor analysis (EFA) is conducted. The purpose of EFA is to identify the latent construct or to generate hypotheses about their possible structures amongst the latent constructs; whereas, the purpose of confirmatory factor analysis (CFA) is to evaluate or develop a better understanding hypothesized structure of the latent constructs. In this study, EFA is used to generate hypotheses among the latent constructs. Field (2009) states EFA gives the understanding on the structure of a set of variables (i.e. latent variables). Further, EFA helps to reduce the possible data while retaining as much information as possible in the study (Field, 2009).

The study of academic leadership and work-related attitude is not much explored by scholars. This study is considered a pioneer in exploring the attributes of academic leadership toward individual faculty members' work-related attitude. As such, the researcher is unable to specify the number of constructs that exist within the data to be analyzed and which specific measures be assigned to each of these constructs. Thus the EFA is best to be used in this study.

3.15.1 Factor Extraction

The number of extractions is based on the Scree Plot, the output from the Monte Carlo PCA for parallel analysis or eigenvalue greater than 1 (Chelladurai & Saleh, 1980). The

cut-off point for determining the study's factors is based on the inflexion of the curve (Cattell, 1966). Further, the eigenvalue represents the amount of variation explained by a factor (variances extracted by the factor). An eigenvalue of 1 represents a substantial amount of variation (Kaiser, 1960; Field, 2009). This study uses Kaiser's criterion which retains all factors with eigenvalue greater than 1.

3.15.2 Factor Rotation

Since this study is exploratory, the varimax rotation is selected in simplifying the factors' interpretation (Field, 2009). Further, Field (2009) states EFA with varimax rotation is performed to identify the factors for measuring academic leadership and work-related attitude. The initial solution is extracted using the PCA method. The method extracts sequential factors which are then rotated and factor loaded to enhance their interpretability by reducing the large set of variables into a more manageable set of scales. Rotational strategy is used to obtain a clear pattern of loading.

The use of varimax rotation is also supported by past studies on leadership (Schriesheim, 1979; Chelladurai & Saleh, 1980; Shakeela, 2004; Khuntia & Suar, 2004; Anderson, Plotnikoff, Raine & Barrett., 2005; Shen & Chen, 2007; Ho & Nesbit, 2009; Ying & Ahmad, 2009; Lo et al., 2009; Ismail, Mohamed, Sulaiman, Mohamad & Yusof, 2011). Moreover, the LBDQ-XII questionnaire used in several studies uses varimax rotation in the data analysis (Sergiovanni, Metzcus & Burden, 1969; Blank, Weitzel & Green, 1990; de Vries, Roe & Taillieu, 1998; Whitney & Lindell, 2000; Sherman, 2002; Jayakody, 2008).

3.15.3 Factor Loading

The significance of factor loading in this study depends on the sample size. Stevens (2002) suggests sample size for a significant factor loading. For the loading value, Field (2009) states that for 50 samples, the factor loading should be 0.722. Subsequently, for 100, 200, 300, 600 and 1,000, the factor loading should read 0.512, 0.364, 0.298, 0.210 and 0.162, respectively.

The factor loading of this study is considered significant if the loading is above 0.30 (Hair et al., 2010). Item loadings of less than 0.30 are deleted. Further, cross loading with item loadings of more than 0.30 on two or more factors are also deleted. This is in accord with Chelladurai and Saleh (1980) where they set the criteria for selecting the

items as having its highest loading on the same factor and loading should be higher than 0.30 at least.

In examining past studies, the factor loading cut-off value varies between studies. The various cut-off values for factor loading identified are 0.50 (Sherman, 2002; Shen & Chen, 2007; Lo et al., 2009), 0.40 (Chelladurai & Saleh, 1980; Blank et al., 1990; Ling, Chia & Fang, 2000; Shahin & Wright, 2004; Anderson et al., 2005; Xirasagar, 2009; Ismail et al., 2011), 0.35 (Houghton & Neck, 2002; Ho & Nesbit, 2009), and 0.30 (Hamlin, 2002; Selvarajah & Meyer, 2006; Ying & Ahmad, 2009).

3.16   Regression Analysis

Regression analysis includes techniques for modelling and analyzing several variables. The focus is on the relationship between independent and dependent variables. Regression analysis helps to understand changes that occur on independent variables and dependent variables. In testing the main hypotheses, the simple regression analysis is used. Meanwhile for hypotheses 1 to 4 and its sub-hypotheses, multiple regressions are employed.

3.16.1 Simple Regression Analysis

Simple regression is used to examine the main hypothesis of the study. Bivariate linear regression is used when there is only one independent variable and one dependent variable. The analysis gives the straight line that best fits the data on a scatter plot.

The purpose of regression analysis is to test the relationship between academic leadership and work-related attitude toward determining their significance of F-statistics with the R^2. R^2 indicates the explanatory power of the study's research framework. R^2 is supposed to have a high explanatory power (Selvarajah & Meyer, 2008). On the other hand, if this study shows a low R^2 then it shows that other constructs should be considered. Overall, the R^2 of the studies in leadership is relatively low (Blank et al., 1990). Thus this study also expects R^2 to be low.

Meanwhile, the standardized coefficients (Beta value) mean that the values for each of the different variables are converted to the same scale. If it is significant at 0.01 the Beta value of academic leadership indicates the amount of contribution needs to explain the work-related attitude (Field, 2009).

3.16.2 Multiple Regression Analysis

Multiple regression involves more than one independent variable. Multiple regression analysis is used in this study to test the relationship between each independent variable and four dependent variables. The analysis also examines the impact between independent variables and four dependent variables. In this study, the theoretical framework has not much been developed as for this study to apply the analysis of moderated multiple regression (MMR) and confirmatory factor analysis (CFA) on academic leadership and work-related attitude. Further, the association between academic leadership and work-related attitude constructs are not much explored by scholars. Thus, MMR and CFA are justified not to be used in the study's analysis.

Multiple regression analysis is conducted to examine the strength of hypotheses 1 to 4 and the sub-hypotheses in their relationship between academic leadership and work-related attitude. The data of the study is examined using various types of multiple regression methods such as enter, stepwise, backward and forward. In this avenue, the statistical programme examines and selects which independent variables enter and in which order they go into the equation (Pallant, 2007).

> *Enter Method:* The enter method is called the simultaneous method where the researcher specifies the set of predictor variables that make up the model. The success of this model in predicting the criterion variable is then assessed (Brace, Kemp & Snelgar, 2009).

> *Stepwise Method:* The stepwise method is the most sophisticated of the statistical methods (Brace et al., 2009). Each variable is entered in sequence and its value assessed. If adding the variable contributes to the model then it is retained, but all other variables in the model are then re-tested to see if they are still contributing to the success of the model. If they no longer contribute significantly they are removed. Brace et al. (2009) conclude that the method should ensure that you end up with the smallest possible set of predictor variables included in your model.

> *Forward Method:* The forward method enters the variables into the model one at a time in an order determined by the strength of their correlation with the criterion variable. The effect of adding each is assessed as it is entered,

and variables that do not significantly add to the success of the model are excluded (Brace et al., 2009).

Backward Method: The backward method enters all the predictor variables into the model (Brace et al., 2009). The weakest predictor variable is then removed and the regression re-calculated. If this significantly weakens the model then the predictor variable is re-entered – otherwise it is deleted. This procedure is then repeated until only useful predictor variables remain in the model.

In running the multiple regression analysis, the sample size is important for a reliable regression model. Moreover, a sample size of 200 is always sufficient in expecting a medium effect in the multiple regression analysis (Miles & Shevlin, 2001). Also, the study carries out the preliminary analyses to ensure that there are no violations of the assumptions of normality, linearity, multicollinearity and homoscedasticity.

The most common measures for checking on multicollinearity are the variance inflation factor (VIF) and tolerance. The VIF indicates whether a predictor has a strong linear regression with the other predictors. The assumption is of no multicollinearity if the VIF value follows the suggested value for the good VIF which is not greater than 10 and the average is not greater than 1 (Myers 1990; Bowerman & O'Connell, 1990). The tolerance (1/VIP) for each predictor should not be less than 0.1.

The normality of data in this study is checked for univariate normality of the distribution using the Kolmogorov-Smirnov test. The normality of the distribution is also tested and supported by the low skewness and kurtosis statistics and the examination of histograms with a super-imposed normal curve.

The threat of heteroscedasticity is checked by examining the residual plot of the actual standardized residual values of the dependent variable against the predicted residual values. The scatter plot of the standard residual shows the graph of the data which display the points as randomly and evenly dispersed throughout the plot. This indicates the assumption of linearity and homoscedasticity have been met. The residual is a roughly rectangular distribution, with most scores concentrated in the centre of 0 point which are displayed in the scatter plot of less than 3.3 or more than -3.3 (Tabachnick &

Fidell, 2007). The presence of outlier cases can be detected if a standardized residual is not within this limit.

3.17 Pilot Study

The pilot studies were conducted after the formation of the questionnaire. The pilot studies were used to justify the content validity, criterion validity and construct validity. Through pilot studies, the questionnaires could be improved in terms of the wording clarity. Inputs were obtained from respondents' comments as they answered the questionnaire. Moreover any unclear questions also could be improved and clarified prior to the actual data collection.

The pilot questionnaires were distributed in the School of Distance Education (SDE), Universiti Sains Malaysia and University of Hull. The pilot questionnaires were given to the faculty members of SDE and students through e-mail. Prior to piloting the questionnaires, written approval was requested from the Dean of SDE and the ethics committee.

The pilot questionnaires were examined by using the Statistical Programme for Social Sciences (SPSS). The analysis of the pilot questionnaires were used frequencies, reliability test and factor analysis. Reliability test was undertaken to ensure the components of items were at the acceptable rate of Cronbach's alpha. If necessary, certain items were excluded from the actual questionnaire. Further, factor analysis was conducted to ensure the data was a meaningful, interpretable and manageable set of factors. Thus factor analysis gave factors with the correct variables loading on each factor, confirming the study had measured the concepts correctly (Sekaran, 2003).

3.17.1 Pilot Study No.1

The first pilot study was conducted on 20 faculty members and students. The questionnaire was emailed to the school's administration for onward transmission to faculty members. A similar questionnaire was also distributed to students. This pilot study was to determine the time required to complete the questionnaire. From this pilot, the questionnaire was criticized for improvement in terms of wording, clarity, and choice of words. This was to ensure the respondent has a good understanding of the questions asked in the questionnaire. The questionnaire required 15-20 minutes to be

completed. Subsequently, the questionnaire was improved based on understanding and clarity of wording, distributed for the second pilot study.

3.17.2 Pilot Study No.2

The second pilot study was emailed to the selected respondents at the SDE. The selected faculty members were those whom were identified as not involved in the first pilot study. This identification was based on no submission of questionnaire from them. The purpose of the second pilot study was to determine any ambiguity of the statements in the questionnaire. Similarly, it sought comments from respondents on the wording, clarity and understanding of the questions. The questionnaires were entered into the SPSS statistical programme for analysis. The analysis conducted a reliability analysis. This analysis was to determine the level of Cronbach's alpha for items in the questionnaire.

Table 3.9: Reliability Analysis for Pilot Study No.2

Item (No of Questions)	Item No.	Earlier Cronbach's Alpha (Pilot No.1)	Items Revised	Revised Cronbach's Alpha (Pilot No.2)
Visionary (10)	A: 1,7,13,19,25,31,35, 39,44,47	0.77	44	0.83
Adapt to Change (10)	A: 2,8,14,20,26,32,36, 40,45,48	0.44	45,36,14,40	0.81
Competency (5)	A: 3,9,15,21,27	-0.50	9,3,15	0.87
Effective Leadership (10)	A: 4,10,16,22,28,33, 37,41,42,49	0.66	42,33,16,28	0.80
Transformational Leadership (10)	A: 5,11,17,23,29,34, 38, 43, 46,50	0.67	11,17,50	0.77
Charisma (5)	A: 6,12,18,24,30	0.70	12	0.88
Job Satisfaction (10)	B: 1-10	0.74	4	0.82
Career Satisfaction (5)	B: 11-15	0.59	12,15,11	0.81
Organizational Commitment (10)	C: 1-10	0.92	Nil	0.92

The reliability analysis for academic leadership components revealed visionary's Cronbach's alpha of 0.77. Cronbach's alpha for adaptable to change was 0.44, competency was 0.50, effective leadership was 0.66, transformational leadership was

0.67, and charisma was 0.70. Meanwhile work-related attitude revealed Cronbach's alpha for job satisfaction as 0.74, career satisfaction as 0.59, and organizational commitment as 0.92. According to Pallant (2007), Cronbach's alpha that read a value 0.77 was considered acceptable, a value of 0.80 wass preferable, and a value of 0.89 was very good internal consistency.

In order to have a preferable Cronbach's alpha value reliability analysis was conducted repeatedly in deducting the suggested item by the SPSS. By dropping item 44 of visionary, Cronbach's alpha value increased to 0.83. For adaptable to change, when items 45, 36, 14 and 40 were dropped, then the Cronbach's alpha value read as 0.81. For competency, when items 9, 3 and 15 were dropped, Cronbach's alpha value read as 0.87. Meanwhile effective leadership needed to drop items 42, 33, 16 and 28, thus attaining Cronbach's alpha value of 0.80. For charisma, item 12 was dropped to attain a Cronbach's alpha value of 0.88. On the other hand, transformational leadership needed to drop items 11, 17 and 50 to attain the highest Cronbach's alpha value of 0.77. The Cronbach's alpha value for transformational leadership cannot reached the level of 0.80 after conducting several reliability analyses on the items.

Similarly for work-related attitude, job satisfaction needed to drop item 4 in attaining a Cronbach's alpha value of 0.82. Career satisfaction needed to drop items 12, 15 and 11 to gain a Cronbach's alpha value of 0.81. Meanwhile, organizational commitment did not need to drop any item as the Cronbach's alpha value was considered as very good internal consistency (Pallant, 2007) at 0.92.

The reliability analysis gave a reading of Cronbach's alpha value in determining the internal consistency of the questionnaire. For this study, it kept the items proposed to be dropped to attain more than an acceptable value to be asked in the questionnaire. Instead, each item proposed to be dropped was revisited for revision of wording, clarity and understanding.

3.18   Research Process
In realizing this research, this study proposed the following research process as the research progress and development. This research process took place in the year of 2010. Two pilot studies were proposed in May and June. These pilot studies were used

to examine the questionnaires before it was distributed to faculty members in public universities in Malaysia.

In June and July, this study contacted faculty administrators from public universities in Malaysia to be interviewed. They were contacted using email and telephone. These interviews were important to obtain quantitative data from the interviews.

Figure 3.1: Study's Timeline

2010					
May	Jun	Jul	Aug	Sep	Oct
Pilot 1	**Pilot 2**				
	Interview **Appointments**				
			Fieldwork Interview		
			Questionnaire		

In August and September, the fieldwork was conducted. During the fieldwork, structured interviews were conducted with faculty administrators whom had agreed to be interviewed. Concurrently, questionnaires were distributed to faculty members of public universities in Malaysia. The questionnaires were collected until October. Figure 3.1 shows the research process of this study between May and October 2010.

3.19 Summary

The construction of structured interview protocol is to obtain an answer to the first two research questions set in the earlier chapter. Meanwhile, the survey questionnaire tries to obtain an answer for the remaining two research questions. The survey findings and structured interview are discussed in the following two chapters.

CHAPTER 4: SURVEY FINDINGS

4.1   Introduction

The purpose of this chapter is to present the survey findings of data collection as applicable to faculty members in public universities. The data gathered from the lecturers is analyzed to test the research hypotheses. The first section of this chapter summarizes the response rate to the questionnaire. The second section presents the descriptive statistics for the demographic characteristics gathered by the respondent in an online survey. The results are presented in the form of summary measures using frequency distribution. The factor analysis of independent variable of academic leadership and dependent variable of work-related attitude is elaborated. The reliability analysis is conducted to assess the reliability of the measures. Correlations are calculated to identify any preliminary relationship among the latent or unobservable variables examined. Regression analyses are conducted to test the relationship and determine the effects of the relationships among academic leadership and work-related attitude. Further, the relationship between the independent variable of academic leadership with a dependent variable of work-related attitude is analyzed using regression analysis. Data collected from the survey are prepared for subsequent analyses by completing several preliminary steps before testing hypotheses.

The purpose of the survey is to seek answers on the remaining two research questions, Research Question 3 and 4, as indicated in the earlier chapter:

1. RQ3: What is the relationship between academic leadership and faculty work-related attitude?
2. RQ4: What is the impact of academic leadership on faculty work-related attitude?

4.2   Response Rate

The survey link was sent by an invitation e-mail to 1,000 lecturers in the 20 public universities in Malaysia. Data mining of email addresses was conducted from the public universities websites on their faculty members' web page.

The first invitation was emailed to all respondents. A total of 112 responses were received from the first email invitation. A follow up email was initiated after three

weeks from the first invitation. The second invitation was emailed to a similar list of faculty members. From the second email invitation, this study obtained an additional 187 responses. Thus a total of 299 responses were collected online, representing a response rate of almost 30%. Unfortunately, 38 responses were needed to be eliminated due to an incomplete and excessive amount of missing data. Thus, clean data of 261 was processed by using the SPSS Version 18. The data were coded and analyzed for empirical investigation.

The 30% response rate was considered acceptable in conducting the survey in Malaysia. In general, the response rate on the leadership survey in Malaysia was in the range of 28% to 76% (Zabid & Alsagoff, 1993; Manshor et al., 2002; Yiing & Ahmad, 2008; Jogulu & Wood, 2008). The low response rate of this study was due to low participation among lecturers in the public universities of Malaysia. Some respond that they have no interest in answering the survey. This non-interest may be due to their misconception that they need to hold an administrative function at the university.

This survey was conducted online using the premium services from www.surveymonkey.com. Some participants did not want to receive an emailed, online survey and use voluntary e-mail address blockage for non-participation from the www.surveymonkey.com website. Due to the voluntary blockage, the survey did not reach the specified e-mail recipient. Review claimed that online survey methods could have the potential to obtain higher quality data with lower non-response rates and at a lower cost than traditional methods (Dilman, 2000; Kim & Hancer, 2010). Further, by using online methods, this study should consider the technical problems, timing of follow-up waves, confidentiality concerns and misidentification for the survey as spam (Sills & Song, 2002; Kim & Hancer, 2010).

4.3   Respondent Characteristics

Respondent characteristics can provide a clear picture for the study. Respondent characteristics are discussed regarding gender, age, rank, academic discipline, administrative position, research/consultancy involvement and working experience.

4.3.1 Gender

The questionnaire responses consist of 111 males (45.3%) and 134 females (54.7%). The overview is shown in Figure 4.1.

Figure 4.1: Gender
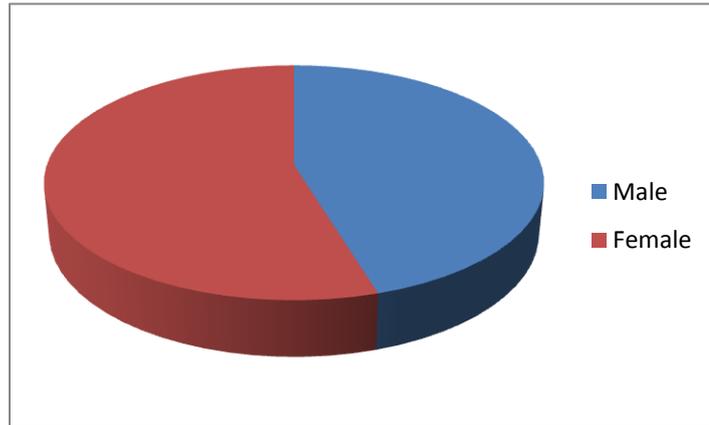
4.3.2 Marital Status

The majority of the respondents are married as indicated by 216 respondents (89.6%). Meanwhile single respondents comprise 23 people (9.5%). The overview is shown in Figure 4.2.

Figure 4 2: Marital Status
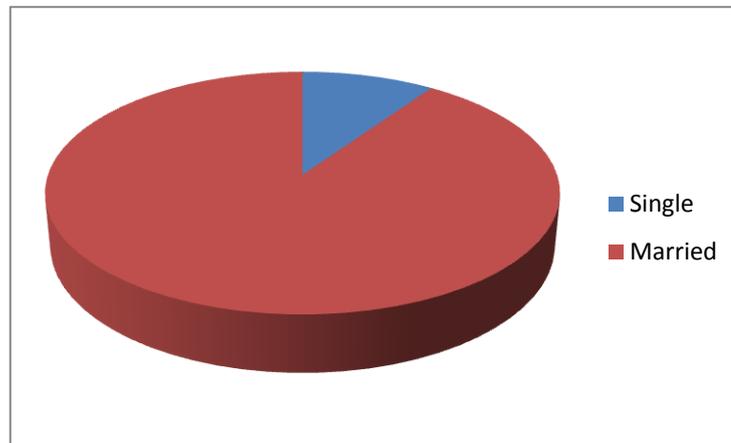
4.3.3 Ethnicity

In Malaysia there are three major ethnic groups known as Malays, Chinese and Indians. In this study, Malays respondents total 214 (87.7%), Chinese total 11 (4.5%) and Indians total nine (3.7%). The overview is shown in Figure 4.3.

Figure 4.3: Ethnics
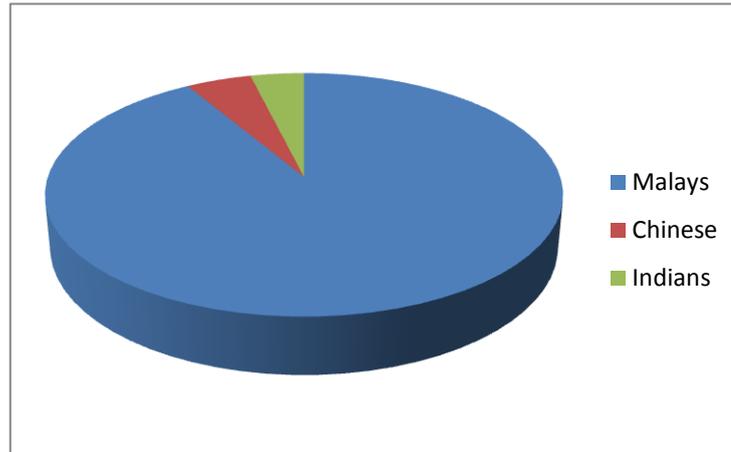
4.3.4 Age

Respondents' age is categorised into 30 and under with 21 respondents (8.6%), 31-35 years old with 56 respondents (23%), 36-40 years old with 39 respondents (16%), 41-45 years old with 42 respondents (17.2%), 46-50 years old with 46 respondents (18.6%), 51-55 years old with 22 respondents (9%) and age of 56 and over with 18 respondents (7.4%). The overview is shown in Figure 4.4.

Figure 4.4: Age
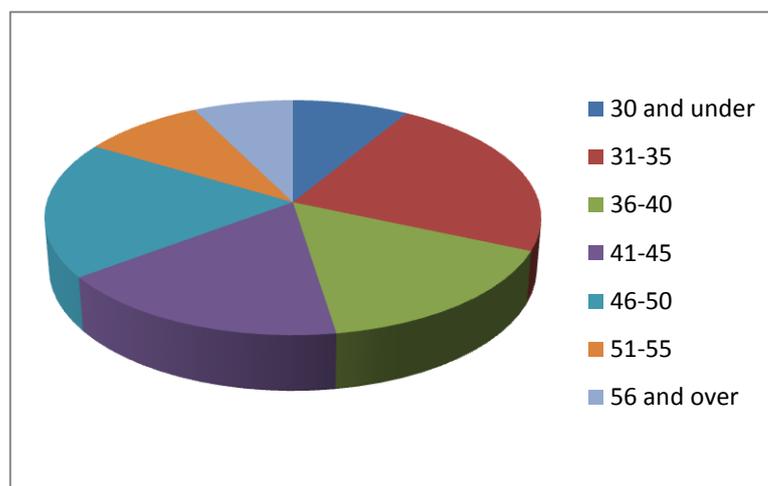
4.3.5 Rank

Respondents are asked their rank at the university, lecturers are represented by 92 respondents (38.5%), senior lecturers 85 respondents (35.6%), assistant professors eight respondents (3.3%), associate professors 30 respondents (12.6%) and professors 24 respondents (10%). The overview is shown in Figure 4.5.

Figure 4.5: Rank
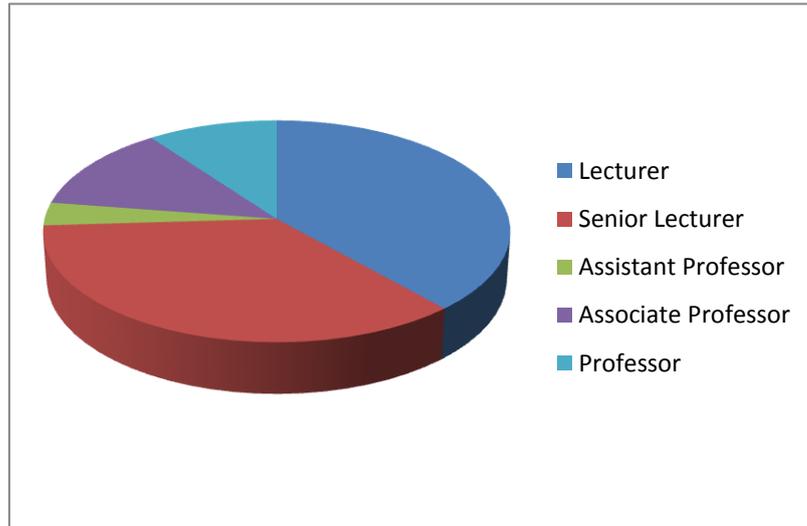
4.3.6 Academic Qualification

Respondents' highest academic qualification, bachelor degree holders number four respondents (1.7%), master degree holders number 106 respondents (44.9%) and PhD holders number 125 respondents (53%). The overview is shown in Figure 4.6.

Figure 4.6: Academic Qualification
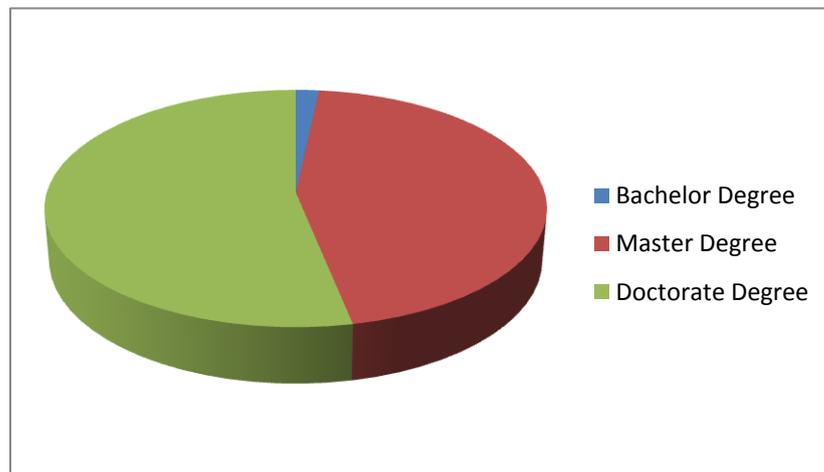
4.3.7 Academic Discipline

Respondents are asked for their academic discipline. Pure sciences consist of 20 respondents (8.4%), applied sciences 109 respondents (45.8%), pure arts nine respondents (3.8%) and applied arts 100 respondents (38.3%). The overview is shown in Figure 4.7.

Figure 4.7: Academic Discipline
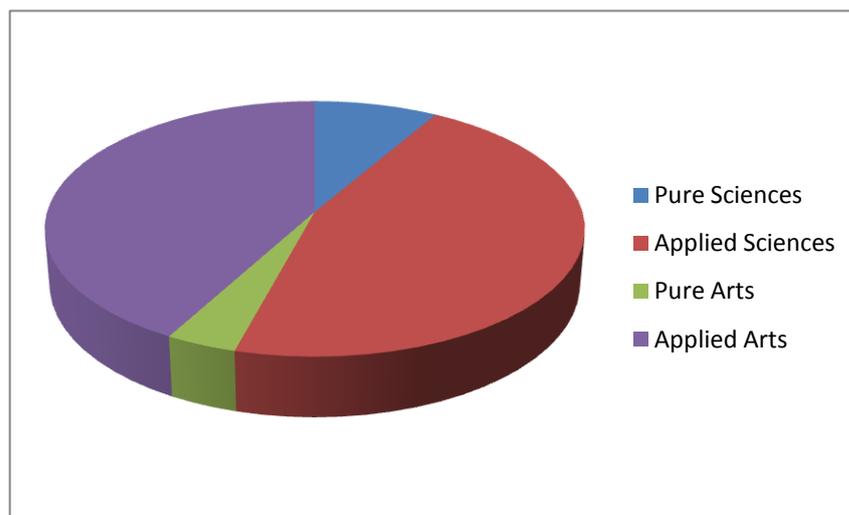
4.3.8 Administrative Position

Respondents with an administrative position as programme chairperson are represented by 72 respondents (29.5%), deputy director 10 respondents (4.1%), deputy dean 14 respondents (5.7%), director 12 respondents (4.9%) and dean 20 respondents (8.2%). Further respondents without any administrative position consist of 105 respondents (43%). The overview is shown in Figure 4.8.

Figure 4.8: Administrative Position
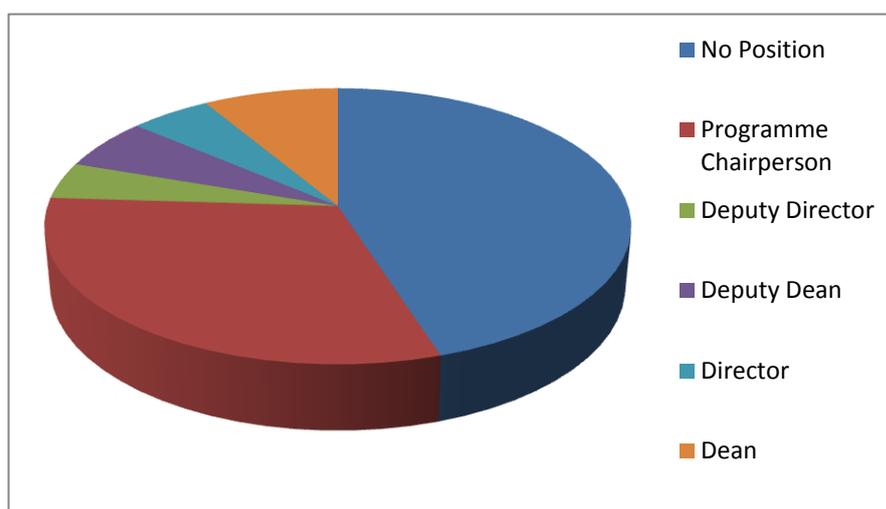
4.3.9 Leadership Training

Most of the respondents indicate that they undertook leadership training on between one to three occasions between the years of 2008 to 2010 (n=112; 45.7%). Of the remaining respondents 44 (18%) indicate training sessions of four to six times, seven respondents

(2.7%) indicate seven to nine times and 12 respondents (4.9%) indicate more than 10 times were. Interestingly, 70 respondents (28.6%) claim they have had no leadership training in the period of 2008 to 2010. The overview is shown in Figure 4.9.

Figure 4.9: Leadership Training
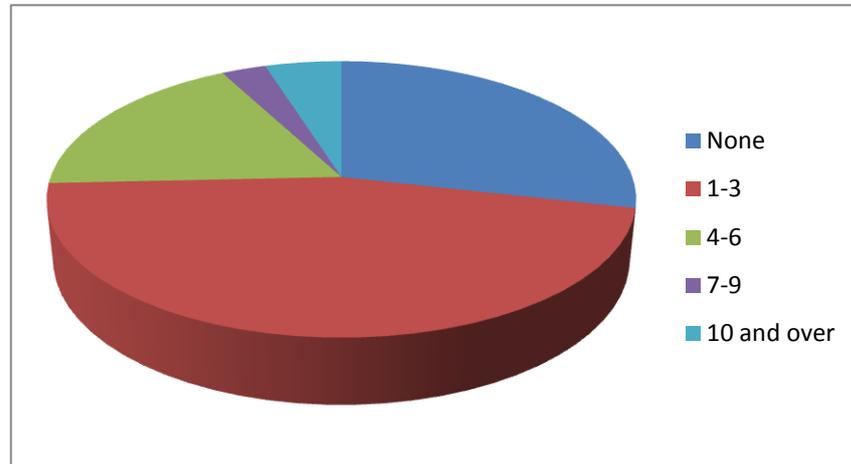
4.3.10 Research/Consultancy

Respondents are asked for their involvement in research and/or consultancy groups. Respondents who are involved in a research as individuals and groups total 126 respondents (52.1%). 72 respondents (29.8%) are involved in a research group only. Meanwhile, individuals who work solo total 28 respondents (10.7%). The overview is shown in Figure 4.10.

Figure 4.10: Research/Consultancy Involvement
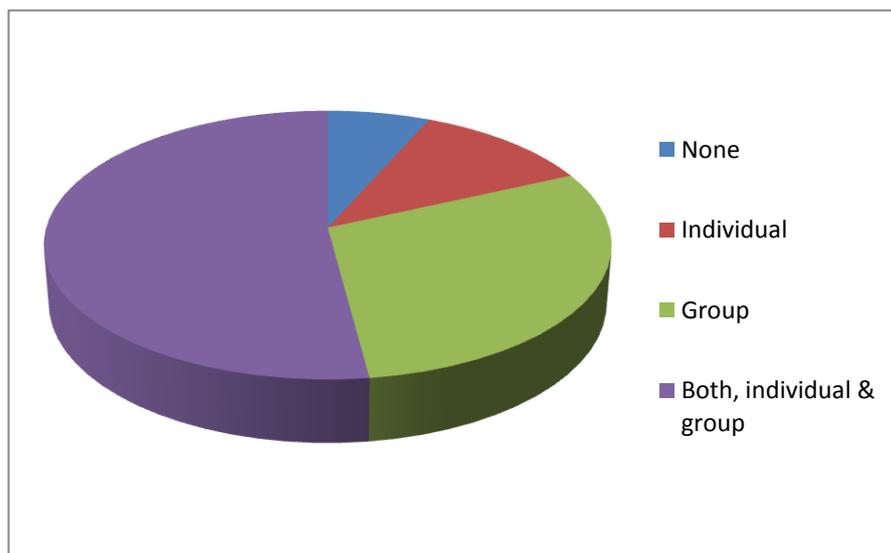
Further, respondents who are leaders in the research/consultancy groups number 118 respondents (54.4%). On the other hand, 96 respondents (44.2%) are a member of a research/consultancy group. The overview is shown in Figure 4.11.

Figure 4.11: Leader-Member Involvement Type
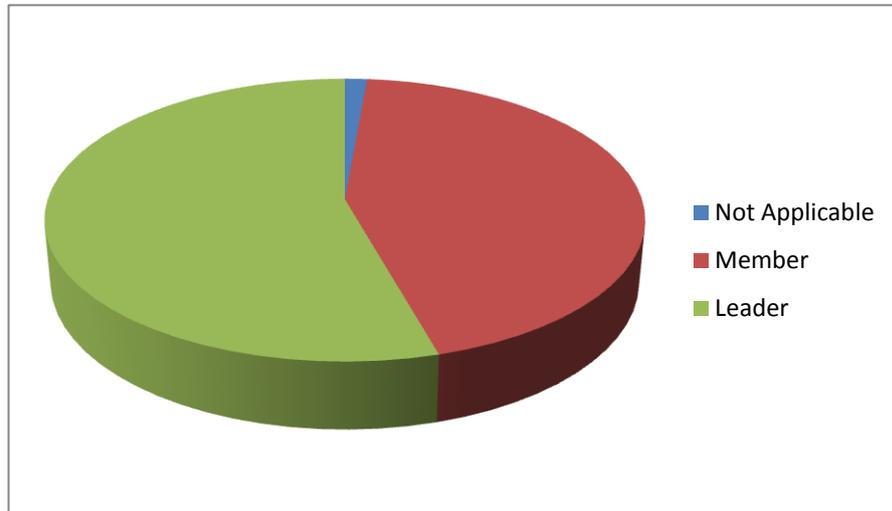
4.3.11 Working Experience

Working experience of respondents is sought regarding their present organization, other public organizations and private organizations. Respondents who work at their present organization indicate their working experience as 1-8 years total 169 respondents (64.8%), 9-16 years total 61 respondents (23.4%), 17-24 years total 25 respondents (9.6%) and 25-32 years total six respondents (2.3%). The overview is shown in Figure 4.12.

Figure 4.12: Working Experience (Overall)
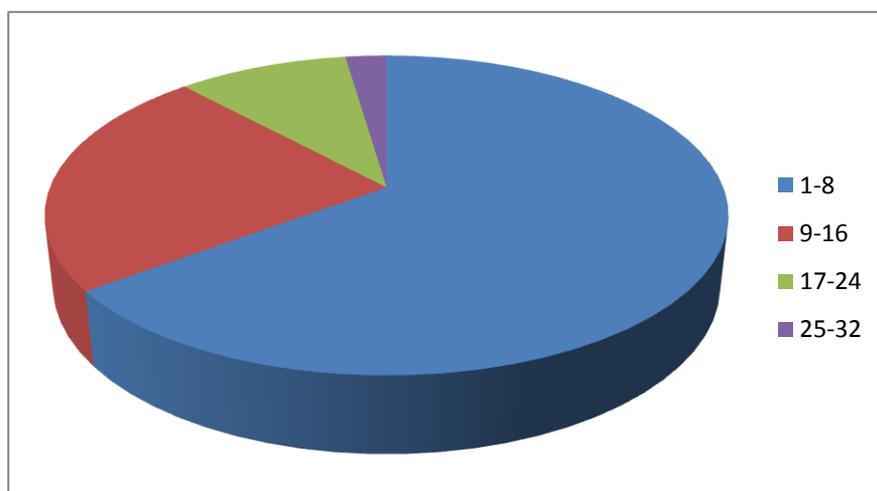
Respondents stating their working experience with other public organizations as 1-8 years total 231 respondents (88.5%), 9-16 years 19 respondents (7.3%), 17-24 years seven respondents (2.7%) and 25-32 years four respondents (1.5%). The overview is shown in Figure 4.13.

Figure 4.13: Work Experience in Public Organizations
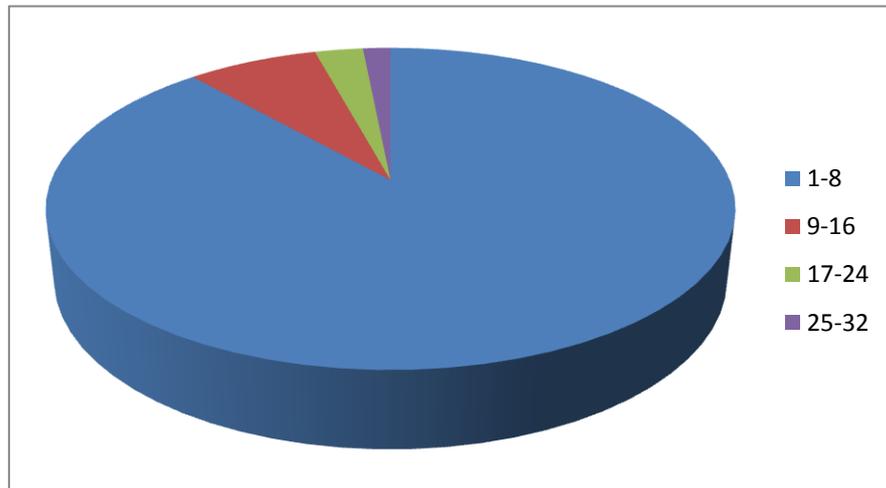
Further almost 97% of respondents indicate that they have worked in private organizations between 1-8 years (n=252). The balance of nine respondents (3.4%) indicates that they worked in private organizations for between 9-16 years. The overview is shown in Figure 4.14.

Figure 4.14: Work Experience in Private Organizations
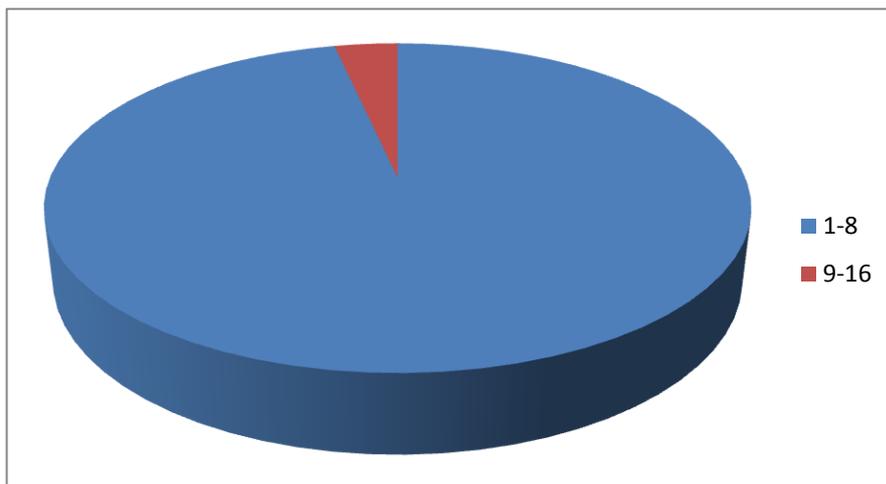
4.4 Preliminary Analysis

The initial step to data analysis is to prepare the data for subsequent analyses. Data preparations involving editing, coding and data entry are necessary to transform raw data into a form that are appropriate for analysis.

4.4.1 Descriptive Statistics

Table 4.2 shows the mean, standard deviation, skewness and kurtosis of independent variables and dependent variables, respectively. The majority of the loadings in Table 4.1 are low. Thus from these observations, the collected data are robust, representative of the samples and normal.

Table 4.1: Overview of Survey Data

	N	Min	Max	Mean	S.D.	Skewness	Kurtosis
(VY1) I do make motivational talks to stimulate members	260	2	5	3.958	0.792	-0.958	1.024
(VY2) I put convincing arguments among members	260	2	5	3.854	0.742	-0.846	0.959
(VY3) I do influence members on my point of view	258	2	5	3.616	0.880	-0.618	-0.413
(VY4) I am a very persuasive talker	257	2	5	3.405	0.838	0.124	-0.539
(VY5) I am very skilful in an argument	260	2	5	3.281	0.853	0.103	-0.680
(VY6) I am a convincing talker	259	2	5	3.429	0.820	-0.045	-0.541
(VY7) I do speak with a strong inner confidence	259	3	5	3.931	0.600	0.026	-0.220
(VY8) I do inspire members through talking	259	3	5	4.000	0.610	0.000	-0.284
(VY9) I do schedule the work to be done	261	2	5	3.341	0.921	-0.253	-1.094
(VY10) I can inspire enthusiasm among members on a project	261	3	5	3.908	0.594	0.028	-0.197
(AC1) I do wait patiently for the results of a decision	261	2	5	3.713	0.812	-0.861	0.273
(AC2) I become anxious when I cannot find out what is coming next	261	2	5	3.774	0.831	-0.689	0.105
(AC3) I can accept defeat in a calm way	257	2	5	3.872	0.709	-0.804	1.118
(AC4) I can accept delays without being upset	258	2	4	3.004	0.884	-0.008	-1.726
(AC5) I become anxious when waiting for new developments	260	2	5	3.577	0.873	-0.501	-0.516
(AC6) I am able to tolerate postponement and uncertainty	260	2	5	3.323	0.940	-0.265	-1.198
(AC7) I am patient to wait for an outcome	258	2	5	3.651	0.800	-0.893	0.159
(AC8) I do remain calm in facing uncertain situations	258	2	5	3.798	0.742	-0.752	0.668
(AC9) I am able to delay action until the proper time	261	2	5	3.609	0.780	-0.809	0.032
(AC10) I am positive about the outcome of any new procedure	260	3	5	3.969	0.555	-0.014	0.277
(CY1) I am able to handle complex problems	259	3	5	3.985	0.570	-0.002	0.108

(CY2) I am managing based on the information available	261	2	5	3.950	0.842	-0.996	0.783
(CY3) I do get my works organized	256	2	5	4.066	0.735	-0.940	1.476
(CY4) I can reduce mad house to system and order	260	2	5	3.565	0.708	-0.069	-0.214
(CY5) I am manageable when too many demands are made of me	260	2	5	3.658	0.742	-0.783	0.314
(EL1) I allow members a complete freedom in their work	261	3	5	3.996	0.642	0.003	-0.548
(EL2) I permit members to use their own judgement in solving problems	258	3	5	4.151	0.548	0.075	0.080
(EL3) I do encourage idea contributions by members	255	4	5	4.455	0.499	0.182	-1.982
(EL4) I do let members to work the way they think best	260	3	5	4.131	0.554	0.050	0.090
(EL5) I do assign a task for members to handle	259	3	5	4.031	0.563	0.009	0.184
(EL6) I allow members to do the job with minimal supervision	259	2	5	4.008	0.641	-1.253	3.467
(EL7) I do allow members any freedom of action	258	3	5	3.984	0.536	-0.014	0.519
(EL8) I do allow members a high degree of initiative	261	3	5	4.199	0.510	0.278	0.100
(EL9) I do encourage members to exercise good judgment	261	3	5	4.241	0.488	0.488	-0.218
(EL10) I do allow members to set their own pace	261	2	5	3.774	0.859	-0.870	0.218
(TL1) I let members know what are expected of them	261	3	5	4.222	0.545	0.089	-0.207
(TL2) I do encourage the use of work procedures	258	2	5	4.112	0.683	-0.959	2.117
(TL3) I do share my ideas among members	257	3	5	4.389	0.534	-0.012	-1.052
(TL4) I do make my attitudes clear to members	259	3	5	4.112	0.512	0.171	0.602
(TL5) I do decide what and how shall the job be done	259	2	5	3.641	0.875	-0.735	-0.272
(TL6) I do assign members to particular tasks	259	3	5	4.062	0.494	0.138	1.055
(TL7) I do make sure that my part among members is understood	260	3	5	4.104	0.466	0.354	1.289
(TL8) I do schedule the work to be done	260	3	5	4.100	0.532	0.096	0.413
(TL9) I do maintain standards of performance on members	261	3	5	4.000	0.541	0.000	0.466
(TL10) I do ask member to follow rules and regulations	259	3	5	4.135	0.572	0.004	-0.076
(CH1) I act as the spokesman of members	260	2	5	3.535	0.931	-0.246	-0.821
(CH2) I let others know about the members' activities	258	2	5	3.895	0.728	-0.752	0.924
(CH3) I do speak as a representative of members	255	2	5	3.741	0.885	-0.568	-0.300
(CH4) I do speak for members when visitors are present	260	2	5	3.577	0.882	-0.491	-0.548
(CH5) I do represent members at outside meetings	259	2	5	3.656	0.903	-0.602	-0.434
(JS1) I am satisfied the way I handle my colleagues	261	2	5	3.770	0.734	-0.902	0.864
(JS2) I am satisfied on my competence in making decision	261	3	5	3.966	0.529	-0.039	0.605
(JS3) I am satisfied that my job provides me a steady employment	261	3	5	4.134	0.602	-0.063	-0.323

(JS4) I am satisfied having the chance to tell people what to do	259	2	5	3.776	0.770	-0.567	0.212
(JS5) I am satisfied having the change to do something that makes use of my abilities	260	3	5	4.185	0.612	-0.126	-0.470
(JS6) I am satisfied with the amount of pay received	260	1	5	3.515	1.004	-0.689	-0.182
(JS7) I am satisfied with the amount of work I do	260	2	5	3.638	0.879	-0.704	-0.311
(JS8) I am satisfied with the chances for advancement of this job	260	2	5	3.681	0.893	-0.605	-0.359
(JS9) I am satisfied with the working conditions	259	2	5	3.703	0.894	-0.691	-0.254
(JS10) I am satisfied with the feeling of accomplishment I get from the job	259	2	5	3.903	0.823	-0.830	0.513
(CS1) I am satisfied with the success I have achieved in my career	259	2	5	3.633	1.016	-0.512	-0.888
(CS2) I am satisfied with the progress I have made toward achieving my overall career goals	259	2	5	3.618	1.018	-0.468	-0.932
(CS3) I am satisfied with the opportunity to develop my skills	259	2	5	3.834	0.906	-0.799	-0.008
(CS4) I am satisfied with the utilization of my skills	257	2	5	3.743	0.933	-0.599	-0.447
(CS5) I am satisfied with my quite high quality of work	259	2	5	3.826	0.879	-0.621	-0.161
(OC1) I am willing to put in a greatest del of effort beyond that normally expected in order to help this organization be successful	257	2	5	4.144	0.728	-0.840	1.114
(OC2) I talk up this organization to my friends as a great organization to work for	257	2	5	3.813	0.836	-0.606	-0.002
(OC3) I feel very loyal to this organization	257	2	5	3.984	0.866	-0.661	-0.098
(OC4) I would accept almost any type of job assignment in order to keep working for this organization	257	2	5	3.416	0.924	-0.142	-0.908
(OC5) I find that my values and the organization's values are very similar	257	2	5	3.440	0.938	-0.210	-0.942
(OC6) I am proud to tell others that I am part of this organization	256	2	5	3.984	0.894	-0.699	-0.149
(OC7) This organization really inspires the very best in me in the way of job performance	257	2	5	3.611	0.954	-0.348	-0.803
(OC8) I am extremely glad that I chose this organization to work for over others I was considering at the time I joined	254	2	5	3.894	0.848	-0.656	0.040
(OC9) I really care about the fate of this organization	257	3	5	4.183	0.663	-0.220	-0.753
(OC10) For me, this is the best of all possible organization for which to work	253	2	5	3.664	0.997	-0.279	-0.956

Note:

VY = Visionary   JS = Job satisfaction
AC = Adaptable to change   CS = Career satisfaction
CY = Competency   OC = Organizational commitment
EL = Effective leadership
TL = Transformational leadership
CH = Charisma

4.4.2 Test of Normality

The normality of the data is also examined using the Test of Normality from the result of the Kolmogorov-Smirnov statistics. The Kolmogorov-Smirnov result reveals all items with a significant value of 0.00 which suggest violation of the assumption of normality (Pallant, 2007). This reading is quite common in larger samples. On the other hand, the Normal Q-Q Plots giving observations of all scores appears to be reasonably normally distributed (Pallant, 2007). The observation is depicted in Appendix 4.

4.4.3 Outliers

In the search of outliers, the comparison between values of mean and the 5% trimmed mean revealed all items differences ranges between -0.024 to 0.063 for independent variables and -0.009 to 0.059 for dependent variables. The values give an indication of how much of a problem the outlying cases are likely to be (Pallant, 2007). Further, the values are not too different from the remaining distribution and, as such, all cases are retained in this study. The values are presented in Appendix 5.

4.4.4 Correlation Analysis

This study uses correlation analysis to examine the strength and direction of associations among the variable in the study. In turn this examination will ascertain that the scale has fully and unambiguously captured the underlying unobservable construct it intended to measure.

<u>Visionary</u>

For visionary, the correlation coefficient values between variable and visionary are between 0.59 and 0.80. The correlation among items is considered large (Cohen, 1988; Pallant 2007). The construct is intended to measure visionary. Further, all correlation coefficients are statistically significant at the 0.01 level. Table 4.2 shows the correlations between items and construct of visionary.

Table 4.2: Pearson's Correlation Matrix for Visionary

(VY1) I do make motivational talks to stimulate members	Pearson Correlation	.598[**]
	Sig. (2-tailed)	.000
(VY2) I put convincing arguments among members	Pearson Correlation	.691[**]
	Sig. (2-tailed)	.000
(VY3) I do influence members on my point of view	Pearson Correlation	.589[**]

	Sig. (2-tailed)	.000
(VY4) I am a very persuasive talker	Pearson Correlation	.792**
	Sig. (2-tailed)	.000
(VY5) I am very skilful in an argument	Pearson Correlation	.703**
	Sig. (2-tailed)	.000
(VY6) I am a convincing talker	Pearson Correlation	.798**
	Sig. (2-tailed)	.000
(VY7) I do speak with a strong inner confidence	Pearson Correlation	.675**
	Sig. (2-tailed)	.000
(VY8) I do inspire members through talking	Pearson Correlation	.674**
	Sig. (2-tailed)	.000
(VY9) I do schedule the work to be done	Pearson Correlation	.595**
	Sig. (2-tailed)	.000
(VY10) I can inspire enthusiasm among members on a project	Pearson Correlation	.642**
	Sig. (2-tailed)	.000

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

<u>Adaptable to Change</u>

For adaptable to change, the correlation coefficient values between variable and adaptable to change are between 0.30 and 0.67. The correlation among items is considered medium to large (Cohen, 1988; Pallant 2007). The construct is intended to measure adaptable to change. Further, all correlation coefficients are statistically significant at the 0.01 and 0.05 level. Table 4.3 shows the correlations between items and construct of acceptable to change.

Table 4. 3: Pearson's Correlation Matrix for Adaptable to Change

(AC1) I do wait patiently for the results of a decision	Pearson Correlation	.578**
	Sig. (2-tailed)	.000
(AC2) I become anxious when I cannot find out what is coming next	Pearson Correlation	.342**
	Sig. (2-tailed)	.000
(AC3) I can accept defeat in a calm way	Pearson Correlation	.536**
	Sig. (2-tailed)	.000
(AC4) I can accept delays without being upset	Pearson Correlation	.519**
	Sig. (2-tailed)	.000
(AC5) I become anxious when waiting for new developments	Pearson Correlation	.299**
	Sig. (2-tailed)	.000
(AC6) I am able to tolerate postponement and uncertainty	Pearson Correlation	.633**
	Sig. (2-tailed)	.000
(AC7) I am patient to wait for an outcome	Pearson Correlation	.666**
	Sig. (2-tailed)	.000
(AC8) I do remain calm in facing uncertain situations	Pearson Correlation	.620**

	Sig. (2-tailed)	.000
(AC9) I am able to delay action until the proper time	Pearson Correlation	.500**
	Sig. (2-tailed)	.000
(AC10) I am positive about the outcome of any new procedure	Pearson Correlation	.529**
	Sig. (2-tailed)	.000

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

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

Competency

For competency, the correlation coefficient values between variable and competency are between 0.50 and 0.73. The correlation among items is considered large (Cohen, 1988; Pallant 2007). The construct is intended to measure competency. Further, all correlation coefficients are statistically significant at the 0.01 and 0.05 level. Table 4.4 shows the correlations between items and construct of competency.

Table 4.4: Pearson's Correlation Matrix for Competency

(CY1) I am able to handle complex problems	Pearson Correlation	.592**
	Sig. (2-tailed)	.000
(CY2) I am managing based on the information available	Pearson Correlation	.504**
	Sig. (2-tailed)	.000
(CY3) I do get my works organized	Pearson Correlation	.649**
	Sig. (2-tailed)	.000
(CY4) I can reduce mad house to system and order	Pearson Correlation	.731**
	Sig. (2-tailed)	.000
(CY5) I am manageable when too many demands are made of me	Pearson Correlation	.663**
	Sig. (2-tailed)	.000

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

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

Effective Leadership

For effective leadership, the correlation coefficient values between variable and effective leadership are between 0.47 and 0.70. The correlation among items is considered medium to large (Cohen, 1988; Pallant 2007). The construct is intended to measure effective leadership. Table 4.5 shows the correlations between items and construct of effective leadership.

Table 4.5: Pearson's Correlation Matrix for Effective Leadership

(EL1) I allow members a complete freedom in their work	Pearson Correlation	.625**
	Sig. (2-tailed)	.000
(EL2) I permit members to use their own judgement in solving problems	Pearson Correlation	.614**
	Sig. (2-tailed)	.000
(EL3) I do encourage idea contributions by members	Pearson Correlation	.620**
	Sig. (2-tailed)	.000
(EL4) I do let members to work the way they think best	Pearson Correlation	.665**
	Sig. (2-tailed)	.000
(EL5) I do assign a task for members to handle	Pearson Correlation	.473**
	Sig. (2-tailed)	.000
(EL6) I allow members to do the job with minimal supervision	Pearson Correlation	.565**
	Sig. (2-tailed)	.000
(EL7) I do allow members any freedom of action	Pearson Correlation	.696**
	Sig. (2-tailed)	.000
(EL8) I do allow members a high degree of initiative	Pearson Correlation	.681**
	Sig. (2-tailed)	.000
(EL9) I do encourage members to exercise good judgment	Pearson Correlation	.638**
	Sig. (2-tailed)	.000
(EL10) I do allow members to set their own pace	Pearson Correlation	.537**
	Sig. (2-tailed)	.000

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

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

Transformational Leadership

For transformational leadership, the correlation coefficient values between variable and transformational leadership are between 0.56 and 0.71. The correlation among items is considered large (Cohen, 1988; Pallant 2007). The construct is intended to measure transformational leadership. Further, all correlation coefficients are statistically significant at the 0.01 and 0.05 level. Table 4.6 shows the correlations between items and construct of transformational leadership.

Table 4.6: Pearson's Correlation Matrix for Transformational Leadership

(TL1) I let members know what are expected of them	Pearson Correlation	.613**
	Sig. (2-tailed)	.000
TL2) I do encourage the use of work procedures	Pearson Correlation	.571**
	Sig. (2-tailed)	.000
(TL3) I do share my ideas among members	Pearson Correlation	.625**
	Sig. (2-tailed)	.000
(TL4) I do make my attitudes clear to members	Pearson Correlation	.615**
	Sig. (2-tailed)	.000

(TL5) I do decide what and how shall the job be done	Pearson Correlation	.512**
	Sig. (2-tailed)	.000
(TL6) I do assign members to particular tasks	Pearson Correlation	.677**
	Sig. (2-tailed)	.000
(TL7) I do make sure that my part among members is understood	Pearson Correlation	.710**
	Sig. (2-tailed)	.000
(TL8) I do schedule the work to be done	Pearson Correlation	.625**
	Sig. (2-tailed)	.000
(TL9) I do maintain standards of performance on members	Pearson Correlation	.560**
	Sig. (2-tailed)	.000
(TL10) I do ask member to follow rules and regulations	Pearson Correlation	.647**
	Sig. (2-tailed)	.000

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

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

Charisma

For charisma, the correlation coefficient values between variable and charisma are between 0.53 and 0.83. The correlation among items is considered large (Cohen, 1988; Pallant 2007). The construct is intended to measure charisma. Further, all correlation coefficients are statistically significant at the 0.01 level. Table 4.7 shows the correlations between items and construct of charisma.

Table 4.7: Pearson's Correlation Matrix for Charisma

(CH1) I act as the spokesman of members	Pearson Correlation	.831**
	Sig. (2-tailed)	.000
(CH2) I let others know about the members' activities	Pearson Correlation	.529**
	Sig. (2-tailed)	.000
(CH3) I do speak as a representative of members	Pearson Correlation	.828**
	Sig. (2-tailed)	.000
(CH4) I do speak for members when visitors are present	Pearson Correlation	.730**
	Sig. (2-tailed)	.000
(CH5) I do represent members at outside meetings	Pearson Correlation	.793**
	Sig. (2-tailed)	.000

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

Job Satisfaction

For job satisfaction, the correlation coefficient values between variable and job satisfaction are between 0.55 and 0.75. The correlation among items is considered large (Cohen, 1988; Pallant 2007). The construct is intended to measure job satisfaction.

Further, all correlation coefficients are statistically significant at the 0.01 and 0.05 level. Table 4.8 shows the correlations between items and construct of job satisfaction.

Table 4.8: Pearson's Correlation Matrix for Job Satisfaction

(JS1) I am satisfied the way I handle my colleagues	Pearson Correlation	.582**
	Sig. (2-tailed)	.000
(JS2) I am satisfied on my competence in making decision	Pearson Correlation	.548**
	Sig. (2-tailed)	.000
(JS3) I am satisfied that my job provides me a steady employment	Pearson Correlation	.667**
	Sig. (2-tailed)	.000
(JS4) I am satisfied having the chance to tell people what to do	Pearson Correlation	.528**
	Sig. (2-tailed)	.000
(JS5) I am satisfied having the change to do something that makes use of my abilities	Pearson Correlation	.569**
	Sig. (2-tailed)	.000
(JS6) I am satisfied with the amount of pay received	Pearson Correlation	.626**
	Sig. (2-tailed)	.000
(JS7) I am satisfied with the amount of work I do	Pearson Correlation	.700**
	Sig. (2-tailed)	.000
(JS8) I am satisfied with the chances for advancement of this job	Pearson Correlation	.704**
	Sig. (2-tailed)	.000
(JS9) I am satisfied with the working conditions	Pearson Correlation	.715**
	Sig. (2-tailed)	.000
(JS10) I am satisfied with the feeling of accomplishment I get from the job	Pearson Correlation	.746**
	Sig. (2-tailed)	.000

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

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

Career Satisfaction

For career satisfaction, the correlation coefficient values between variable and career satisfaction are between 0.76 and 0.89. The correlation among items is considered large (Cohen, 1988; Pallant 2007). The construct is intended to measure career satisfaction. Further, all correlation coefficients are statistically significant at the 0.01 level. Table 4.9 shows the correlations between items and construct of career satisfaction.

Table 4.9: Pearson's Correlation Matrix for Career Satisfaction

(CS1) I am satisfied with the success I have achieved in my career	Pearson Correlation	.834**
	Sig. (2-tailed)	.000
(CS2) I am satisfied with the progress I have made toward achieving my overall career goals	Pearson Correlation	.885**
	Sig. (2-tailed)	.000
(CS3) I am satisfied with the opportunity to develop my skills	Pearson Correlation	.836**

	Sig. (2-tailed)	.000
(CS4) I am satisfied with the utilization of my skills	Pearson Correlation	.820**
	Sig. (2-tailed)	.000
(CS5) I am satisfied with my quite high quality of work	Pearson Correlation	.763**
	Sig. (2-tailed)	.000

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

Organizational Commitment

For organizational commitment, the correlation coefficient values between variable and organizational commitment are between 0.57 and 0.83. The correlation among items is considered large (Cohen, 1988; Pallant 2007). The construct is intended to measure organizational commitment. Further, all correlation coefficients are statistically significant at the 0.01 level. Table 4.10 shows the correlations between items and construct of organizational commitment.

Table 4.10: Pearson's Correlation Matrix for Organizational Commitment

(OC1) I am willing to put in a greatest deal of effort beyond that normally expected in order to help this organization be successful	Pearson Correlation	.565**
	Sig. (2-tailed)	.000
(OC2) I talk up this organization to my friends as a great organization to work for	Pearson Correlation	.812**
	Sig. (2-tailed)	.000
(OC3) I feel very loyal to this organization	Pearson Correlation	.812**
	Sig. (2-tailed)	.000
(OC4) I would accept almost any type of job assignment in order to keep working for this organization	Pearson Correlation	.621**
	Sig. (2-tailed)	.000
(OC5) I find that my values and the organization's values are very similar	Pearson Correlation	.774**
	Sig. (2-tailed)	.000
(OC6) I am proud to tell others that I am part of this organization	Pearson Correlation	.872**
	Sig. (2-tailed)	.000
(OC7) This organization really inspires the very best in me in the way of job performance	Pearson Correlation	.812**
	Sig. (2-tailed)	.000
(OC8) I am extremely glad that I chose this organization to work for over others I was considering at the time I joined	Pearson Correlation	.834**
	Sig. (2-tailed)	.000
(OC9) I really care about the fate of this organization	Pearson Correlation	.743**
	Sig. (2-tailed)	.000
(OC10) For me, this is the best of all possible organization for which to work	Pearson Correlation	.803**
	Sig. (2-tailed)	.000

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

4.5   Cross-Tabulation

Cross-tabulations between items are conducted in this study to give an overview of data of this study. The cross-tabulation results reveal the relationship between responses made between two items in the survey questionnaire.

4.5.1   Cross-Tabulation of Gender

Cross-tabulation between genders of faculty members is conducted on academic rank, administrative position, highest academic qualification and leadership training.

4.5.1.1 Academic Rank

The cross-tabulation between gender and academic rank of faculty members' results reveal that there are more female (54.8%) than male (45.2%) in public universities in Malaysia. Further, the majority of female faculty members are lecturers (59.8%), senior lecturers (61.2%) and assistant professors (62.5%).

On the other hand, there are more male associate professors and professors as compared to female faculty members. Percentage wise, male associate professors are 60% as compared to female associate professors at 40%. Meanwhile, male professors are 70.8% as compared to female professors at 29.2%.

According to the chi-square test result, the value is 11.53 and the significant value is 0.02. The Sig. 0.02 is less than the alpha value of 0.05, thus this study concludes that gender and academic rank is significant. Further, there is an association between gender and academic rank.

4.5.1.2 Administrative Position

The cross-tabulation between gender and administrative position of faculty members' results reveal that there are more female faculty members with administrative positions (54.9%) than male faculty members with administrative positions (45.1%) in public universities in Malaysia. The majority of female faculty members with administrative positions are programme chairpersons (58.3%) and various unclassified administrative positions (63.6%). Meanwhile, male faculty members with administrative positions are deputy directors (80%), deputy deans (57.1%) and directors (83.3%) in the public universities in Malaysia. Interestingly, there is an equal balance between genders in

administrative positions as dean, respectively, 50% for male and female faculty members.

According to the chi-square test result, the value is 15.78 and the significant value is 0.02. The Sig. 0.02 is less than the alpha value of 0.05, thus this study concludes that gender and administrative position is significant. Further, there is an association between gender and administrative position of faculty members in public universities in Malaysia.

4.5.1.3 Highest Academic Qualification

The cross-tabulation between gender and highest academic qualification reveals more male faculty members (75%) had bachelor degrees as compared to female faculty members (25%). Conversely, female faculty members had more master degrees (53.8%) and doctorate degrees (56.8%) than male faculty members. Whereby, male faculty members with master degrees and doctorate degrees were 46.2% and 43.2%, respectively.

According to the chi-square test result, the value is 2.89 and the significant value is above 0.05. Thus this study concludes that gender and highest academic qualification are not significant. Further, there is no association between gender and higher academic qualification.

4.5.1.4 Leadership Training

Cross-tabulation between gender and leadership training of faculty members reveals faculty members without training are 28.6% (N = 70). Meanwhile, faculty members who have undergone training within the past three years totals 71.4% (N = 175). Female faculty members indicate they have had most training: 1-3 times 58.9%; and 4-6 times were 54.5% as compared to male faculty members: 1-3 times 41.1%; and 4-6 times were 45.5%. Male faculty members have had the most leadership training between 7-9 and, 10 and over at 57.1% and 58.3%, respectively. On the other hand, female faculty members with leadership training between 7-9 and, 10 and over were 42.9% and 41.7%, respectively.

According to the chi-square test result, the value is 2.33 and the significant value is above 0.05. Thus this study concludes that gender and leadership training attended are

not significant. Further, there is no association between gender and leadership training attended.

4.5.2   Cross-Tabulation of University Affiliation

The cross-tabulation between university affiliations of faculty members is conducted on administrative position, academic rank, academic discipline, research/consultancy involvement and leadership training.

4.5.2.1 Administrative Position

The cross-tabulation between university affiliation and administrative position reveals that overall 57.1% of faculty members have administrative positions as compared to 42.9% of faculty members without administrative position. Further, faculty members of USM had the most faculty members with administrative positions (10.4%) against those without administrative positions (7.9%) based on a comparison with faculty members of other public universities in Malaysia.

According to the chi-square test result, the value is 114.22 and the significant value is 0.01. The Sig. 0.01 is less than the alpha value of 0.05, thus this study concludes that university affiliation and administrative position is significant. Further, there is an association between university affiliation and administrative position.

4.5.2.2 Academic Rank

The cross-tabulation between university affiliation and academic rank reveals that 38.4% faculty members are lecturers , 35.4% are senior lecturers 3.4% are assistant professors , 12.7% are associate professors were and 10.1% are professors.

According to the chi-square test result, the value is 146.88 and the significant value is 0.00. The Sig. 0.00 is less than the alpha value of 0.05, thus this study concludes that university affiliation and academic rank is significant. Further, there is an association between university affiliation and academic rank.

4.5.2.3 Academic Discipline

Cross-tabulation between university affiliation and academic discipline reveals that faculty members in the academic discipline of pure sciences are 8.5%, applied sciences are 45.7%, pure arts are 3.8% and applied arts are 41.9%.

According to the chi-square test result, the value is 83.24 and the significant value is 0.01. The Sig. 0.01 is less than the alpha value of 0.05, thus this study concludes that university affiliation and academic discipline is significant. Further, there is an association between university affiliation and academic discipline.

4.5.2.4 Research/Consultancy Involvement

Cross-tabulation between university affiliation and research/consultancy involvement reveals that 94.1% faculty members have research/consultancy involvement as compared to 5.9% of faculty members not being involved in the research/consultancy. Faculty members whom are involved in research/consultancy can be identified as individual (11.8%) and group only (29.8%). Meanwhile, faculty members who are involved in the research/consultancy as individual and group are 52.5%.

According to the chi-square test result, the value is 80.11 and the significant value is 0.01. The Sig. 0.01 is less than the alpha value of 0.05, thus this study concludes that university affiliation and research/consultancy involvement is significant. Further, there is an association between university affiliation and research/consultancy involvement.

4.5.2.5 Leadership Training

Cross-tabulation between university affiliation and leadership training reveals that 71.4% of faculty members have leadership training as compared to 28.6% of faculty members without leadership training.

According to the chi-square test result, the value is 80.24 and the significant value is 0.24. The Sig. 0.24 is less than the alpha value of 0.05, thus this study concludes that university affiliation and leadership training is not significant. Further, there is no association between university affiliation and leadership training.

4.5.3 Cross-Tabulation of Ethnicity

Various cross-tabulation on ethnicity is conducted with gender, administrative position, academic rank, highest academic qualification and leadership training. Interestingly, none of the relationship between ethnic and the above items is significant. Further, there is no association between ethnic and those items listed.

4.6 Factor Analysis

Factor analysis is used to check the unity and number of concepts and variables in the study. This is accomplished by examining the loading of each item on the factors produced by the factor analysis. With reference to Almutairi (2001, pp.85-86), he explains "in factor analysis, when a group of items loads highly on one factor, these items are considered the items that measure this factor. In some cases, the factors produced and the items loading perfectly correspond to the variables used and the items used to measure these variables. However, in other cases, this correspondence does not take place. To solve this problem, the researcher might change the variable he is using and create new variables. The new variables will be the factors produced by the factor analysis and the items that loaded highly on it". Further, this required the researcher to go back to the literature in the search of the items that loaded highly on one factor are used to measure similar concepts. This was to ensure that the grouping of these items is considered from statistical and theoretical considerations.

The data in this study are explored by using principal component analysis. Principal component analysis is a multivariate technique for identifying the linear components of a set of variables (Field, 2009). Therefore, principal component analysis is used to identify the linear component of academic leadership and work-related attitude variables. In this study, there are 50 items of independent variables to measure the academic leadership and 25 items of dependent variables to measure the work-related attitude.

This study follows the initial step prior to computing the principal component analysis for all variables to ensure the critical factor analysis is satisfied (Pallant, 2007). This is done by looking for a desired multicollinearity to indentify interrelated sets of variables. Multicollinearity causes problems to determine the unique contribution to a factor of the variables that are highly correlated in factor analysis and regression where the correlation matrix scanned for low correlations ($r < 0.3$) as well as high correlation ($r > 0.9$). It is important to avoid variables that are very highly correlated (extreme multicollinearity) and variables that are perfectly correlated, there is no severe multicollinearity in the data if the correlation coefficient values are less than 0.9 (Field, 2009) and all questions in this study correlate reasonably well with all others and none of the correlation coefficient is excessively large; therefore the researcher should not eliminate any questions at this stage.

Further, the data matrix has sufficient correlations, as indicated by anti-image correlation. Anti-image correlation is important to be studied in detail as it is extremely informative where the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) values for individual variables are produced on the diagonal of the anti-image correlation matrix, the value should be above the bare minimum of 0.5 for all variables and if the study data are above 0.5, then they have sufficient correlation as indicated by anti-image.

The entire correlation matrix is examined through Bartlett's test of sphericity; Bartlett's test tells whether the population correlation matrix is significantly different from an identity matrix. If it is significant then overall there are some correlation between variables and clusters which should be included in the analysis where, for the factor analysis to be considered appropriate, Bartlett's test of sphericity should be significant ($p < 0.05$) to indicate that correlations between items are sufficiently large for PCA (Bartlett, 1954; Tabachnik and Fidell, 2007; Pallant, 2007); and Bartlett's test is highly significant if $p < 0.000$, therefore factor analysis is appropriate.

In quantifying the degree of inter-correlations among variables through the measure of sampling adequacy any significant test it dependent upon sample size. So, the reliability of factor analysis is dependent on sample size and much highlighted about the necessary sample size for factor analysis (Field, 2009). For example, a minimum sample size of 300 cases is recommended as a good sample size, 100 as poor and 1,000 as excellent for factor analysis (Field, 2009). Similarly, Comrey and Lee (1992) and Matsunaga (2010) state that a sample size of 100 is poor, 200 is fair, 300 is good, 500 is very good and 1,000 or more is excellent. It is recommended to use the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) (Kaiser, 1960; Pallant, 2007; Field, 2009) to determine that this study sample size is adequate for factor analysis. The KMO index ranges from 0 to 1 with 0.6 suggested as the minimum value for a good factor analysis (Tabachnik & Fidell, 2007). The values between 0.5 and 0.7 are mediocre; values between 0.7 and 0.8 are good; values between 0.8 and 0.9 are great; and values above 0.9 are superb (Hutcheson & Sofroniou, 1999).

4.7 Factor Analysis Extraction

Initially, factor extraction for independent and dependent variables is done without any restrictions. The scree plot is used to determine the cut-off for factor extraction for both

independent and dependent variables. The number of factors to be retained is based on the scree plots of data or the eigenvalue greater than 1.0. The cut-off point for selecting factors is at the point of inflexion of this curve where the slope of the line changes dramatically (Cattell, 1966; Pallant, 2007). The eigenvalue represents the amount of variation explained by a factor (variances extracted by the factor). An eigenvalue of 1.0 represents a substantial amount of variation (Kaiser, 1960; Pallant, 2007; Field 2009). This study uses Kaiser's criterion which retains all factors with eigenvalue greater than 1.0. In support of the scree plot, the Monte Carlo PCA for parallel analysis is also used to determine the number of factors to be extracted.

The initial solution is extracted using the principal component method to extract sequential factors which are then rotated factor loading to enhance their interpretability by reducing the large set of variables into a more manageable set of scale. Rotational strategy is to obtain a clear pattern of loading. Since this is the first analysis, varimax rotation should be selected to simplify the interpretation of factors (Field, 2009).

4.8   Principal Component Analysis on Independent Variables

Data from the 50-item instrument within the independent variables is first analysed using the principal component analysis (PCA) procedure where there is no restriction on data (Matsunaga, 2010) and using the orthogonal varimax rotation (Field, 2009). Through observations of the initial extraction with eigenvalue of 1.0, there are some items that have high cross loading. The component matrix is generated with 12 components. The items of 12-factor solution are mixed up and given little results to represent which groups of resources. In total, the 12 factors explain 62.78% of the variance. Table 4.11 shows the eigenvalue of 12 components that have been extracted.

Table 4.11: Eigenvalue of Twelve-Factor Components for Independent Variables

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.799	25.597	25.597	12.799	25.597	25.597
2	3.600	7.200	32.797	3.600	7.200	32.797
3	2.412	4.824	37.621	2.412	4.824	37.621
4	1.929	3.859	41.480	1.929	3.859	41.480
5	1.769	3.539	45.018	1.769	3.539	45.018
6	1.600	3.200	48.219	1.600	3.200	48.219
7	1.496	2.991	51.210	1.496	2.991	51.210

8	1.342	2.683	53.894	1.342	2.683	53.894
9	1.274	2.549	56.443	1.274	2.549	56.443
10	1.122	2.245	58.687	1.122	2.245	58.687
11	1.031	2.062	60.750	1.031	2.062	60.750
12	1.016	2.031	62.781	1.016	2.031	62.781

According to the scree plot (Figure 4.15) and the Monte Carlo PCA (Table 4.12), both outputs indicated a five-factor extraction in doing the exploratory factor analysis (EFA).

Figure 4.15: The Scree Plot for Independent Variables
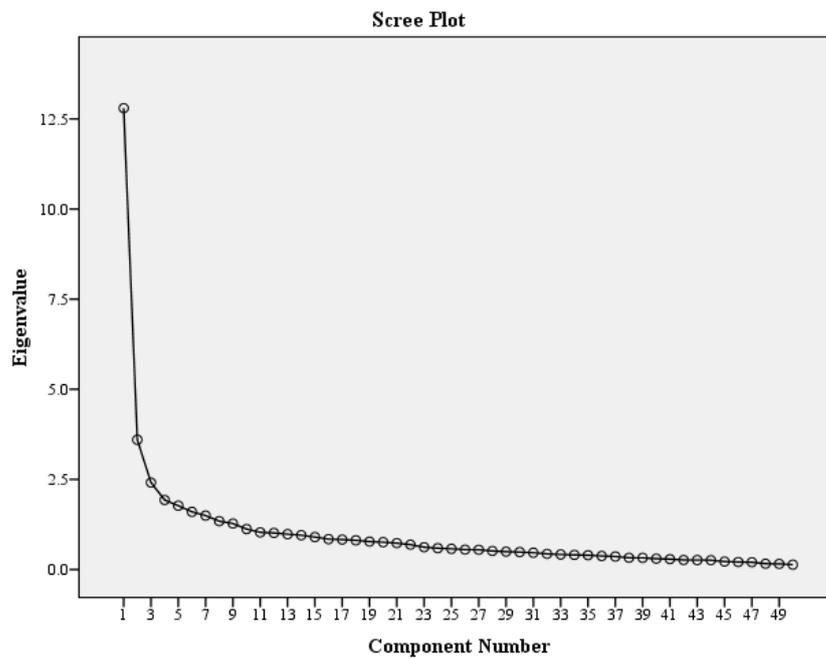
Table 4.12: The Monte Carlo PCA Output for Independent Variables

Number of Variables : 50		
Number of Subjects: 261		
Number of Replications : 100		
Eigenvalue #	Random Eigenvalue	Standard Dev
1	1.9585	0.0566
2	1.8658	0.0362
3	1.7901	0.0397
4	1.7289	0.0315
5	1.6712	0.0269

Meanwhile, communalities output indicated that item TL5 "I do decide what and how shall the job be done" has a communalities loading of 0.218. The TL5 loading is less than 0.3 as such the item is deleted from the further analysis. Table 4.13 shows the result on communalities loading.

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Table 4.13: Communalities Loading for Independent Variables

Item	Extraction
(VY4) I am a very persuasive talker	.673
(VY6) I am a convincing talker	.622
(AC7) I am patient to wait for an outcome	.581
(CH3) I do speak as a representative of members	.560
(EL7) I do allow members any freedom of action	.552
(VY5) I am very skilful in an argument	.544
(CH1) I act as the spokesman of members	.541
(EL9) I do encourage members to exercise good judgment	.538
(AC8) I do remain calm in facing uncertain situations	.537
(EL8) I do allow members a high degree of initiative	.531
(VY10) I can inspire enthusiasm among members on a project	.522
(TL7) I do make sure that my part among members is understood	.520
(EL3) I do encourage idea contributions by members	.519
(TL6) I do assign members to particular tasks	.516
(VY7) I do speak with a strong inner confidence	.512
(VY2) I put convincing arguments among members	.501
(VY9) I do schedule the work to be done	.493
(TL1) I let members know what are expected of them	.490
(AC6) I am able to tolerate postponement and uncertainty	.483
(VY8) I do inspire members through talking	.482
(EL4) I do let members to work the way they think best	.475
(AC10) I am positive about the outcome of any new procedure	.467
(CY3) I do get my works organized	.462
(AC4) I can accept delays without being upset	.461
(TL3) I do share my ideas among members	.460
(CH5) I do represent members at outside meetings	.460
(EL1) I allow members a complete freedom in their work	.458
(AC5) I become anxious when waiting for new developments	.451
(EL5) I do assign a task for members to handle	.423
(EL10) I do allow members to set their own pace	.422
(TL10) I do ask member to follow rules and regulations	.421
(TL8) I do schedule the work to be done	.420
(EL2) I permit members to use their own judgement in solving problems	.402
(AC2) I become anxious when I cannot find out what is coming next	.399
(VY3) I do influence members on my point of view	.397
(CY1) I am able to handle complex problems	.396
(EL6) I allow members to do the job with minimal supervision	.374
(CY5) I am manageable when too many demands are made of me	.373
(TL4) I do make my attitudes clear to members	.370
(AC9) I am able to delay action until the proper time	.368
(AC3) I can accept defeat in a calm way	.365
(CY4) I can reduce mad house to system and order	.362

(CH4) I do speak for members when visitors are present	.361
(CY2) I am managing based on the information available	.352
(TL2) I do encourage the use of work procedures	.352
(AC1) I do wait patiently for the results of a decision	.344
(TL9) I do maintain standards of performance on members	.344
(CH2) I let others know about the members' activities	.327
(VY1) I do make motivational talks to stimulate members	.310
(TL5) I do decide what and how shall the job be done	.218

Further, 49 independent variables are reanalysed to ensure no communalities loading below 0.30. The result of reanalysis on communalities loading indicates that all items are above 0.3. Table 4.14 shows the result of communalities loading after deleting the item TL5.

Table 4.14: Communalities Loading after Deleting Item TL5

Item	Extraction
(VY4) I am a very persuasive talker	.679
(VY6) I am a convincing talker	.632
(AC7) I am patient to wait for an outcome	.582
(CH3) I do speak as a representative of members	.561
(EL7) I do allow members any freedom of action	.550
(VY5) I am very skilful in an argument	.543
(CH1) I act as the spokesman of members	.541
(AC8) I do remain calm in facing uncertain situations	.537
(EL9) I do encourage members to exercise good judgment	.531
(EL8) I do allow members a high degree of initiative	.526
(TL7) I do make sure that my part among members is understood	.520
(VY10) I can inspire enthusiasm among members on a project	.519
(EL3) I do encourage idea contributions by members	.518
(VY7) I do speak with a strong inner confidence	.516
(VY9) I do schedule the work to be done	.513
(TL6) I do assign members to particular tasks	.512
(VY2) I put convincing arguments among members	.501
(TL1) I let members know what are expected of them	.491
(AC6) I am able to tolerate postponement and uncertainty	.482
(VY8) I do inspire members through talking	.480
(EL4) I do let members to work the way they think best	.473
(AC10) I am positive about the outcome of any new procedure	.464
(CY3) I do get my works organized	.462
(AC4) I can accept delays without being upset	.462
(EL1) I allow members a complete freedom in their work	.459
(TL3) I do share my ideas among members	.458
(AC5) I become anxious when waiting for new developments	.440

(EL5) I do assign a task for members to handle	.423
(TL10) I do ask member to follow rules and regulations	.421
(TL8) I do schedule the work to be done	.419
(EL10) I do allow members to set their own pace	.415
(VY3) I do influence members on my point of view	.410
(EL2) I permit members to use their own judgement in solving problems	.403
(AC2) I become anxious when I cannot find out what is coming next	.397
(CY1) I am able to handle complex problems	.392
(AC9) I am able to delay action until the proper time	.381
(EL6) I allow members to do the job with minimal supervision	.380
(CY5) I am manageable when too many demands are made of me	.372
(TL4) I do make my attitudes clear to members	.372
(CY4) I can reduce mad house to system and order	.364
(CH4) I do speak for members when visitors are present	.363
(CY2) I am managing based on the information available	.362
(AC3) I can accept defeat in a calm way	.360
(TL2) I do encourage the use of work procedures	.358
(TL9) I do maintain standards of performance on members	.350
(AC1) I do wait patiently for the results of a decision	.345
(CH2) I let others know about the members' activities	.325
(VY1) I do make motivational talks to stimulate members	.309

Further, the result of eigenvalue of 5 extractions on 49 items of independent variables is shown in Table 4.15. Further in total, the 5 factors explain 45.57% of the variance.

Table 4.15: Eigenvalue of Five-Factor Extractions for Independent Variables

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.665	25.846	25.846	12.665	25.846	25.846
2	3.573	7.292	33.138	3.573	7.292	33.138
3	2.408	4.914	38.052	2.408	4.914	38.052
4	1.920	3.918	41.971	1.920	3.918	41.971
5	1.763	3.597	45.568	1.763	3.597	45.568

4.8.1 Visionary

This scale consists of 10 items that are adapted and adopted from the LBDQ-XII (Stogdill, 1963). The scale asks the lecturer in academia about motivational talks, convincing arguments, influence on others, persuasive talk, skill in an argument, convincing talk, speaking with a strong inner confidence, inspiring others, persuading others and inspiring enthusiasm in others. Eight items, "I do make motivational talks to stimulate members"; "I put convincing arguments among members"; "I am a very

persuasive talker"; "I am very skilful in an argument"; "I am a convincing talker"; "I do speak with a strong inner confidence"; "I do inspire members through talking" and "I can inspire enthusiasm among members on a project", are loaded highly on Factor 1. The loadings are between 0.46 and 0.78. Meanwhile item "I do influence members on my point of view" and "I do schedule the work to be done" are loaded highly on Factor 5, with loadings of 0.48 and 0.60, respectively.

4.8.2 Adaptable to Change

This scale consists of 10 items that are adapted and adopted from the LBDQ-XII (Stogdill, 1963). The scale asked lecturers in academia about waiting patiently for decision results, anxiety of not knowing, accepting defeat, accepting delays, anxiety waiting for new developments, tolerance of postponement and uncertainty, patiently waiting for an outcome, calm in facing uncertainty, ability to delay an action and positivity on new procedures. Six items, "I do wait patiently for the results of a decision"; "I can accept defeat in a calm way"; "I can accept delays without being upset"; "I am able to tolerate postponement and uncertainty"; "I am patient to wait for an outcome" and "I do remain calm in facing uncertain situations" are loaded highly on Factor 4, with loadings that range from 0.47 to 0.70. Meanwhile, "I become anxious when I cannot find out what is coming next"; "I become anxious when waiting for new developments" and "I am able to delay action until the proper time" are loaded on Factor 5 with loadings from 0.47 to 0.58. Meanwhile, "I am positive about the outcome of any new procedure" is loaded on Factor 1 with a loading of 0.37.

4.8.3 Competency

This scale consists of five items that are adapted and adopted from the LBDQ-XII (Stogdill, 1963). The scale asks lecturers in academia about handling complex problems, managing available information, organization of works, handling a madhouse and managing demands. Three items "I am able to handle complex problems"; "I can reduce mad house to system and order" and "I am manageable when too many demands are made of me" are loaded highly on Factor 1 with loadings that range from 0.40 to 0.49. "I do get my works organized" is loaded on Factor 3 with a loading of 0.67. Further, "I am managing based on the information available" is loaded on Factor 5 with a loading of 0.47.

4.8.4 Effective Leadership

This scale consists of 10 items that are adapted and adopted from the LBDQ-XII (Stogdill, 1963). The scale asks lecturers in academia about complete freedom at work, others judgment in solving problems, encouraging idea contributions, allowing others to work their way, task assignation, minimal supervision, freedom of action, degree of initiative, encouraging good judgement and others set their work pace. Eight items, "I allow members a complete freedom in their work"; "I permit members to use their own judgement in solving problems"; "I do encourage idea contributions by members"; "I do let members to work the way they think best"; "I do assign a task for members to handle";, "I allow members to do the job with minimal supervision";, "I do allow members any freedom of action"; "I do allow members a high degree of initiative" and "I do encourage members to exercise good judgment", are loaded highly on Factor 2 with loadings that range from 0.45 to 0.65. Meanwhile, "I do allow members to set their own pace" is loaded on Factor 4 with a loading of 0.41.

4.8.5 Transformational Leadership

This scale consists of 10 items that are adapted and adopted from the LBDQ-XII (Stogdill, 1963). The scale asks lecturers in academia about expectation of others, work procedures, sharing ideas, attitudes, tasks assignment, being understood by others, work schedule, standard of performance and following rules and regulations. Four items, "I let members know what is expected of them"; "I do make my attitudes clear to members"; "I do assign members to particular tasks" and "I do make sure that my part among members is understood", are loaded highly on Factor 1 with loading that ranges from 0.35 to 0.54. Conversely four items, "I do encourage the use of work procedures"; "I do schedule the work to be done"; "I do maintain standards of performance on members" and "I do ask members to follow rules and regulations", are highly loaded on Factor 3 with loadings that range from 0.44 to 0.56. One item, "I do share my ideas among members," is loaded on Factor 2 with loading of 0.43.

Item "I do decide what and how shall the job be done" does not make the cut off in the communalities loading which is less than 0.3. Thus, the item is dropped from further analysis.

4.8.6 Charisma

This scale consists of five items that are adapted and adopted from the LBDQ-XII (Stogdill, 1963). The scale asks lecturers in academia about being a spokesman, talking about activities, being representative, speaking with visitors and being a representative in outside meetings. Four items, "I act as the spokesman of members"; "I do speak as a representative of members"; "I do speak for members when visitors are present" and "I do represent members at outside meetings" are highly loaded on Factor 1 with loadings that range from 0.56 to 0.71. Meanwhile, one item "I let others know about the members' activities" is loaded on Factor 3 with a loading of 0.31.

In summary, Table 4.16 shows the factors loading of independent variables of the above.

Table 4.16: Factors of Independent Variables: Rotated Factor Matrix

	Visionary	Loading
1	(VY1) I do make motivational talks to stimulate members	.459
2	(VY2) I put convincing arguments among members	.670
3	(VY3) I do influence members on my point of view	.483
4	(VY4) I am a very persuasive talker	.782
5	(VY5) I am very skilful in an argument	.724
6	(VY6) I am a convincing talker	.722
7	(VY7) I do speak with a strong inner confidence	.676
8	(VY8) I do inspire members through talking	.515
9	(VY9) I do schedule the work to be done	.604
10	(VY10) I can inspire enthusiasm among members on a project	.469

	Adaptable to Change	Loading
1	(AC1) I do wait patiently for the results of a decision	.533
2	(AC2) I become anxious when I cannot find out what is coming next	.575
3	(AC3) I can accept defeat in a calm way	.473
4	(AC4) I can accept delays without being upset	.637
5	(AC5) I become anxious when waiting for new developments	.566
6	(AC6) I am able to tolerate postponement and uncertainty	.673
7	(AC7) I am patient to wait for an outcome	.703
8	(AC8) I do remain calm in facing uncertain situations	.639
9	(AC9) I am able to delay action until the proper time	.466
10	(AC10) I am positive about the outcome of any new procedure	.369

	Competency	Loading
1	(CY1) I am able to handle complex problems	.486
2	(CY2) I am managing based on the information available	.465

			Loading
3	(CY3) I do get my works organized		.669
4	(CY4) I can reduce mad house to system and order		.396
5	(CY5) I am manageable when too many demands are made of me		.430

	Effective Leadership	Loading
1	(EL1) I allow members a complete freedom in their work	.647
2	(EL2) I permit members to use their own judgement in solving problems	.609
3	(EL3) I do encourage idea contributions by members	.570
4	(EL4) I do let members to work the way they think best	.584
5	(EL5) I do assign a task for members to handle	.521
6	(EL6) I allow members to do the job with minimal supervision	.454
7	(EL7) I do allow members any freedom of action	.614
8	(EL8) I do allow members a high degree of initiative	.610
9	(EL9) I do encourage members to exercise good judgment	.601
10	(EL10) I do allow members to set their own pace	.414

	Transformational Leadership	Loading
1	(TL1) I let members know what are expected of them	.457
2	(TL2) I do encourage the use of work procedures	.557
3	(TL3) I do share my ideas among members	.433
4	(TL4) I do make my attitudes clear to members	.349
5	(TL6) I do assign members to particular tasks	.535
6	(TL7) I do make sure that my part among members is understood	.451
7	(TL8) I do schedule the work to be done	.543
8	(TL9) I do maintain standards of performance on members	.441
9	(TL10) I do ask member to follow rules and regulations	.508

	Charisma	Loading
1	(CH1) I act as the spokesman of members	.705
2	(CH2) I let others know about the members' activities	.312
3	(CH3) I do speak as a representative of members	.709
4	(CH4) I do speak for members when visitors are present	.556
5	(CH5) I do represent members at outside meetings	.614

4.9   Exploratory Factor Analyses for Independent Variables

The result from the exploratory factor analysis (EFA) on independent variables (IV) gives five factor extractions. Based on the components grouping, IV Factor 1, IV Factor 2, IV Factor 3, IV Factor 4 and IV Factor 5 consist of 21 items, nine items, six items, seven items and six items, respectively. Table 4.17 shows the loading of each factor generated by factor analysis.

4.9.1 IV Factor 1

IV Factor 1 (IVF1) consists of 21 items with factor loadings from 0.35 to 0.78. The majority of items in IVF1 are visionary variables with eight items, namely "I am a very persuasive talker"; "I am very skilful in an argument"; "I am a convincing talker"; "I do speak with a strong inner confidence"; "I put convincing arguments among members"; "I do inspire members through talking"; "I can inspire enthusiasm among members on a project" and "I do make motivational talks to stimulate members". This is followed by four items from transformational leadership variables, namely "I do assign members to particular tasks"; "I let members know what are expected of them"; "I do make sure that my part among members is understood" and "I do make my attitudes clear to members".

Further, IVF1 is contributed by 4 items from charisma variables, namely "I do speak as a representative of members"; "I act as the spokesman of members"; "I do represent members at outside meetings" and "I do speak for members when visitors are present". Competency variables contribute three items in IVF1, namely "I can reduce mad house to system and order"; "I am able to handle complex problems" and "I am manageable when too many demands are made of me". Finally, the adaptable to change variable and effective leadership variable contribute one each, namely "I am positive about the outcome of any new procedure" and "I do assign a task for members to handle", respectively. Finally, Cronbach's alpha for 21 items in IVF1 is 0.92.

4.9.2 IV Factor 2

IV Factor 2 (IVF2) consists of nine items with factor loadings from 0.43 to 0.65. The majority of items in IVF2 comprise of effective leadership variables with eight items, namely "I allow members a complete freedom in their work"; "I do allow members any freedom of action"; "I do allow members a high degree of initiative"; "I permit members to use their own judgement in solving problems"; "I do encourage members to exercise good judgment"; "I do encourage idea contributions by members" and "I allow members to do the job with minimal supervision". One item, from the transformational leadership variable is "I do share my ideas among members". Finally, Cronbach's alpha for 21 items in IVF1 is 0.82.

4.9.3 IV Factor 3

IV Factor 3 (IVF3) consists of six items with factor loadings from 0.31 to 0.67. The majority of items in IV Factor 3 is comprised of transformational leadership variables

with four items, namely "I do encourage the use of work procedures"; "I do schedule the work to be done"; "I do ask member to follow rules and regulations" and "I do maintain standards of performance on members".

Further, IVF3 is added by competency and charisma variables with one item each, namely "I do get my works organized" and "I let others know about the members' activities", respectively. This study realizes that most items are themed toward doing works, things being done, manner of works, rules and regulations. Finally, Cronbach's alpha for 21 items in IVF1 is 0.73.

4.9.4   IV Factor 4

IV Factor 4 (IVF4) consists of seven items with factor loadings from 0.41 to 0.70. The majority of Factor 4 comprises of adaptable to change variables with six items, namely "I am patient to wait for an outcome"; "I am able to tolerate postponement and uncertainty"; "I do remain calm in facing uncertain situations"; "I can accept delays without being upset"; "I do wait patiently for the results of a decision" and "I can accept defeat in a calm way". One variable is contributed by effective leadership variable which is "I do allow members to set their own pace". The study sees similarity among items about flexibility, patience, acceptance of uncertainty, acceptance of delays, remaining calm and accepting defeat. Finally, Cronbach's alpha for 21 items in IVF1 is 0.75.

4.9.5   IV Factor 5

IV Factor 5 (IVF5) consists of six items with factor loadings from 0.47 to 0.60. The majority of Factor 5 is comprised of adaptable to change variables with three items, namely "I become anxious when I cannot find out what is coming next"; "I become anxious when waiting for new developments" and "I am able to delay action until the proper time".

Further, the visionary variable contributes two items into IVF5, namely "I do schedule the work to be done" and "I do influence members on my point of view." Moreover, the competency variable contributes one item into IVF3, known as "I am managing based on the information available". IVF5 shows the items are themed toward self encouragement, anxiety to know more about things and working according to information availability. Finally, Cronbach's alpha for 21 items in IVF1 is 0.66.

Table 4.17: Summary of Factor Loading for Independent Variables

	IV Factor 1	Loading
1	(VY4) I am a very persuasive talker	.782
2	(VY5) I am very skilful in an argument	.724
3	(VY6) I am a convincing talker	.722
4	(CH3) I do speak as a representative of members	.709
5	(CH1) I act as the spokesman of members	.705
6	(VY7) I do speak with a strong inner confidence	.676
7	(VY2) I put convincing arguments among members	.670
8	(CH5) I do represent members at outside meetings	.614
9	(CH4) I do speak for members when visitors are present	.556
10	(TL6) I do assign members to particular tasks	.535
11	(EL5) I do assign a task for members to handle	.521
12	(VY8) I do inspire members through talking	.515
13	(CY1) I am able to handle complex problems	.486
14	(VY10) I can inspire enthusiasm among members on a project	.469
15	(VY1) I do make motivational talks to stimulate members	.459
16	(TL1) I let members know what are expected of them	.457
17	(TL7) I do make sure that my part among members is understood	.451
18	(CY5) I am manageable when too many demands are made of me	.430
19	(CY4) I can reduce mad house to system and order	.396
20	(AC10) I am positive about the outcome of any new procedure	.369
21	(TL4) I do make my attitudes clear to members	.349

	IV Factor 2	Loading
1	(EL1) I allow members a complete freedom in their work	.647
2	(EL7) I do allow members any freedom of action	.614
3	(EL8) I do allow members a high degree of initiative	.610
4	(EL2) I permit members to use their own judgement in solving problems	.609
5	(EL9) I do encourage members to exercise good judgment	.601
6	(EL4) I do let members to work the way they think best	.584
7	(EL3) I do encourage idea contributions by members	.570
8	(EL6) I allow members to do the job with minimal supervision	.454
9	(TL3) I do share my ideas among members	.433

	IV Factor 3	Loading
1	(CY3) I do get my works organized	.669
2	(TL2) I do encourage the use of work procedures	.557
3	(TL8) I do schedule the work to be done	.543
4	(TL10) I do ask member to follow rules and regulations	.508
5	(TL9) I do maintain standards of performance on members	.441
6	(CH2) I let others know about the members' activities	.312

	IV Factor 4	Loading
1	(AC7) I am patient to wait for an outcome	.703
2	(AC6) I am able to tolerate postponement and uncertainty	.673
3	(AC8) I do remain calm in facing uncertain situations	.639
4	(AC4) I can accept delays without being upset	.637
5	(AC1) I do wait patiently for the results of a decision	.533
6	(AC3) I can accept defeat in a calm way	.473
7	(EL10) I do allow members to set their own pace	.414

	IV Factor 5	Loading
1	(VY9) I do schedule the work to be done	.604
2	(AC2) I become anxious when I cannot find out what is coming next	.575
3	(AC5) I become anxious when waiting for new developments	.566
4	(VY3) I do influence members on my point of view	.483
5	(AC9) I am able to delay action until the proper time	.466
6	(CY2) I am managing based on the information available	.465

4.9.6   Summary of Internal Reliability for Independent Factors

The result of EFA on 49 independent variables on five extractions gives a Cronbach's alpha that ranges from 0.92 to 0.66. Cronbach's alpha for IVF1 to IVF4 is considered very good to good (Nunnally, 1978; Pallant, 2007; Field, 2009). A summary of EFA and reliability is depicted in Table 4.18.

Table 4.18: Summary of EFA and Cronbach's Alpha

Independent Variables	No of Items	Cronbach's Alpha	Reliability Indication
Factor 1	21	0.92	Very Good
Factor 2	9	0.82	Preferable
Factor 3	6	0.73	Good
Factor 4	7	0.75	Good
Factor 5	6	0.66	Weak

Unfortunately, IVF5 has a Cronbach's alpha of 0.66 which is considered weak. On the other hand, Hair et al. (1998) state that such value of internal reliability is acceptable for an exploratory study where low level of reliability is permitted in studies of exploratory nature (Hair et al., 1998).

In review of the internal reliability output of Item-Total Statistics under the column "Cronbach's alpha if item deleted", all of the items produce no improvement of internal reliability value if deleted. Subsequently, this study considers six items in the IVF5 to

be rationalized based on the items' cross loading and majority of the item being factored. Table 4.19 shows the Item-Total Statistics for IVF5.

Table 4.19: Item-Total Statistics Output for IVF5

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
(VY3) I do influence members on my point of view	18.2451	7.037	.428	.232	.608
(VY9) I do schedule the work to be done	18.5253	6.711	.469	.282	.592
(AC2) I become anxious when I cannot find out what is coming next	18.0895	7.160	.441	.320	.605
(AC5) I become anxious when waiting for new developments	18.2802	7.202	.396	.289	.620
(AC9) I am able to delay action until the proper time	18.2490	7.664	.359	.216	.633
(CY2) I am managing based on the information available	17.9105	7.879	.265	.107	.664

4.10 Rationalization of Independent Factor Extractions

This study examines the result of factor analysis on any items that can be rationalized based on the logical sense where the item should belong according to majority of the rest of the items. There are 13 items to be considered. Table 4.20 shows the identified factor items and their value loadings. Moreover, the remaining 36 items have been examined according to their logical sense and cross-loading. They are considered being factored appropriately by the factor analysis although some items have low loading.

According to Anderson et al. (2005, p.vi), "an item was considered to be belong to a given component if its loading was 0.40 or higher" (Tabachnick & Fidell, 1996) and "was at least 0.2 higher than any cross-loaded item" (Plotnikoff, 1994). Further, the rationalization is also based on the loading value of the items whether it cross loaded in the similar group. On the other hand, Pallant (2007) suggests any alpha values that are low (less than 0.70) should be considered to be removed from the existing scale. In this study, items are not eliminated but they are rationalized according to their logical sense and cross-loading value.

Table 4.20: Items for Rationalization of Independent Factors

Item	Component				
	1	2	3	4	5
(VY9) I do schedule the work to be done	.372				.604
(VY3) I do influence members on my point of view	.401				.483
(EL5) I do assign a task for members to handle	.521	.302			
(EL10) I do allow members to set their own pace		.400		.414	
(TL3) I do share my ideas among members	.372	.433	.351		
(TL1) I let members know what are expected of them	.457	.380	.328		
(TL7) I do make sure that my part among members is understood	.451	.403	.304		
(TL4) I do make my attitudes clear to members	.349	.340	.310		
(AC10) I am positive about the outcome of any new procedure	.369		.345	.351	
(AC2) I become anxious when I cannot find out what is coming next					.575
(AC5) I become anxious when waiting for new developments					.566
(AC9) I am able to delay action until the proper time				.373	.466
(CY2) I am managing based on the information available					.465

4.10.1 IV Factor 1

IV Factor 1 (IVF1) consists of 21 items. There were five items that can be regrouped into other factors. The items are as listed:

1. (EL5) "I do assign a task for member to handle" had two loadings of 0.521 (IVF1) and 0.302 (IVF2). EL5 was regrouped into IVF2 as most items under effective leadership (EL) were in that factor and supported by the loading 0.302.

2. (TL1) "I let members know what are expected of them" had three loadings of 0.457 (IVF1), 0.380 (IVF2) and 0.328 (IVF3). TL1 was regrouped into IVF3 as most items under transformational leadership (TL) were in that factor and supported by the loading 0.328.

3. (TL7) "I do make sure that my part among members is understood" had three loadings of 0.451 (IVF1), 0.403 (IVF2) and 0.304 (IVF3). TL7 was regrouped into IVF3 as most TL items were in that factor and supported by the loading 0.304.

4. (TL4) "I do make my attitudes clear to members" had three loadings of 0.349 (IVF1), 0.340 (IVF2) and 0.310 (IVF3). TL4 was regrouped into IVF3 as most TL items were in that factor and supported by the loading 0.310.

5. (AC10) "I am positive about the outcome of any new procedure" had three loadings of 0.369 (IVF1), 0.345 (IVF3) and 0.351 (IVF4). AC10 was regrouped

into IVF4 as most items under adaptable to change (AC) were in that factor and supported by the loading 0.351.

Meanwhile, two items are regrouped into IVF1:

1. (VY3) "I do influence member on my point of view" was from IVF5. This was based on loading 0.401. The rationalization is based on the majority of VY items are in the IVF5 and the cross loading value.
2. (VY9) "I do schedule the work to be done" was from IVF5. This was based on loading 0.372. The rationalization is based on the majority of VY items are in the IVF5 and the cross loading value.

4.10.2 IV Factor 2

IV Factor 2 (IVF2) consists of nine items. One item, (TL3) "I do share my ideas among members", is regrouped into IVF3 based on the .351 loading. Conversely, there are two items being regrouped into IVF2:

1. (EL5) "I do assign a task for members to handle" with loading 0.302 from IVF1. The rationalization is based on the majority of EL items are in the IVF4 and the cross loading value.
2. (EL10) "I do allow members to set their own pace" with loading 0.400 from IVF4. The rationalization is based on the majority of EL items are in the IVF4 and the cross loading value.

4.10.3 IV Factor 3

IV Factor 3 (IVF3) consists of seven items. No items from this factor are regrouped into other factors. Meanwhile, three items from IVF1 and one item from IVF2 are regrouped into this factor:

1. (TL1) "I let members know what are expected of them" with loading 0.328.
2. (TL4) "I do make my attitudes clear to members" with loading 0.304.
3. (TL7) "I do make sure that my part among members is understood" with loading 0.310.
4. (TL3) "I do share my ideas among members" with loading 0.351.

4.10.4 IV Factor 4

IV Factor 4 (IVF4) consists of six items. One item from this factor, (EL10) "I do allow members to set their own pace" is regrouped into IVF2 based on 0.400 loading. Further, IVF4 is added with the five items from other factors. This regroup is based on the similar adaptable to change (AC) items as listed:

1. (AC10) "I am positive about the outcome of any new procedure" with the loading 0.351 from IVF1.
2. (AC9) "I am able to delay action until the proper time" with the loading 0.373 from IVF5.
3. (AC2) "I become anxious when I cannot find out what is coming next" with the loading 0.575 from IVF5.
4. (AC5) "I become anxious when waiting for new developments" with the loading 0.566 from IVF5.
5. (CY2) "I am managing based on the information available" with loading 0.465 from IVF5.

4.10.5 IV Factor 5

IV Factor 5 (IVF5) consists of six items. All items in this factor are regrouped into other factors based on their common variable grouping, factor loadings and logical senses. Two items are regrouped into IVF1 based on their similar group of variables and loading:

1. (VY3) "I do influence member on my point of view" with 0.401 loading.
2. (VY9) "I do schedule the work to be done" with loading 0.372.

Further three items in this factor are regrouped into IVF4 according to their similar group of variables:

1. (AC2) "I become anxious when I cannot find out what is coming next" with the loading 0.575.
2. (AC5) "I become anxious when waiting for new developments" with the loading 0.566.
3. (AC9) "I am able to delay action until the proper time" with the loading 0.373.

Finally, item (CY2) "I am managing based on the information available" with loading 0.465 left in IVF5 is regrouped into IVF4.

In summary, Table 4.21 shows the rationalization of independent variable factors items:

Table 4.21: Rationalization of Independent Variable Factors

	Item Moved	FROM IVF	TO IVF
1	EL5	1	2
2	TL1	1	3
3	TL7	1	3
4	AC10	1	4
5	TL4	1	3
6	TL3	2	3
7	EL10	4	2
8	VY9	5	1
9	AC2	5	4
10	AC5	5	4
11	VY3	5	1
12	AC9	5	4
13	CY2	5	4

4.11   Rationalization Summary

After the process of rationalization of independent factors, the factors are renamed according to their common theme. IVF1 is renamed as "innovative". IVF2 is renamed as "effective". IVF3 is renamed as "executive". Finally, IVF4 is renamed as "adaptive".

4.11.1 Innovative

Innovative factor consists of 18 items. Ten items are from visionary variables, namely "I do make motivational talks to stimulate members"; "I put convincing arguments among members"; "I do influence members on my point of view"; "I am a very persuasive talker"; "I am very skilful in an argument"; "I am a convincing talker"; "I do speak with a strong inner confidence"; "I do inspire members through talking"; "I do schedule the work to be done" and "I can inspire enthusiasm among members on a project". Next, four items from charisma variables, namely "I act as the spokesman of members"; "I do speak as a representative of members"; "I do speak for members when visitors are present" and "I do represent members at outside meetings". Further, three items from competency variables, namely "I am able to handle complex problems"; "I can reduce mad house to system and order" and "I am manageable when too many

demands are made of me". Finally, one item from transformational leadership variables which was "I do assign members to particular tasks". Cronbach's alpha for innovative factor is 0.91. This is considered very good in terms of reliability (Nunnally, 1978; Agarwal et al., 1999; Pallant, 2007; Field, 2009).

In rationalization of the IVF1 as "innovative", this is based on the fact that most items in the factor are elaborating the person's innovativeness in their working environment of his or her own works and others. It can be concluded that the person needs to be ahead of the other members in thinking and acting creatively. Through creative thinking and acting, a person can build a strong inner confidence in handling his or her works, colleagues and subordinates. In working, the person with innovation can assign other members with particular tasks. This innovative can be bundled with the person's innovative on other members through motivational talks, persuasive and convincing talk, inspiring enthusiasm, and control and influence. The person is also innovative when he or she can handle many needs and demands from others. Innovative is needed especially in handling complex problems. Innovativeness of a person can be seen through his or her act of being a spokesperson and, representative for other members.

4.11.2 Effective

The Effective factor consists of 10 items. All items are from effective leadership variables, namely "I allow members a complete freedom in their work"; "I permit members to use their own judgement in solving problems': "I do encourage idea contributions by members;" "I do let members to work the way they think best;" "I do assign a task for members to handle;" "I allow members to do the job with minimal supervision"; "I do allow members any freedom of action"; "I do allow members a high degree of initiative"; "I do encourage members to exercise good judgment" and "I do allow members to set their own pace". Cronbach's alpha for effective factor is 0.80. This is considered good in terms of reliability (Nunnally, 1978; Agarwal et al., 1999; Pallant, 2007; Field, 2009).

In rationalization of the IVF2 as "effective", this is based on the fact that most items in the factor are based on the theme generated by the person's allowing himself or herself and others to work with complete freedom, pace setting and judgment, thinking best way, minimal supervision, freedom of action and initiative. Additionally, the effective

person would assign tasks for him/herself and other members in achieving the organization's objectives.

4.11.3 Executive

The Executive factor consists of 10 items. Eight items are contributed by transformational leadership variables, namely "I let members know what are expected of them"; "I do encourage the use of work procedures': "I do share my ideas among members"; "I do make my attitudes clear to members"; "I do make sure that my part among members is understood"; "I do schedule the work to be done"; "I do maintain standards of performance on members" and "I do ask member to follow rules and regulations". Two items are contributed from both charisma and competency variables, namely "I let others know about the members' activities" and "I do get my works organized", respectively. Cronbach's alpha for executive factor is 0.81. This is considered good in terms of reliability (Nunnally, 1978; Agarwal et al., 1999; Pallant, 2007; Field, 2009).

In rationalization of the IVF3 as "executive", this is based on the fact that most items in the factor are based on the theme generated by the person's passion for power and authority in getting his or her works done even on other members. If working with other members, the person allows others on their works through organization of works and activities. Moreover the person urges others to follow rules, regulations and procedures. The person will make known about his or her members' activities. Additionally, the person will organize their members' works and notify what is expected from them.

4.11.4 Adaptive

The Adaptive factor consists of 11 items. 10 items are contributed by adaptable to change variables, namely "I do wait patiently for the results of a decision"; "I become anxious when I cannot find out what is coming next"; "I can accept defeat in a calm way"; "I can accept delays without being upset"; "I become anxious when waiting for new developments"; "I am able to tolerate postponement and uncertainty"; "I am patient to wait for an outcome"; "I do remain calm in facing uncertain situations"; "I am able to delay action until the proper time" and "I am positive about the outcome of any new procedure". One item is contributed by the competency variable "I am managing based on the information available". Cronbach's alpha for adaptive factor is 0.71. This is

considered acceptable in terms of reliability (Nunnally, 1978; Agarwal et al., 1999; Pallant, 2007; Field, 2009).

In rationalization of the IVF4 as "adaptive", this is based on the fact that most items in the factor are based on the theme generated by the person's way of adapting his or her work environment. The person is adaptive in terms of positive outcome such as acceptance of defeat and delay, able to tolerate postponement and uncertainty, and calm in any outcomes. Moreover, the person manages based on availability of information. The person is also able to delay action on situations.

In summary, the rationalization of independent variables gives a Cronbach's alpha results between 0.91 to 0.71 which are considered very good to acceptable (Pallant, 2007). "Ideally, the Cronbach alpha coefficient of a scale should be above 0.70" (Pallant, 2007, p.95). Based on the rationalization, Table 4.22 shows the new construction of factors.

Table 4.22: New Rationalization of Independent Factors

IVF1	INNOVATIVE	Loading
1	(CH1) I act as the spokesman of members	.705
2	(CH3) I do speak as a representative of members	.709
3	(CH4) I do speak for members when visitors are present	.556
4	(CH5) I do represent members at outside meetings	.614
5	(CY1) I am able to handle complex problems	.486
6	(CY4) I can reduce mad house to system and order	.396
7	(CY5) I am manageable when too many demands are made of me	.430
8	(TL6) I do assign members to particular tasks	.535
9	(VY1) I do make motivational talks to stimulate members	.459
10	(VY10) I can inspire enthusiasm among members on a project	.469
11	(VY2) I put convincing arguments among members	.670
12	(VY3) I do influence members on my point of view	.401
13	(VY4) I am a very persuasive talker	.782
14	(VY5) I am very skilful in an argument	.724
15	(VY6) I am a convincing talker	.722
16	(VY7) I do speak with a strong inner confidence	.676
17	(VY8) I do inspire members through talking	.515
18	(VY9) I do schedule the work to be done	.372

IVF2	EFFECTIVE	Loading
1	(EL1) I allow members a complete freedom in their work	.647
2	(EL10) I do allow members to set their own pace	.400

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3	(EL2) I permit members to use their own judgement in solving problems	.609
4	(EL3) I do encourage idea contributions by members	.570
5	(EL4) I do let members to work the way they think best	.584
6	(EL5) I do assign a task for members to handle	.302
7	(EL6) I allow members to do the job with minimal supervision	.454
8	(EL7) I do allow members any freedom of action	.614
9	(EL8) I do allow members a high degree of initiative	.610
10	(EL9) I do encourage members to exercise good judgment	.601

IVF3	EXECUTIVE	Loading
1	(CH2) I let others know about the members' activities	.312
2	(CY3) I do get my works organized	.669
3	(TL1) I let members know what are expected of them	.328
4	(TL10) I do ask member to follow rules and regulations	.508
5	(TL2) I do encourage the use of work procedures	.557
6	(TL3) I do share my ideas among members	.351
7	(TL4) I do make my attitudes clear to members	.310
8	(TL7) I do make sure that my part among members is understood	.304
9	(TL8) I do schedule the work to be done	.543
10	(TL9) I do maintain standards of performance on members	.441

IVF4	ADAPTIVE	Loading
1	(AC1) I do wait patiently for the results of a decision	.533
2	(AC10) I am positive about the outcome of any new procedure	.351
3	(AC2) I become anxious when I cannot find out what is coming next	.575
4	(AC3) I can accept defeat in a calm way	.473
5	(AC4) I can accept delays without being upset	.637
6	(AC5) I become anxious when waiting for new developments	.566
7	(AC6) I am able to tolerate postponement and uncertainty	.673
8	(AC7) I am patient to wait for an outcome	.703
9	(AC8) I do remain calm in facing uncertain situations	.639
10	(AC9) I am able to delay action until the proper time	.373
11	(CY2) I am managing based on the information available	.465

4.12 Adaptive: Internal Reliability Alpha Improvement

Pertaining to the "Adaptive" (IVF4), internal reliability can be improved by examining the Item-Total Statistics output (Childers, 1986) under the column headed "Cronbach's Alpha if Item Deleted" (Pallant, 2007; Field, 2009). At present, the "Adaptive" Cronbach's alpha is 0.706 with an 11-item component. The internal reliability alpha for "Adaptive" is improved by eliminating item AC5, AC2 and CY2, accordingly.

1. First by eliminating item AC5, the "Adaptive" internal reliability alpha is improved from 0.706 to 0.729.

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2. Next by eliminating item AC2, the internal reliability alpha is further improved from 0.729 to 0.755.

3. Finally by eliminating item CY2 from the "Adaptive", the internal reliability alpha is even better from 0.755 to 0.763.

Thus, the improvement of Cronbach's alpha for "Adaptive" gives a strongly acceptable internal reliability alpha at 0.76 with eight-item component. The eight-item "Adaptive" after elimination of three-item is:

1. I do wait patiently for the results of a decision.

2. I can accept defeat in a calm way.

3. I can accept delays without being upset.

4. I am able to tolerate postponement and uncertainty.

5. I am patient to wait for an outcome.

6. I do remain calm in facing uncertain situations.

7. I am able to delay action until the proper time.

8. I am positive about the outcome of any new procedure.

Table 4.23 shows the summary of rationalization and the new value of the Cronbach's alpha for innovative, effective, executive and adaptive of academic leadership.

Table 4.23: Summary of Rationalization and Cronbach's Alpha
for Independent Variables

Independent Variables	No of Items	Cronbach's Alpha	Reliability Indication
Innovative	18	0.91	Very Good
Effective	10	0.80	Preferable
Executive	10	0.81	Preferable
Adaptive	8	0.76	Acceptable

4.13 Principal Component Factor Analyses for Dependent Variables

Dependent variables of this study consist of 25 items conducted using the principal component analysis procedure where there is no restriction on data (Matsunaga, 2010) and using the orthogonal varimax rotation (Field, 2009). The initial extraction of dependent variables is by setting the eigenvalue = 1.0, the dependent variables give extraction of five components with 66.63% of variance. The eigenvalue of dependent variables is depicted in Table 4.24.

Table 4.24: Eigenvalue of Five-Factor Components for Dependent Variables

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.931	39.724	39.724	9.931	39.724	39.724
2	2.472	9.887	49.611	2.472	9.887	49.611
3	1.693	6.772	56.383	1.693	6.772	56.383
4	1.427	5.709	62.092	1.427	5.709	62.092
5	1.135	4.541	66.633	1.135	4.541	66.633

According to the scree plot (Figure 4.16) and the Monte Carlor PCA output (Table 4.25), the dependent variables are extracted using orthogonal varimax rotation with four-factor extractions.

Figure 4.16: The Scree Plot for Dependent Variables
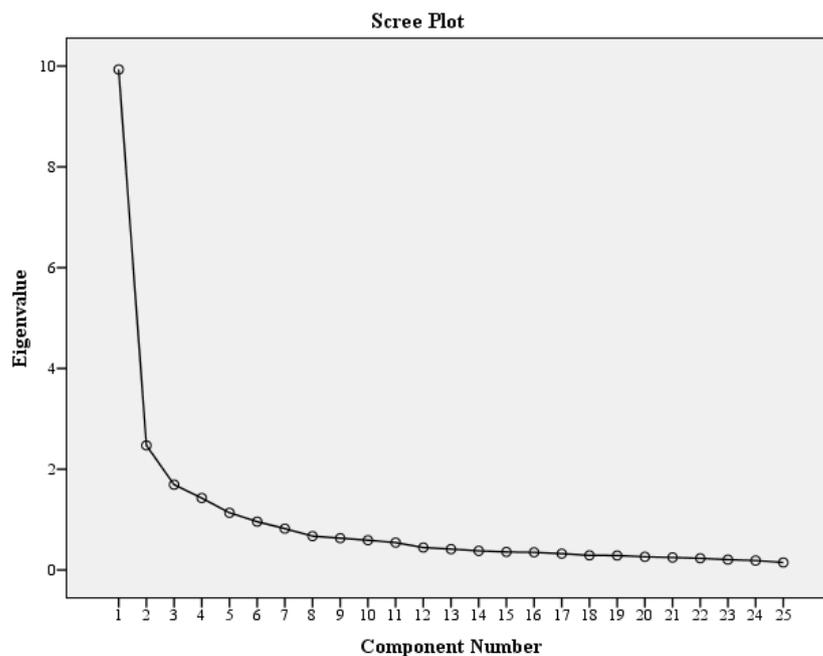
Table 4.25: The Monte Carlo PCA Output for Dependent Variables

Number of Variables : 25		
Number of Subjects: 261		
Number of Replications : 100		
Eigenvalue #	Random Eigenvalue	Standard Dev
1	1.6139	0.0549
2	1.5171	0.0404
3	1.4403	0.0362
4	1.3743	0.0294

According to the communalities, all item loadings are above 0.3. Thus all items are used in further analysis. Table 4.26 shows the communalities loading.

Table 4.26: Communalities Loading for Dependent Variables

	Initial	Extraction
(JS2) I am satisfied on my competence in making decision	1.000	.817
(JS1) I am satisfied the way I handle my colleagues	1.000	.802
(CS2) I am satisfied with the progress I have made toward achieving my overall career goals	1.000	.793
(JS5) I am satisfied having the change to do something that makes use of my abilities	1.000	.786
(OC6) I am proud to tell others that I am part of this organization	1.000	.781
(CS3) I am satisfied with the opportunity to develop my skills	1.000	.745
(OC8) I am extremely glad that I chose this organization to work for over others I was considering at the time I joined	1.000	.724
(CS5) I am satisfied with my quite high quality of work	1.000	.715
(OC3) I feel very loyal to this organization	1.000	.701
(CS1) I am satisfied with the success I have achieved in my career	1.000	.690
(OC7) This organization really inspires the very best in me in the way of job performance	1.000	.687
(OC5) I find that my values and the organization's values are very similar	1.000	.685
(OC2) I talk up this organization to my friends as a great organization to work for	1.000	.675
(CS4) I am satisfied with the utilization of my skills	1.000	.669
(OC9) I really care about the fate of this organization	1.000	.658
(JS9) I am satisfied with the working conditions	1.000	.648
(OC10) For me, this is the best of all possible organization for which to work	1.000	.641
(JS8) I am satisfied with the chances for advancement of this job	1.000	.640
(JS3) I am satisfied that my job provides me a steady employment	1.000	.619
(JS10) I am satisfied with the feeling of accomplishment I get from the job	1.000	.607
(JS7) I am satisfied with the amount of work I do	1.000	.606
(JS6) I am satisfied with the amount of pay received	1.000	.581
(JS4) I am satisfied having the chance to tell people what to do	1.000	.522
(OC4) I would accept almost any type of job assignment in order to keep working for this organization	1.000	.475
(OC1) I am willing to put in a greatest del of effort beyond that normally expected in order to help this organization be successful	1.000	.391

4.13.1 Job Satisfaction

This scale consisted of 10 items that are adapted and adopted from the Minnesota Satisfaction Questionnaire (Weiss et al., 1667; Greenhaus et al., 1990; Armstrong-Stassen & Cameron, 2005; Karia & Asaari, 2006). The scale asks faculty members in academia about satisfaction on handling of colleagues, competence in making decisions, steady employment, telling people what to do, use of abilities, amount of pay, amount of work, chances of advancement, working conditions and feelings of accomplishment. Five items, "I am satisfied with the amount of pay received"; "I am satisfied with the

amount of work I do"; "I am satisfied with the chances for advancement of this job"; "I am satisfied with the working conditions" and "I am satisfied with the feeling of accomplishment I get from the job", are loaded highly on Factor 3 with loadings from 0.46 to 0.73. The remaining five items, "I am satisfied the way I handle my colleagues"; "I am satisfied on my competence in making decision"; "I am satisfied that my job provides me a steady employment"; "I am satisfied having the chance to tell people what to do" and "I am satisfied having the change to do something that makes use of my abilities", are loaded highly on Factor 4 with loadings from 0.50 to 0.83.

4.13.2 Career Satisfaction

This scale consists of five items that are adapted and adopted from instruments produced by Greenhaus et al. (1990) from the works of Armstrong-Stassen and Cameron (2005) and Karia and Asaari (2006). The scale asks faculty members in academia about satisfaction on career achievement, career goals, skills development, skills utilization and quality of work. Five items, "I am satisfied with the success I have achieved in my career"; "I am satisfied with the progress I have made toward achieving my overall career goals"; "I am satisfied with the opportunity to develop my skills;" "I am satisfied with the utilization of my skills" and "I am satisfied with my quite high quality of work", are loaded highly on Factor 2 with loadings from 0.69 to 0.79.

4.13.3 Organizational Commitment

This scale consists of 10 items that are adapted and adopted from the Organizational Commitment Questionnaire (Mowday et al., 1979; Karia & Asaari, 2006). The scale asks faculty members in academia about effort in helping the organization, talking about organization, loyalty to the organization, keep working for the organization, personal and organization values, telling others about the organization, job performance, choosing the organization and best the organization to work. Ten items, "I am willing to put in a greatest deal of effort beyond that normally expected in order to help this organization be successful"; "I talk up this organization to my friends as a great organization to work for"; "I feel very loyal to this organization"; "I would accept almost any type of job assignment in order to keep working for this organization"; "I find that my values and the organization's values are very similar"; "I am proud to tell others that I am part of this organization"; "This organization really inspires the very best in me in the way of job performance"; "I am extremely glad that I chose this organization to work for over others I was considering at the time I joined"; "I really

care about the fate of this organization" and "For me, this is the best of all possible organization for which to work", are loaded highly on Factor 1 with loadings from 0.54 to 0.84.

In summary, Table 4.27 shows the factor loading of the principal component analysis on dependent variables.

Table 4.27: Factors of Dependent Variables: Rotated Factor Matrix

	Job Satisfaction	Loading
1	(JS1) I am satisfied the way I handle my colleagues	.740
2	(JS2) I am satisfied on my competence in making decision	.834
3	(JS3) I am satisfied that my job provides me a steady employment	.513
4	(JS4) I am satisfied having the chance to tell people what to do	.551
5	(JS5) I am satisfied having the change to do something that makes use of my abilities	.499
6	(JS6) I am satisfied with the amount of pay received	.734
7	(JS7) I am satisfied with the amount of work I do	.674
8	(JS8) I am satisfied with the chances for advancement of this job	.702
9	(JS9) I am satisfied with the working conditions	.689
10	(JS10) I am satisfied with the feeling of accomplishment I get from the job	.457

	Career Satisfaction	Loading
1	(CS1) I am satisfied with the success I have achieved in my career	.723
2	(CS2) I am satisfied with the progress I have made toward achieving my overall career goals	.791
3	(CS3) I am satisfied with the opportunity to develop my skills	.756
4	(CS4) I am satisfied with the utilization of my skills	.725
5	(CS5) I am satisfied with my quite high quality of work	.694

	Organizational Commitment	Loading
1	(OC1) I am willing to put in a greatest deal of effort beyond that normally expected in order to help this organization be successful	.538
2	(OC2) I talk up this organization to my friends as a great organization to work for	.748
3	(OC3) I feel very loyal to this organization	.799
4	(OC4) I would accept almost any type of job assignment in order to keep working for this organization	.618
5	(OC5) I find that my values and the organization's values are very similar	.705
6	(OC6) I am proud to tell others that I am part of this organization	.841
7	(OC7) This organization really inspires the very best in me in the way of job performance	.727
8	(OC8) I am extremely glad that I chose this organization to work for over others I was considering at the time I joined	.774
9	(OC9) I really care about the fate of this organization	.719
10	(OC10) For me, this is the best of all possible organization for which to work	.714

4.14 Exploratory Factor Analyses for Dependent Variables

Based on the scree plot and the Monte Carlo PCA, the second analysis is based on the varimax of four-factor extractions in doing the exploratory factor analysis (EFA). Table 4.28 shows the eigenvalue of four-factor extractions with 62.01% of the variance.

Table 4.28: Eigenvalue of Four-Factor Extractions for Dependent Variables

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.931	39.724	39.724	9.931	39.724	39.724
2	2.472	9.887	49.611	2.472	9.887	49.611
3	1.693	6.772	56.383	1.693	6.772	56.383
4	1.427	5.709	62.092	1.427	5.709	62.092

Again, the communalities loading are re-examined to ensure there are no loading values that less than 0.30. Table 4.29 shows that there are no communalities loading as indicated.

Table 4.29: Communalities Loading for Four-Factor Extractions

	Initial	Extraction
(OC6) I am proud to tell others that I am part of this organization	1.000	.780
(CS2) I am satisfied with the progress I have made toward achieving my overall career goals	1.000	.754
(CS3) I am satisfied with the opportunity to develop my skills	1.000	.745
(JS2) I am satisfied on my competence in making decision	1.000	.724
(OC8) I am extremely glad that I chose this organization to work for over others I was considering at the time I joined	1.000	.721
(OC3) I feel very loyal to this organization	1.000	.688
(OC7) This organization really inspires the very best in me in the way of job performance	1.000	.687
(CS5) I am satisfied with my quite high quality of work	1.000	.684
(CS1) I am satisfied with the success I have achieved in my career	1.000	.680
(OC2) I talk up this organization to my friends as a great organization to work for	1.000	.667
(CS4) I am satisfied with the utilization of my skills	1.000	.658
(OC5) I find that my values and the organization's values are very similar	1.000	.647
(OC10) For me, this is the best of all possible organization for which to work	1.000	.641
(JS8) I am satisfied with the chances for advancement of this job	1.000	.640
(JS9) I am satisfied with the working conditions	1.000	.639
(OC9) I really care about the fate of this organization	1.000	.638
(JS1) I am satisfied the way I handle my colleagues	1.000	.619
(JS7) I am satisfied with the amount of work I do	1.000	.589
(JS) I am satisfied with the amount of pay received	1.000	.559
(JS10) I am satisfied with the feeling of accomplishment I get from the job	1.000	.558

(JS3) I am satisfied that my job provides me a steady employment	1.000	.495
(OC4) I would accept almost any type of job assignment in order to keep working for this organization	1.000	.474
(JS5) I am satisfied having the change to do something that makes use of my abilities	1.000	.463
(JS4) I am satisfied having the chance to tell people what to do	1.000	.390
(OC1) I am willing to put in a greatest deal of effort beyond that normally expected in order to help this organization be successful	1.000	.385

Further, the rotated component matrix gives cluster of factors where DV Factor 1 (DVF1) comprises of 10 items. Meanwhile, DV Factor 2 (DVF2), DV Factor 3 (DVF3) and DV Factor 4 (DVF4) comprise five items each, respectively. Table 4.30 shows the loading of each factor generated by principal component factor analysis.

Based on the factor analysis on dependent variables, the factors are renamed based on the component thematics. The DVF1 name is retained as "organizational commitment" as most items are themed accordingly. This is because 10 items in the DVF1 are originally from organizational commitment variables. The DVF2 comprises five items from career satisfaction. Thus DVF2 is kept as "career satisfaction" as most items are themed accordingly.

Meanwhile, the DVF3 and DVF4 are divided equally from 10 job satisfaction variables. The DVF3 is comprised of five items and known as "job satisfaction". This is because all items are themed in relation to job satisfaction. On the other hand, the DVF4 compriss five items but renamed as "job skills". This is because the themed of all variables in the factor are more towards in dealing with faculty members' ability in decision making and ability to deal with people.

4.14.1 Organizational Commitment

The Organizational commitment factor consists of 10 items. The items are contributed by organizational commitment variables, namely "I am proud to tell others that I am part of this organization"; "I feel very loyal to this organization"; "I am extremely glad that I chose this organization to work for over others I was considering at the time I joined"; "I talk up this organization to my friends as a great organization to work for"; "This organization really inspires the very best in me in the way of job performance"; "I really care about the fate of this organization"; "I would accept almost any type of job assignment in order to keep working for this organization"; "I am willing to put in a greatest deal of effort beyond that normally expected in order to help this organization

be successful" and "For me, this is the best of all possible organization for which to work, I find that my values and the organization's values are very similar". Cronbach's alpha for organizational commitment factor is 0.92. This is considered very good in terms of reliability (Nunnally, 1978; Agarwal et al., 1999; Pallant, 2007; Field, 2009).

4.14.2 Career Satisfaction

Career satisfaction factor consists of five items. These items are originated from career satisfaction variables, namely "I am satisfied with the progress I have made toward achieving my overall career goals"; "I am satisfied with the opportunity to develop my skills;" "I am satisfied with the utilization of my skills"; "I am satisfied with the success I have achieved in my career" and "I am satisfied with my quite high quality of work." Cronbach's alpha for career satisfaction factor is 0.86. This is considered good in terms of reliability (Nunnally, 1978; Agarwal et al., 1999; Pallant, 2007; Field, 2009).

4.14.3 Job Satisfaction

Job satisfaction factor consists of five items contributed by job satisfaction variables. These factors are themed toward administrative and working environment. Thus, the factor is retained as job satisfaction. The factors are "I am satisfied with the amount of pay received"; "I am satisfied with the chances for advancement of this job"; "I am satisfied with the working conditions"; "I am satisfied with the amount of work I do" and "I am satisfied with the feeling of accomplishment I get from the job". Cronbach's alpha for job satisfaction factor is 0.82. This is considered good in terms of reliability (Nunnally, 1978; Agarwal et al., 1999; Pallant, 2007; Field, 2009).

4.14.4 Job Skills

Job skills factors are five items which are contributed by job satisfaction variables. Although the items are from job satisfaction of dependent variables, this factor is renamed as job skills where the theme of items is toward interactions and dealings with subordinates and colleagues. The factors are "I am satisfied on my competence in making decision;" "I am satisfied the way I handle my colleagues"; "I am satisfied having the chance to tell people what to do"; "I am satisfied that my job provides me a steady employment" and "I am satisfied having the change to do something that makes use of my abilities". Cronbach's alpha for job skills factor is 0.76. This is considered acceptable in terms of reliability (Nunnally, 1978; Agarwal et al., 1999; Pallant, 2007; Field, 2009).

Table 4.30: Summary of Factor Loading for Dependent Variables

	Organizational Commitment	Loading
1	(OC6) I am proud to tell others that I am part of this organization	.841
2	(OC3) I feel very loyal to this organization	.799
3	(OC8) I am extremely glad that I chose this organization to work for over others I was considering at the time I joined	.774
4	(OC2) I talk up this organization to my friends as a great organization to work for	.748
5	(OC7) This organization really inspires the very best in me in the way of job performance	.727
6	(OC9) I really care about the fate of this organization	.719
7	(OC10) For me, this is the best of all possible organization for which to work	.714
8	(OC5) I find that my values and the organization's values are very similar	.705
9	(OC4) I would accept almost any type of job assignment in order to keep working for this organization	.618
10	(OC1) I am willing to put in a greatest deal of effort beyond that normally expected in order to help this organization be successful	.538

	Career Satisfaction	Loading
1	(CS2) I am satisfied with the progress I have made toward achieving my overall career goals	.791
2	(CS3) I am satisfied with the opportunity to develop my skills	.756
3	(CS4) I am satisfied with the utilization of my skills	.725
4	(CS1) I am satisfied with the success I have achieved in my career	.723
5	(CS5) I am satisfied with my quite high quality of work	.694

	Job Satisfaction	Loading
1	(JS6) I am satisfied with the amount of pay received	.734
2	(JS8) I am satisfied with the chances for advancement of this job	.702
3	(JS9) I am satisfied with the working conditions	.689
4	(JS7) I am satisfied with the amount of work I do	.674
5	(JS10) I am satisfied with the feeling of accomplishment I get from the job	.457

	Job Skills	Loading
1	(JS2) I am satisfied on my competence in making decision	.740
2	(JS1) I am satisfied the way I handle my colleagues	.834
3	(JS4) I am satisfied having the chance to tell people what to do	.513
4	(JS3) I am satisfied that my job provides me a steady employment	.551
5	(JS5) I am satisfied having the change to do something that makes use of my abilities	.499

The Cronbach's alpha for dependent variable factors of organizational commitment, career satisfaction, job satisfaction and job skills are 0.92, 0.89, 0.82 and 0.76 respectively. Table 4.31 shows the overview of reliability analysis of factors of dependent variables.

Table 4.31: Summary of Rationalization and Cronbach's Alpha for Dependent
Variables

Dependent Variables	No of Items	Cronbach's Alpha	Reliability Indication
Organizational Commitment	10	0.92	Very Good
Career Satisfaction	5	0.89	Preferable
Job Satisfaction	5	0.82	Preferable
Job Skills	5	0.76	Acceptable

4.15   Goodness of Measures

In this study, it has been determined that the communalities value is acceptable if it is above 0.3. The result of the factor analysis show the communalities that observed are above 0.3. The acceptable communalities value is in the range between 0.7 to < 0.4 depending on the number of variables (Stevens, 2002; Field, 2009).

The initial factor analysis extraction for independent variables, the communalities loading are between 0.38 and 0.74 for 12 components. Meanwhile in the five-factor extraction, the communalities are between 0.22 and 0.67. Factor, TL5, "I do decide what and how shall the job be done" has the lowest communalities loading with a 0.22 value. Thus TL5 is dropped from further factor analysis. After dropping TL5, the communalities loading are between 0.31 and 0.68. Meanwhile for dependent variable, the communalities value is between 0.39 and 0.78. Therefore, no variable is dropped from dependent variables in this study. All items are accepted for further analysis.

Based on the anti-image correlations value, this study adopts the value more than 0.5. Moreover, the anti-image correlations value for the independent and dependent variables are above 0.5.

For independent variable, the KMO is 0.877 and is considered great (Yiing & Ahmad, 2009). Further, it is supported by the Bartlett's test of sphericity as significant ($p < 0.000$). The total variance explained is 45.57%. Meanwhile for dependent variable, the KMO is 0.914 and is considered superb (Yiing & Ahmad, 2009). Moreover, the dependent variables are supported by the Bartlett's test of sphericity as significant ($p < 0.000$). The total variance explained is 62.09%. Table 4.32 summarizes the goodness of measure.

Table 4.32: Summary of the Goodness of Measure

Independent Variable	
KMO	0.877
Bartlett's test of sphericity	Sig. 0.000
Communalities	> 0.3
Anti-image correlations	> 0.5
Dependent Variable	
KMO	0.914
Bartlett's test of sphericity	Sig. 0.000
Communalities	> 0.3
Anti-image correlations	> 0.5

4.16   Reliability

To verify the reliability of the study's questionnaire items, the academic leadership and work-related attitude are analyzed using reliability analysis. In this study, the internal consistency reliability analysis for academic leadership and work-related attitude constructs are from 0.76 and 0.91. On the other hand, the work-related attitude constructs are from 0.76 to 0.92. Those values of consistency reliability analysis are considered having an acceptable value of 0.7 to 0.8 (Field, 2009). The interim consistency reliability analysis of the study is depicted in Table 4.33.

Table 4.33: Cronbach's Alpha of Academic Leadership and
Work-Related Attitude Constructs

Construct	No of Questions	Cronbach's Alpha	Consideration
Academic Leadership			
Innovative	18	0.91	Very Good
Effective	10	0.80	Preferable
Executive	10	0.81	Preferable
Adaptive	8	0.76	Acceptable
Work-Related Attitude			
Organizational Commitment	10	0.92	Very Good
Career Satisfaction	5	0.86	Preferable
Job Satisfaction	5	0.82	Preferable
Job Skills	5	0.76	Acceptable

Further, the generally accepted value of 0.8 is appropriate for cognitive tests such as intelligence tests, for ability tests a cut-off point of 0.7 is more suitable (Field, 2009). According to Pallant (2007), Cronbach's alpha that reads a value of 0.77 is considered acceptable, a value of 0.80 considered preferable, and a value of 0.89 is considered very good internal consistency. In this study, Cronbach's alpha is between 0.70 and 0.90 which is acceptable toward good internal consistency. Further this shows no problems relating to the quality of the data are foreseen (Nunnally, 1978; Agarwal et al., 1999).

Thus the study has fulfilled the acceptable value of its consistency reliability analysis (Nunnally, 1978; Agarwal et al., 1999; Field, 2009).

4.17   Result of Factor Analysis on Study's Framework

Based on the rationalization of the factor analysis, the conceptual groupings of all variables in the study have changed. Figure 4.17 shows the study's framework after the factor analysis. Academic leadership consists of innovative, effective, executive and adaptive. Meanwhile, work-related attitude consists of organizational commitment, career satisfaction, job satisfaction and job skills.

Figure 4.17: Study's Framework after Rationalization of Factor Analysis
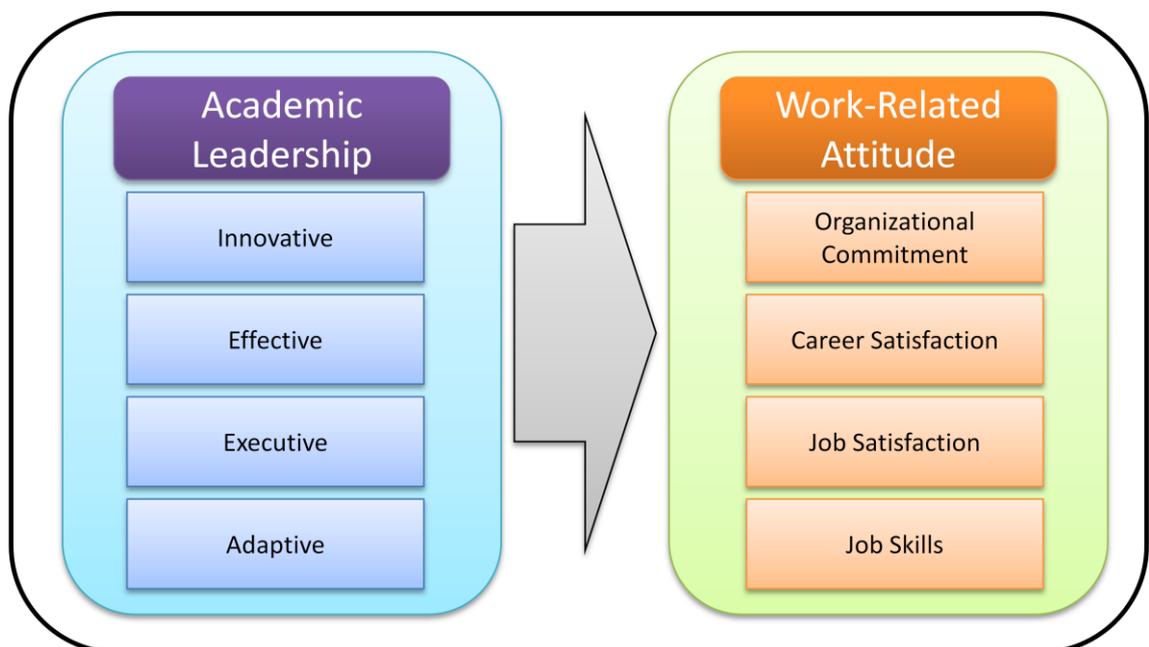
4.17.1 Pearson Correlation Coefficient

From the above study's framework, the Pearson correlation coefficients are presented in Table 4.34. Cohen (1988) claims the correlation coefficient value ranging from 0.10 to 0.29 is small; 0.30 to 0.49 is medium; and 0.50 to 1.0 is large. Moreover, majority variables have correlation coefficient values below 0.70 (Pallant, 2007) except some factors in relation to total of academic leadership and work-related attitude. Meanwhile the correlation coefficient between academic leadership and work-related attitude is 0.527 which is in accordance with Pallant's claim. Thus, all variables will be retained in this study.

The correlations between academic leadership and work-related attitude are elaborated in this section. Preliminary analyses are performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. Further, the size of the value of the correlation coefficient could range from -1.00 to 1.00 (Pallant, 2007). This value indicates the strength of the relationship between two variables. A correlation of 0 indicates no relationship at all. Meanwhile, a correlation of 1.0 indicates a perfect positive correlation and a value of -1.0 indicates a perfect negative correlation. Cohen (1988; in Pallant 2007) suggests the correlation coefficient value range from 0.10 to 0.29 is small, 0.30 to 0.49 is medium and 0.50 to 1.0 is large.

The correlation coefficient value ranges of academic leadership and work-related attitude variy from 0.19 to 0.84. The largest correlation coefficient value is between career satisfaction and work-related attitude (r = 0.84). Meanwhile, the smallest correlation coefficient value is between innovative and job satisfaction (r = 0.19). Further, all correlation coefficient are statistically significant at the 0.01 level.

For academic leadership factors, the correlation coefficient for innovative and other variables is between 0.19 and 0.84. The correlation coefficient for effective and other variables is between 0.21 and 0.79. The correlation coefficient for executive and other variables is between 0.32 and 0.81. Finally, the correlation coefficient for adaptive and other variables is between 0.20 and 0.75. On the other hand, for work-related attitude, the correlation coefficient for organizational commitment and other variables is 0.44 and 0.78. The correlation coefficient for career satisfaction and other variables is 0.37 and 0.84. The correlation coefficient for job satisfaction and other variables is 0.29 and 0.82. The correlation coefficient for job skills and others is 0.57 and 0.73. Finally, the correlation analysis on overall of academic leadership and work-related attitude variables is statistically significant with a p value of 0.51.

There is large direct association among some variables in the study. A large direct association of r ≥ 0.5 is between academic leadership and work-related attitude (r = 0.51). Further, there is a large direct association between academic leadership with innovative (r = 0.82), effective (r = 0.79), executive (r = 0.82), adaptive (r = 0.75) and job skills (r = 0.57). Academic leadership hs a medium direct association between 0.49 ≥ r ≥ 0.30 with organizational commitment (r = 0.46) and career satisfaction (r = 0.37). Moreover, academic leadership has a small direct association between 0.29 ≥ r ≥ 0.10

with job satisfaction (r = 0.29). On the other hand, for work-related attitude, it has a large direct association of r ≥ 0.5 with executive (r = 0.52), organizational commitment (r = 0.78), career satisfaction (r = 0.84), job satisfaction (r = 0.82) and job skills (r = 0.73). Further work-related attitude has a medium direct association between 0.49 ≥ r ≥ 0.30 with innovative (r = 0.45) and adaptive (r = 0.30).

There are several large direct associations with r ≥ 0.50 between independent and dependent factors. For independent variables, several medium direct associations are between innovative with executive (r = 0.63) and job skills (0.54). Further, effective has a large direct association with executive (r = 0.59) and adaptive (r = 0.51). Executive has a large direct association with job satisfaction (r = 0.55). For dependent variables, organizational commitment has a large direct association with job satisfaction (r = 0.53) and medium direct association with career satisfaction (r = 0.49). Career satisfaction has a large direct association with job satisfaction (r = 0.55) and career satisfaction (r = 0.53).

There are several medium direct associations with 0.49 ≥ r ≥ 0.30 between independent and dependent factors. For independent variables, several medium direct associations are innovative with effective (r = 0.47), adaptive (r = 0.43), organizational commitment (r = 0.45) and job satisfaction (r = 0.19). Further, several medium direct associations between effective with organizational commitment (r = 0.34), career satisfaction (r = 0.24), job satisfaction (r = 21) and job skills (r = 0.38). Executive has a medium direct association with adaptive (r = 0.41), organizational commitment (r = 0.41) and career satisfaction (r = 0.42) and job satisfaction (r = 0.32). Adaptive has medium direct relationships with job skills (r = 0.33). For dependent variables, organizational commitment has a medium direct association with career satisfaction (r = 0.49) and job skills (r = 0.43). Job satisfaction has a medium direct association with job skills (r = 0.49).

There are several small direct associations with 0.29 ≥ r ≥ 0.10 between independent and dependent factors. For independent variables, a small direct association is innovative with job satisfaction (r = 0.19). Effective has a small direct association toward career satisfaction (r = 0.24) and job satisfaction (r = 0.21). Finally, adaptive has small direct association toward organizational commitment (r = 0.26), career satisfaction (r = 0.20) and job satisfaction (r = 0.22).

Table 4.34: Pearson Correlations between Academic Leadership and Work-Related Attitude Factors

		1	2	3	4	5	6	7	8	9	10
1 Innovative	Pearson Correlation	1	.473**	.633**	.425**	.446**	.334**	.190**	.538**	.818**	.454**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.005	.000	.000	.000
2 Effective	Pearson Correlation		1	.588**	.501**	.338**	.242**	.211**	.383**	.786**	.356**
	Sig. (2-tailed)			.000	.000	.000	.000	.002	.000	.000	.000
3 Executive	Pearson Correlation			1	.414**	.414**	.420**	.322**	.548**	.811**	.522**
	Sig. (2-tailed)				.000	.000	.000	.000	.000	.000	.000
4 Adaptive	Pearson Correlation				1	.256**	.195**	.220**	.329**	.753**	.302**
	Sig. (2-tailed)					.000	.004	.001	.000	.000	.000
5 Organizational Commitment	Pearson Correlation					1	.488**	.528**	.436**	.459**	.779**
	Sig. (2-tailed)						.000	.000	.000	.000	.000
6 Career Satisfaction	Pearson Correlation						1	.549**	.531**	.371**	.837**
	Sig. (2-tailed)							.000	.000	.000	.000
7 Job Satisfaction	Pearson Correlation							1	.493**	.292**	.817**
	Sig. (2-tailed)								.000	.000	.000
8 Job Skills	Pearson Correlation								1	.567**	.728**
	Sig. (2-tailed)									.000	.000
9 Academic Leadership	Pearson Correlation									1	.512**
	Sig. (2-tailed)										.000
10 Work-Related Attitude	Pearson Correlation										1
	Sig. (2-tailed)										

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

4.18   Descriptive Statistics for Variables

The descriptive statistics for the variables of academic leadership and work-related attitude are presented in Table 4.35. The academic leadership mean is 3.89 on a five-point Likert scale with a minimum of 3.17 and a maximum of 4.97. This could be concluded that academic leadership is considered strongly in agreement by respondents in the public universities.

Meanwhile for work-related attitude, the mean is 3.80 on a five-point Likert scale with a minimum of 2.40 and a maximum of 5.00. As such, work-related attitude is considered highly satisfied and agreed by respondents. The data collected based in this study can be considered as robust, representative of the samples and normal for overall academic leadership and work-related attitude.

Table 4.35: Summary Statistics for Academic Leadership and Work-Related Attitude

Academic Leadership	N	Min	Max	Mean	SD	Skewness	Kurtosis
Academic Leadership	225	3.17	4.97	3.881	0.326	0.557	0.756
Work-Related Attitude	245	2.40	5.00	3.801	0.522	-0.083	-0.036

4.19   Descriptive Statistics for Academic Leadership Factors

There are four factors for academic leadership in this study. The factors are innovative, effective, executive and adaptive. Based on academic leadership factors, the mean for innovative, effective, executive and adaptive are 3.69, 4.10, 4.11 and 3.67, respectively. Further the minimum and maximum on a Likert scale of innovative, effective, executive and adaptive are between 2.5 and 5.0, 3.1 and 5.0, 3.0 and 5.0, and 2.64 and 4.91, respectively. These findings conclude that respondents indicate high agreement on the above factors of academic leadership. Table 4.36 depicts the descriptive statistics for academic leadership factors on mean, standard deviation, skewness and kurtosis. The data collected based in this study can be considered as robust, representative of the samples and normal.

Table 4.36: Descriptive Statistics for Academic Leadership Factors

Academic Leadership	N	Min	Max	Mean	SD	Skewness	Kurtosis
Innovative	243	2.50	5.00	3.691	0.487	0.057	0.333
Effective	246	3.10	5.00	4.100	0.351	0.450	0.276
Executive	249	3.00	5.00	4.111	0.362	0.224	0.455
Adaptive	251	2.25	4.88	3.618	0.481	-0.247	0.018

4.19.1 Innovative

Based on respondents' perspective on innovative, the mean for innovative factor is between 3.28 and 4.06 on a five-point Likert scale. This shows that most participants indicate they are prone toward strongly agree. There are 18 items in the innovative factor. The factor is composed by 10 items from visionary, four items from charisma, three items from competency and one item from transformational leadership. The items of innovative factor are listed in Table 4.37.

There are two items where mean is above 4.0, namely "I do assign members to particular tasks" and "I do inspire member through talking" with 4.06 and 4.00, respectively. Further the remaining items are above 3.0, namely "I am able to handle complex problems"; "I do make motivational talks to stimulate members"; "I do speak with a strong inner confidence"; "I can inspire enthusiasm among members on a project"; "I put convincing arguments among members"; "I do speak as a representative of members"; "I am manageable when too many demands are made of me"; "I do represent members at outside meetings"; "I do influence members on my point of view"; "I do speak for members when visitors are present"; "I can reduce mad house to system and order"; "I act as the spokesman of members"; "I am a convincing talker"; "I am a very persuasive talker"; "I do schedule the work to be done" and "I am very skilful in an argument" with the mean of 3.98, 3.96, 3.93, 3.91, 3.85, 3.74, 3.66, 3.66, 3.62, 3.58, 3.57, 3.53, 3.43, 3.40, 3.34 and 3.28, respectively.

Table 4.37: Innovative Factor

Innovative	N	Min	Max	Mean	SD	Skewness	Kurtosis
(TL6) I do assign members to particular tasks	259	3.000	5.000	4.062	0.494	0.138	1.055
(VY8) I do inspire members through talking	259	3.000	5.000	4.000	0.610	0.000	-0.284
(CY1) I am able to handle complex problems	259	3.000	5.000	3.985	0.570	-0.002	0.108

(VY1) I do make motivational talks to stimulate members	260	2.000	5.000	3.958	0.792	-0.958	1.024
(VY7) I do speak with a strong inner confidence	259	3.000	5.000	3.931	0.600	0.026	-0.220
(VY10) I can inspire enthusiasm among members on a project	261	3.000	5.000	3.908	0.594	0.028	-0.197
(VY2) I put convincing arguments among members	260	2.000	5.000	3.854	0.742	-0.846	0.959
(CH3) I do speak as a representative of members	255	2.000	5.000	3.741	0.885	-0.568	-0.300
(CY5) I am manageable when too many demands are made of me	260	2.000	5.000	3.658	0.742	-0.783	0.314
(CH5) I do represent members at outside meetings	259	2.000	5.000	3.656	0.903	-0.602	-0.434
(VY3) I do influence members on my point of view	258	2.000	5.000	3.616	0.880	-0.618	-0.413
(CH4) I do speak for members when visitors are present	260	2.000	5.000	3.577	0.882	-0.491	-0.548
(CY4) I can reduce mad house to system and order	260	2.000	5.000	3.565	0.708	-0.069	-0.214
(CH1) I act as the spokesman of members	260	2.000	5.000	3.535	0.931	-0.246	-0.821
(VY6) I am a convincing talker	259	2.000	5.000	3.429	0.820	-0.045	-0.541
(VY4) I am a very persuasive talker	257	2.000	5.000	3.405	0.838	0.124	-0.539
(VY9) I do schedule the work to be done	261	2.000	5.000	3.341	0.921	-0.253	-1.094
(VY5) I am very skilful in an argument	260	2.000	5.000	3.281	0.853	0.103	-0.680

4.19.2 Effective

Based on respondents' perspective on effective, the mean for effective factor is between 3.77 and 4.45 on a five-point Likert scale. This shows that most participants indicate they are prone toward strongly agree. There are 10 items in the effective factor. The factor is composed by items from effective leadership variables. The items of effective factor are listed in Table 4.38.

There are seven items which have a mean above 4.0, namely "I do encourage idea contributions by members"; "I do encourage members to exercise good judgment"; "I do allow members a high degree of initiative"; "I permit members to use their own judgement in solving problems"; "I do let members to work the way they think best"; "I do assign a task for members to handle"; "I allow members to do the job with minimal supervision" and "I allow members a complete freedom in their work" with a mean of 4.45, 4.24, 4.20, 4.15, 4.13, 4.03, 4.00 and 4.00. Further, there are two items with a mean below 4.0, namely "I do allow members any freedom of action" and "I do allow members to set their own pace" with a mean of 3.98 and 3.77, respectively.

Table 4.38: Effective Factor

Effective	N	Min	Max	Mean	SD	Skewness	Kurtosis
(EL3) I do encourage idea contributions by members	255	4.00	5.00	4.455	0.499	0.182	-1.982
(EL9) I do encourage members to exercise good judgment	261	3.00	5.00	4.241	0.488	0.488	-0.218
(EL8) I do allow members a high degree of initiative	261	3.00	5.00	4.199	0.510	0.278	0.100
(EL2) I permit members to use their own judgement in solving problems	258	3.00	5.00	4.151	0.548	0.075	0.080
(EL4) I do let members to work the way they think best	260	3.00	5.00	4.131	0.554	0.050	0.090
(EL5) I do assign a task for members to handle	259	3.00	5.00	4.031	0.563	0.009	0.184
(EL6) I allow members to do the job with minimal supervision	259	2.00	5.00	4.008	0.641	-1.253	3.467
(EL1) I allow members a complete freedom in their work	261	3.00	5.00	3.996	0.642	0.003	-0.548
(EL7) I do allow members any freedom of action	258	3.00	5.00	3.984	0.536	-0.014	0.519
(EL10) I do allow members to set their own pace	261	2.00	5.00	3.774	0.859	-0.870	0.218

4.19.3 Executive

Based on respondents' perspective on executive, the mean for executive factor is between 3.90 and 4.39 on a five-point Likert scale. This shows that most participants indicate they are prone toward strongly agree. There are 10 items in the executive factor. The factor is composed by eight items from transformational leadership, and one item each from competency and charisma, respectively. The items of executive factor are listed in Table 4.39.

There are several items in the executive factor with a mean above 4.0, namely "I do share my ideas among members"; "I let members know what are expected of them"; "I do ask member to follow rules and regulations"; "I do encourage the use of work procedures"; "I do make my attitudes clear to members"; "I do make sure that my part among members is understood"; "I do schedule the work to be done"; "I do get my works organized" and "I do maintain standards of performance on members" with a mean of 4.39, 4.22, 4.14, 4.11, 4.11, 4.10, 4.10, 4.07 and 4.00, respectively. There is only one item, "I let others know about the members' activities," with mean of 3.31.

Table 4.39: Executive Factor

Executive	N	Min	Max	Mean	SD	Skewness	Kurtosis
(TL3) I do share my ideas among members	257	3.00	5.00	4.389	0.534	-0.012	-1.052
(TL1) I let members know what are expected of them	261	3.00	5.00	4.222	0.545	0.089	-0.207
(TL10) I do ask member to follow rules and regulations	259	3.00	5.00	4.135	0.572	0.004	-0.076
(TL2) I do encourage the use of work procedures	258	2.00	5.00	4.112	0.683	-0.959	2.117
(TL4) I do make my attitudes clear to members	259	3.00	5.00	4.112	0.512	0.171	0.602
(TL7) I do make sure that my part among members is understood	260	3.00	5.00	4.104	0.466	0.354	1.289
(TL8) I do schedule the work to be done	260	3.00	5.00	4.100	0.532	0.096	0.413
(CY3) I do get my works organized	256	2.00	5.00	4.066	0.735	-0.940	1.476
(TL9) I do maintain standards of performance on members	261	3.00	5.00	4.000	0.541	0.000	0.466
(CH2) I let others know about the members' activities	258	2.00	5.00	3.895	0.728	-0.752	0.924

4.19.4 Adaptive

Based on respondents' perspective on adaptive, the mean for adaptive factor is between 3.00 and 3.97 on a five-point Likert scale. This shows that most participants indicated they are prone toward strongly agree. There are eight items in the adaptive factor. The factor is composed by eight items from adaptable to change. The items of adaptive factor are listed in Table 4.40.

All items in the adaptive factor are considered toward an agreement with a mean above 3.0, namely "I am positive about the outcome of any new procedure"; "I can accept defeat in a calm way"; "I do remain calm in facing uncertain situation"; "I do wait patiently for the results of a decision"; "I am patient to wait for an outcome"; "I am able to delay action until the proper time"; "I am able to tolerate postponement and uncertainty" and "I can accept delays without being upset" with the mean of 3.97, 3.87, 3.80, 3.71, 3.65, 3.61, 3.32 and 3.00.

Table 4.40: Adaptive Factor

Adaptive	N	Min	Max	Mean	SD	Skewness	Kurtosis
(AC10) I am positive about the outcome of any new procedure	260	3.00	5.00	3.969	0.555	-0.014	0.277
(AC3) I can accept defeat in a calm way	257	2.00	5.00	3.872	0.709	-0.804	1.118
(AC8) I do remain calm in facing uncertain situations	258	2.00	5.00	3.798	0.742	-0.752	0.668

	N	Min	Max	Mean	SD	Skewness	Kurtosis
(AC1) I do wait patiently for the results of a decision	261	2.00	5.00	3.713	0.812	-0.861	0.273
(AC7) I am patient to wait for an outcome	258	2.00	5.00	3.651	0.800	-0.893	0.159
(AC9) I am able to delay action until the proper time	261	2.00	5.00	3.609	0.780	-0.809	0.032
(AC6) I am able to tolerate postponement and uncertainty	260	2.00	5.00	3.323	0.940	-0.265	-1.198
(AC4) I can accept delays without being upset	258	2.00	4.00	3.004	0.884	-0.008	-1.726

4.20 Descriptive Statistics for Work-Related Attitude Factors

Four items appear under work-related attitude factors namely organizational commitment, career satisfaction, job satisfaction and job skills. The mean for those factors are 3.82, 3.73, 3.69 and 3.97, respectively. The total mean for work-related attitude is 3.80. It can be concluded that survey participants are favouring a high agreement on organizational commitment, career satisfaction, job satisfaction and job skills. Table 4.41 depicts the descriptive statistics for academic leadership factors on mean, standard deviation, skewness and kurtosis. The data collected based in this study could be considered as robust, representative of the samples and normal.

Table 4.41: Descriptive Statistics for Work-Related Attitude Factors

Work-Related Attitude	N	Min	Max	Mean	SD	Skewness	Kurtosis
Organizational Commitment	249	2.10	5.00	3.819	0.666	-0.352	-0.125
Career Satisfaction	257	2.00	5.00	3.727	0.789	-0.307	-0.484
Job Satisfaction	258	1.80	5.00	3.692	0.684	-0.379	0.080
Job Skills	259	2.60	5.00	3.968	0.466	-0.046	0.703

4.20.1 Organizational Commitment

For organizational commitment, the mean is between 3.42 and 4.18. The factor comprises of 10 items from organizational commitment variables. There are two items where the mean is more than 4.0. The items were "I am willing to put in a greatest deal of effort beyond that normally expected in order to help this organization to be successful, and I really care about the fate of this organization" giving a mean of 4.14 and 4.18, respectively.

The remaining items of organizational commitment give a mean below 4.0 that are between 3.42 and 3.98. The items "I would expect almost any type of job assignment in order to keep working for this organization"; "I find that my values and the organization's values are very similar"; "This organization really inspires the very best

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in me in the way of job performance"; "For me this is the best of all possible organization for which to work"; "I talk up this organization to my friends as a great organization to work for"; "I am extremely glad that I chose this organization to work for over to others I was considering at the time I joined"; "I am proud to tell others that I am part of this organization" and "I feel very loyal to this organization" are 3.42, 3.44, 3.61, 3.66, 3.81, 3.89, 3.98 and 3.98, respectively. The items of organizational commitment factor are listed in Table 4.42.

Table 4.42: Organizational Commitment Factor

Organizational Commitment	N	Min	Max	Mean	SD	Skewness	Kurtosis
(OC9) I really care about the fate of this organization	257	3.00	5.00	4.183	0.663	-0.220	-0.753
(OC1) I am willing to put in a greatest del of effort beyond that normally expected in order to help this organization be successful	257	2.00	5.00	4.144	0.728	-0.840	1.114
(OC3) I feel very loyal to this organization	257	2.00	5.00	3.984	0.866	-0.661	-0.098
(OC6) I am proud to tell others that I am part of this organization	256	2.00	5.00	3.984	0.894	-0.699	-0.149
(OC8) I am extremely glad that I chose this organization to work for over others I was considering at the time I joined	254	2.00	5.00	3.894	0.848	-0.656	0.040
(OC2) I talk up this organization to my friends as a great organization to work for	257	2.00	5.00	3.813	0.836	-0.606	-0.002
(OC10) For me, this is the best of all possible organization for which to work	253	2.00	5.00	3.664	0.997	-0.279	-0.956
(OC7) This organization really inspires the very best in me in the way of job performance	257	2.00	5.00	3.611	0.954	-0.348	-0.803
(OC5) I find that my values and the organization's values are very similar	257	2.00	5.00	3.440	0.938	-0.210	-0.942
(OC4) I would accept almost any type of job assignment in order to keep working for this organization	257	2.00	5.00	3.416	0.924	-0.142	-0.908

4.20.2 Career Satisfaction

For career satisfaction, the mean is between 3.62 and 3.83. The factor comprises of five items from career satisfaction variables. All items' mean are below 4.0 but above the midway toward an agreement. "I am satisfied with the progress I have made toward achieving my overall career goals"; "I am satisfied with the success I have achieved in my career"; "I am satisfied with the utilization of my skills"; "I am satisfied with my quite high quality of work" and "I am satisfied with the opportunity to develop my skills" are 3.62, 3.63, 3.74, 3.83 and 3.83, respectively. The items of career satisfaction factor are listed in Table 4.43.

Table 4.43: Career Satisfaction Factor

Career Satisfaction	N	Min	Max	Mean	SD	Skewness	Kurtosis
(CS3) I am satisfied with the opportunity to develop my skills	259	2.00	5.00	3.834	0.906	-0.799	-0.008
(CS5) I am satisfied with my quite high quality of work	259	2.00	5.00	3.826	0.879	-0.621	-0.161
(CS4) I am satisfied with the utilization of my skills	257	2.00	5.00	3.743	0.933	-0.599	-0.447
(CS1) I am satisfied with the success I have achieved in my career	259	2.00	5.00	3.633	1.016	-0.512	-0.888
(CS2) I am satisfied with the progress I have made toward achieving my overall career goals	259	2.00	5.00	3.618	1.018	-0.468	-0.932

4.20.3 Job Satisfaction

For job satisfaction, the mean is between 3.52 and 3.90. The factor comprises of five items from job satisfaction namely JS6, JS7, JS8, JS9 and JS10. The items "I am satisfied with the amount of pay received"; "I am satisfied with the amount of work I do"; "I am satisfied with the chances for advancement of this job"; I am satisfied with the working conditions" and "I am satisfied with the feeling of accomplishment I get from the job" are 3.52, 3.64, 3.68, 3.70 and 3.90, respectively. The items of job satisfaction factor are listed in Table 4.44.

Table 4.44: Job Satisfaction Factor

Job Satisfaction	N	Min	Max	Mean	SD	Skewness	Kurtosis
(JS10) I am satisfied with the feeling of accomplishment I get from the job	259	2.00	5.00	3.903	0.823	-0.830	0.513
(JS9) I am satisfied with the working conditions	259	2.00	5.00	3.703	0.894	-0.691	-0.254
(JS8) I am satisfied with the chances for advancement of this job	260	2.00	5.00	3.681	0.893	-0.605	-0.359
(JS7) I am satisfied with the amount of work I do	260	2.00	5.00	3.638	0.879	-0.704	-0.311
(JS6) I am satisfied with the amount of pay received	260	1.00	5.00	3.515	1.004	-0.689	-0.182

4.20.4 Job Skills

For job skills, the mean is between 3.77 and 4.19. The factor comprised of five items from job satisfaction namely JS1, JS2, JS3, JS4 and JS5. There are two items that are above 4.0 for the mean. They are "I am satisfied that my job provides me a steady employment" and "I am satisfied having the change to do something that makes use of my abilities" with the mean 4.13 and 4.19, respectively. Three other items are with the mean below 4.0. The mean for "I am satisfied the way I handle my colleagues"; "I am

satisfied having the chance to tell people what to do" and "I am satisfied on my competence in making decision" are 3.77, 3.78 and 3.97, respectively. The items of job skills factor are listed in Table 4.45.

Table 4.45: Job Skills Factor

Job Skills	N	Min	Max	Mean	SD	Skewness	Kurtosis
(JS5) I am satisfied having the change to do something that makes use of my abilities	260	3.00	5.00	4.185	0.612	-0.126	-0.470
(JS3) I am satisfied that my job provides me a steady employment	261	3.00	5.00	4.134	0.602	-0.063	-0.323
(JS2) I am satisfied on my competence in making decision	261	3.00	5.00	3.966	0.529	-0.039	0.605
(JS4) I am satisfied having the chance to tell people what to do	259	2.00	5.00	3.776	0.770	-0.567	0.212
(JS1) I am satisfied the way I handle my colleagues	261	2.00	5.00	3.770	0.734	-0.902	0.864

4.21 T-Test Analysis

T-test is used to compare the mean score on some continuous variables. In this study, independent sample t-tests are used on two different independent groups and with the interest of comparing the scores. The independent sample t-tests are conducted on gender and marital status of respondents against academic leadership and work-related attitude factors. The effect of size for independent-samples t-test is based on Cohen (1988) where the interpretation of the values: 0.01 has small effect, 0.06 has moderate effect, and 0.14 has large effect. These values indicate the magnitude of the differences between groups (Pallant, 2007). Further, Levene's test with the cut-off of 0.05 indicates the assumption of equal variance is not violated (Pallant, 2007). The value of Sig. (2-tailed) is used to determine the significant difference between two groups. As such, if p value is above 0.05, there is no significant difference between the two groups.

Several t-test analyses are conducted on gender and marital status against academic leadership and work-related attitude. Appendix 10 shows the t-test result of gender and academic leadership. Appendix 11 shows the t-test results of gender and work-related attitude. Appendix 12 shows the t-test result of marital status and academic leadership. Appendix 13 shows the t-test results of marital status and work-related attitude.

4.21.1 Gender and Academic Leadership

In summary, the result of the independent t-test presented in the Table 4.46 indicates that female respondents (M = 3.87, SD = 0.32) had reported lower average scores on their perceptions of overall academic leadership capabilities of faculty members in their respective institutions in-comparison to male respondents (M = 3.91, SD = 0.34). Furthermore, this difference was not statistically significant [t(200) = 1.47, p = 0.35 (two-tailed)]. The mean difference between genders was 0.04 and the effect size was low (d = -0.13). The 95% confidence interval for the estimated population mean difference is between CI: -0.49 to 0.14. It was therefore concluded that gender does not affect academic leadership. This is important findings, as it rejects existing theory on the impact of gender on academic leadership. Study by Rausch (2004), Chesterman, Ross-Smith and Peters (2003), and Growe and Mongomery (1999) reported that gender significantly impact upon academic leadership. They stated that women faculty members confident of their capacity to influence events and to effect changes, express great enthusiasm on achievement, focused on values and highlighted on the importance of collaborations and consultation (Chesterman et al., 2003), universities can no longer be seen as totally dominate by male power (Chesterman et al., 2003), women who seek leadership positions face barriers (Growe & Mongomery, 1999) and women many times give up because they become overwhelmed in dealing with obvious barriers (Growe & Mongomery, 1999). Interestingly in this study, faculty members of Malaysian public universities do not perceive gender could cause differences on their academic leadership.

Table 4.46: Test of Differences of Academic Leadership Variables on Gender

	Male		Female			
	Mean	SD	Mean	SD	t	p
Innovative	3.725	0.495	3.646	0.456	1.175	0.495
Effective	4.120	0.346	4.088	0.383	0.608	0.272
Executive	4.117	0.379	4.113	0.338	0.064	0.344
Adaptive	3.685	0.477	3.625	0.427	0.936	0.421
Academic Leadership	3.904	0.341	3.868	0.320	1.472	0.835

4.21.2 Gender and Work-Related Attitude

In summary, the result of the independent t-test presented in the Table 4.47 indicates that female respondents (M = 3.75, SD = 0.54) had reported lower average scores on their perceptions of overall work-related attitude capabilities of faculty members in their respective institutions in-comparison to male respondents (M = 3.86, SD = 0.34).

Furthermore, this difference was not statistically significant [t(200) = 1.56, p = 0.12 (two-tailed)]. The mean difference between genders was 0.11 and the effect size was low (d = -0.22). The 95% confidence interval for the estimated population mean difference is between CI: -0.03 to 0.26. It was therefore concluded that gender does not affect work-related attitude. This is important findings, as it rejects existing theory on the impact of gender on work-related attitude. Studies by Mottaz (1986), and Heinisch and Jex (1997) reported significant impact upon work-related attitude. Faculty members must realize that gender may derive work satisfaction from different work rewards, work satisfaction among gender is based essentially on the same "set" of determinants (Mottaz, 1986), and females faced work-related depression but not for male (Heinisch & Jex, 1997). The result indicates that faculty members of Malaysian public universities do not perceive gender cause differences on their work-related attitude.

Table 4.47: Test of Differences of Work-Related Attitude Variables on Gender

	Male		Female			
	Mean	SD	Mean	SD	t	p
Organizational Commitment	3.904	0.689	3.767	0.636	1.472	0.705
Career Satisfaction	3.764	0.759	3.641	0.837	1.085	0.070
Job Satisfaction	3.744	0.710	3.688	0.652	2.098	0.911
Job Skills	4.036	0.490	3.896	0.450	2.098	0.942
Work-Related Attitude	3.862	0.341	3.748	0.543	1.557	0.728

4.21.3 Marital Status and Academic Leadership

In summary, the result of the independent t-test presented in the Table 4.48 indicates that married respondents (M = 3.81, SD = 0.34) had reported lower average scores on their perceptions of overall academic leadership capabilities of faculty members in their respective institutions in-comparison to single respondents (M = 3.84, SD = 0.25). Furthermore, this difference was not statistically significant [t(196) = -0.74, p = 0.46 (two-tailed)]. The mean difference between marital status was -0.06 and the effect size was low (d = 0.17). The 95% confidence interval for the estimated population mean difference is between CI: -0.21 to 0.10. It was therefore concluded that marital status does not affect academic leadership. This is important findings, as it rejects existing theory on the impact of marital status on academic leadership. Studies by Ferrer and Katerndahl (2002) had reported that marital status significantly impact upon academic leadership to the extent that faculty members' marital status was associated with lower productivity. Meanwhile, Bonnett (1994) finding is consistent as marital status shows

no differences. Thus faculty members of Malaysian public universities do not perceive marital status could cause differences on their academic leadership.

Table 4.48: Test of Differences of Academic Leadership Variables on Marital Status

	Single		Married			
	Mean	SD	Mean	SD	T	p
Innovative	3.506	0.465	3.713	0.467	-1.891	0.662
Effective	4.140	0.293	4.101	0.377	0.446	0.233
Executive	4.095	0.315	4.123	0.362	-0.332	0.366
Adaptive	3.625	0.427	3.657	0.457	-0.301	0.958
Academic Leadership	3.841	0.250	3.807	0.338	-0.736	0.193

4.21.4 Marital Status and Work-Related Attitude

In summary, the result of the independent t-test presented in the Table 4.49 indicates that single respondents (M = 3.77, SD = 0.50) had reported lower average scores on their perceptions of overall academic leadership capabilities of faculty members in their respective institutions in-comparison to married respondents (M = 3.81, SD = 0.53). Furthermore, this difference was not statistically significant [t(196) = -0.34, p = 0.73 (two-tailed)]. The mean difference between marital status was -0.04 and the effect size was low (d = 0.08). The 95% confidence interval for the estimated population mean difference is between CI: -0.29 to 0.20. It was therefore concluded that marital status does not affect academic leadership. This is important findings, as it rejects existing theory on the impact of marital status on work-related attitude. Studies by Toutkoushian, Bellas and Moore (2007), and Dowden and Tellier (2004) had reported that marital status significantly impact upon work-related attitude to the extent that faculty members as marital status still matter in determining faculty salary (Toutkoushian et al., 2007) and among correctional personnel (Dowden & Tellier, 2004). Thus faculty members of Malaysian public universities do not perceive marital status could cause differences on their work-related attitude.

Table 4.49: Test of Differences of Work-Related Attitude Variables on Marital Status

	Single		Married			
	Mean	SD	Mean	SD	t	p
Organizational Commitment	3.750	0.721	3.750	0.659	-0.580	0.875
Career Satisfaction	3.530	0.839	3.712	0.808	-0.953	0.772
Job Satisfaction	3.870	0.633	3.710	0.682	1.001	0.912
Job Skills	3.910	0.461	3.965	0.479	-0.490	0.858
Work-Related Attitude	3.765	0.500	3.807	0.528	-0.341	0.964

4.22   One-Way Analysis of Variance

A one-way analysis of variance (ANOVA) is used in comparing the mean scores on a continuous variable that have two or more groups. ANOVA looks at the impact of only one independent variable on the dependent variable. In this section, ANOVA is used to compare the mean score between each independent factors and dependent factors toward ethnicity, academic rank, qualification, academic discipline and administrative position.

4.22.1 Ethnicity

An ANOVA was conducted to explore the impact of ethnicity on academic leadership and work-related attitude. Subjects are divided three groups according to their ethnicity, known as Malays, Chinese and Indians. The outputs are depicted in Appendix 14 and 15.

Ethnics and Academic Leadership

For academic leadership, there is no statistically significant difference at the $p < 0.05$ level among factors in the ethnic groups: $F (3, 197) = 0.35$, $p = 0.79$. The impact of ethnic on innovative has no significance difference at the $p < 0.05$ level for the ethnic groups: $F (3, 197) = 0.05$, $p = 0.99$. Similarly, effective has no significance difference at the $p < 0.05$ level for the ethnic groups: $F (3, 197) = 1.45$, $p = 0.23$. Further, executive has no significance difference at the $p < 0.05$ level for the ethnic groups: $F (3, 197) = 0.70$, $p = 0.55$. Finally, adaptive has no significance difference at the $p < 0.05$ level for the ethnic groups: $F (3, 197) = 0.60$, $p = 0.61$. In summary, the result of the ANOVA presented in the Table 4.50 indicates that Chinese reported lower average scores on their perspective of overall academic leadership capabilities of faculty members in their respective institutions in comparison to Malays and Indians. It was therefore concluded that ethnics do not affect academic leadership. This is important findings, as it rejects existing theory on the impact of ethnics on academic leadership. Studies by Rausch (2004) had reported that ethnics significantly impact upon issues relating to academic leadership. Thus faculty members of Malaysian public universities do not perceive ethnics could cause differences on their academic leadership.

Table 4.50: Test of Differences of Academic Leadership Variables on Ethnics

	Malays		Chinese		Indians		
	Mean	SD	Mean	SD	Mean	SD	p

Innovative	3.680	0.495	3.722	0.213	3.622	0.386	0.985
Effective	4.109	0.372	3.900	0.149	4.280	0.179	0.229
Executive	4.117	0.360	3.980	0.167	4.220	0.396	0.553
Adaptive	3.666	0.458	3.538	0.387	3.450	0.349	0.613
Academic Leadership	3.893	0.340	3.785	0.123	3.893	0.246	0.792

<u>Ethnics and Work-Related Attitude</u>

For work-related attitude, there is no statistically significant difference at the $p < 0.05$ level among factors in the ethnic groups: $F(3, 197) = 1.56$, $p = 0.20$. The impact of ethnicity on organizational commitment has no significance difference at the $p < 0.05$ level for the ethnic groups: $F(3, 197) = 2.44$, $p = 0.07$. Similarly, career satisfaction has no significance difference at the $p < 0.05$ level for the ethnic groups: $F(3, 197) = 0.61$, $p = 0.61$. Further, job satisfaction has no significance difference at the $p < 0.05$ level for the ethnic groups: $F(3, 197) = 1.57$, $p = 0.20$. Finally, job skills has no significance difference at the $p < 0.05$ level for the ethnic groups: $F(3, 197) = 1.33$, $p = 0.27$. In summary, the result of the ANOVA presented in the Table 4.51 indicates that Chinese reported lower average scores on their perspective of overall work-related attitude of faculty members in their respective institutions against Malays and Indians. It was therefore concluded that ethnics do not affect work-related attitude. This is important findings, as it rejects existing theory on the impact of ethnics on work-related attitude. Studies by Ash (1972) had reported that ethnics significantly impact upon work-related attitude to the extent that managers must understand the job dissatisfaction. Thus this study shows that faculty members of Malaysian public universities do not perceive ethnics could cause differences on their work-related attitude.

Table 4.51: Test of Differences of Academic Leadership Variables on Ethnics

	Malays		Chinese		Indians		
	Mean	SD	Mean	SD	Mean	SD	p
Organizational Commitment	3.799	0.667	3.690	0.617	4.300	0.406	0.066
Career Satisfaction	3.685	0.803	3.480	0.812	3.720	0.687	0.610
Job Satisfaction	3.703	0.670	3.560	0.810	4.320	0.460	0.197
Job Skills	3.941	0.480	3.900	0.302	4.240	0.410	0.265
Work-Related Attitude	3.782	0.520	3.658	0.581	4.145	0.355	0.201

4.22.2 Academic Rank

An ANOVA was conducted to explore the impact of academic rank on academic leadership and work-related attitude. Subjects are divided into five groups according to their academic rank known as lecturer, senior lecturer, assistant professor, associate professor and professor. The outputs are depicted in Appendix 16 and 17.

Academic Rank and Academic Leadership

For academic leadership, there is statistically significant difference at the $p < 0.05$ level among factors in the academic rank groups: $F(4, 192) = 2.76$, $p = 0.03$. According to factors, the impact of academic rank on innovative and executive has significance difference at the $p < 0.05$ level for the academic rank groups: $F(4, 192) = 3.41$, $p = 0.01$ and $F(4, 192) = 3.18$, $p = 0.02$, respectively. Conversely, effective and adaptive has no significance difference at the $p < 0.05$ level for the academic rank groups: $F(4, 192) = 0.75$, $p = 0.56$ and $F(4, 192) = 1.22$, $p = 0.30$, respectively. In summary, the result of the ANOVA presented in the Table 4.52, faculty members indicate their differences on academic leadership. This finding is novel as almost none has reported the above result empirically.

Table 4.52: Test of Differences of Academic Leadership Variables on Academic Rank

	Lecturer		Senior Lecturer		Assistant Professor		Associate Professor		Professor		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	p
Innovative	3.541	0.472	3.748	0.447	3.715	0.490	3.786	0.496	3.899	0.466	0.010
Effective	4.048	0.336	4.134	0.393	4.150	0.374	4.125	0.336	4.165	0.442	0.558
Executive	4.019	0.341	4.164	0.354	4.125	0.399	4.204	0.350	4.277	0.353	0.015
Adaptive	3.594	0.443	3.666	0.460	3.875	0.433	3.755	0.343	3.677	0.564	0.303
Academic Leadership	3.800	0.314	3.928	0.346	3.966	0.329	3.967	0.263	4.000	0.389	0.029

Academic Rank and Work-Related Attitude

For work-related attitude, there is statistically significant difference at the $p < 0.05$ level among factors in the academic rank groups: $F(4, 192) = 5.24$, $p = 0.001$. According to factors, the impact of academic rank on organizational commitment, career satisfaction and job satisfaction has significance difference at the $p < 0.05$ level for the academic rank groups: $F(4, 192) = 2.82$, $p = 0.03$, $F(4, 192) = 5.64$, $p = 0.00$ and $F(4, 192) =$

3.27, p = 0.02, respectively. Conversely, job skills has no significance difference at the p < 0.05 level for the academic rank groups: F (4, 192) = 2.32, p = 0.06. In summary, the result of the ANOVA presented in the Table 4.53 indicates significant difference among faculty members' academic rank. The result is inconsistent with Bilimoria, Perry, Liang, Stoller, Higgins and Taylor (2006) as they found academic rank does not significantly affect job satisfaction of work-related attitude. In this study, it concludes that faculty member do perceive differences in their work-related attitude according to academic rank. In summary, faculty members of public universities in Malaysia do perceive their differences in work-related attitude based on academic rank which is novel in this study.

Table 4.53: Test of Differences of Work-Related Attitude Variables on Academic Rank

	Lecturer		Senior Lecturer		Assistant Professor		Associate Professor		Professor		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	p
Organizational Commitment	3.734	0.597	3.844	0.706	3.700	0.727	3.804	0.681	4.306	0.575	0.026
Career Satisfaction	3.430	0.759	3.728	0.902	3.728	0.902	3.950	0.622	4.271	0.524	0.000
Job Satisfaction	3.645	0.645	3.666	0.732	3.525	0.684	3.721	0.574	4.247	0.532	0.013
Job Skills	3.870	0.473	3.947	0.512	4.075	0.399	4.021	0.371	4.223	0.452	0.058
Work-Related Attitude	3.670	0.475	3.796	0.584	3.777	0.258	3.874	0.405	4.262	0.427	0.001

4.22.3 Qualification

An ANOVA was conducted to explore the impact of qualification on academic leadership and work-related attitude. Subjects are divided into five groups according to their qualification known as bachelor, master and doctorate degrees. The outputs are depicted in Appendix 18 and 19.

Qualification and Academic Leadership

For academic leadership, there is statistically significant difference at the p < 0.05 level among factors in the qualification groups: F (2, 193) = 4.30, p = 0.02. According to factors, the impact of qualification on innovative, effective and executive has significance difference at the p < 0.05 level for the qualification groups: F (2, 193) = 2.98, p = 0.05, F (2, 193) = 3.13, p = 0.05 and F (2, 193) = 3.55, p = 0.03, respectively.

Conversely, adaptive has no significance difference at the $p < 0.05$ level for the qualification groups: $F (3, 193) = 2.06$, $p = 0.13$. In summary, the result of the ANOVA presented in the Table 4.54 indicates that in our samples faculty members do experience differences on academic leadership based on their academic qualification. This finding is novel as almost none has reported any results on differences between academic qualification and academic leadership. As such, faculty member in Malaysian public universities consider qualification impacted their academic leadership.

Table 4.54: Test of Differences of Academic Leadership Variables on Qualification

	Bachelor		Master		Doctorate		
	Mean	SD	Mean	SD	Mean	SD	p
Innovative	3.500	0.297	3.595	0.476	3.755	0.477	0.053
Effective	3.800	0.245	4.052	0.340	4.151	0.387	0.046
Executive	3.775	0.236	4.062	0.327	4.155	0.366	0.031
Adaptive	3.313	0.462	3.604	0.445	3.694	0.455	0.130
Academic Leadership	3.597	0.091	3.828	0.312	3.939	0.341	0.015

Qualification and Work-Related Attitude

For work-related attitude, there is no statistically significant difference at the $p < 0.05$ level among factors in the qualification groups: $F (2, 193) = 5.24$, $p = 0.24$. According to factors, the impact of academic rank on career satisfaction has significance difference at the $p < 0.05$ level for the academic rank groups: $F (2, 193) = 3.76$, $p = 0.03$. Conversely, organizational commitment, job satisfaction and job skills has no significance difference at the $p < 0.05$ level for the academic rank groups: $F (2, 193) = 0.71$, $p = 0.49$, $F (2, 193) = 0.12$, $p = 0.89$ and $F (2, 193) = 1.00$, $p = 0.37$, respectively. In summary, the result of the ANOVA presented in the Table 4.55 indicates that in our samples faculty members indicate career satisfaction has a difference in their work-related attitude. This finding is consistent with Eam and Lawal (1999) in their study on librarian among Nigerian universities based on their academic qualifications.

Table 4.55: Test of Differences of Work-Related Attitude Variables on Qualification

	Bachelor		Master		Doctorate		
	Mean	SD	Mean	SD	Mean	SD	p
Organizational Commitment	3.425	0.465	3.818	0.603	3.828	0.717	0.492
Career Satisfaction	3.300	0.529	3.536	0.790	3.832	0.810	0.025
Job Satisfaction	3.600	0.432	3.679	0.686	3.717	0.678	0.891
Job Skills	3.950	0.191	3.899	0.476	3.996	0.482	0.370
Work-Related	3.569	0.344	3.733	0.501	3.843	0.538	0.240

Attitude							

4.22.4 Academic Discipline

An ANOVA was conducted to explore the impact of academic discipline on academic leadership and work-related attitude. Subjects are divided into four groups according to their academic discipline known as pure sciences, applied sciences, pure arts and applied arts. The outputs are depicted in Appendix 20 and 21.

Academic Discipline and Academic Leadership

For academic leadership, there is no statistically significant difference at the $p < 0.05$ level among factors in the academic discipline groups: $F (3, 194) = 0.16$, $p = 0.94$. According to factors, the impact of academic discipline on innovative, effective, executive and adaptive has no significance difference at the $p < 0.05$ level for the qualification groups: $F (3, 194) = 0.22$, $p = 0.89$, $F (3, 194) = 0.04$, $p = 0.76$, $F (3, 194) = 0.36$, $p = 0.61$ and $F (3, 194) = 0.09$, $p = 0.94$, respectively. In summary, the result of the ANOVA presented in the Table 4.56 indicates that faculty members of Malaysian public universities do not have any differences on academic leadership based on academic discipline. Moreover no such study has empirically reported the above finding which is novel in this study.

Table 4.56: Test of Differences of Academic Leadership Variables on Academic Discipline

	Pure Science		Applied Science		Pure Arts		Applied Arts		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	p
Innovative	3.729	0.538	3.697	0.482	3.643	0.212	3.650	0.478	0.891
Effective	4.112	0.427	4.108	0.353	4.129	0.304	4.093	0.359	0.756
Executive	4.194	0.378	4.118	0.325	4.086	0.384	4.099	0.375	0.613
Adaptive	3.699	0.492	3.645	0.441	3.607	0.264	3.659	0.473	0.938
Academic Leadership	3.933	0.379	3.892	0.325	3.866	0.246	3.875	0.329	0.936

Academic Discipline and Work-Related Attitude

For work-related attitude, there is no statistically significant difference at the $p < 0.05$ level among factors in the academic discipline groups: $F (3, 194) = 0.14$, $p = 0.94$. According to factors, the impact of qualification on innovative, effective, executive and adaptive has no significance difference at the $p < 0.05$ level for the qualification groups: $F (3, 194) = 0.21$, $p = 0.89$, $F (3, 194) = 0.04$, $p = 0.76$, $F (3, 194) = 0.60$, $p = 0.61$ and $F (3, 194) = 0.14$, $p = 0.94$, respectively. In summary, the result of the ANOVA presented in the Table 4.57 indicates that faculty members of Malaysian public universities do not

have any differences on academic leadership based on academic discipline. Moreover no such study has empirically reported the above finding which is novel in this study.

Table 4.57: Test of Differences of Work-Related Attitude Variables on Academic Discipline

	Pure Science		Applied Science		Pure Arts		Applied Arts		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	p
Organizational Commitment	3.712	0.698	3.847	0.658	3.800	0.821	3.811	0.659	0.891
Career Satisfaction	3.529	0.812	3.725	0.759	3.514	1.204	3.674	0.815	0.756
Job Satisfaction	3.882	0.725	3.725	0.634	3.771	0.454	3.649	0.745	0.613
Job Skills	3.965	0.580	3.972	0.490	4.029	0.594	3.936	0.431	0.938
Work-Related Attitude	3.772	0.541	3.817	0.487	3.779	0.656	3.768	0.552	0.936

4.22.5 Administrative Position

An ANOVA was conducted to explore the impact of administrative position on academic leadership and work-related attitude. Subjects are divided into seven groups according to their administrative position known as programme chairperson, deputy director, deputy dean, director and dean; and two other groups known as without position and other positions. The outputs are depicted in Appendix 22 and 23.

Administrative Position and Academic Leadership

For academic leadership, there is statistically significant difference at the $p < 0.05$ level among factors in the administrative position groups: $F (6, 195) = 2.91$, $p = 0.01$. According to factors, the impact of academic discipline on innovative and executive has significance difference at the $p < 0.05$ level for the qualification groups: $F (6, 195) = 4.36$, $p = 0.00$ and $F (6, 195) = 2.43$, $p = 0.03$, respectively. Conversely, the impact of academic discipline on effective and adaptive has no significance difference at the $p < 0.05$ level for the qualification groups: $F (6, 195) = 1.41$, $p = 0.21$ and $F (6, 195) = 0.89$, $p = 0.51$, respectively. In summary, the result of the ANOVA presented in the Table 4.58 indicates that faculty members of Malaysian public universities show differences in their academic leadership in terms of administrative position. Although there were almost no empirically works on administrative position and academic leadership, but Gmelch and Burns (1993) study on academic leadership and stress indicate a relationship between them. Moreover, Rowley and Sherman (2003) state that many academics must become a better leaders in academia. Thus this study result is novel in

revealing the landscape of administrative position and academic leadership in the Malaysian public universities among faculty members.

Table 4.58: Test of Differences of Academic Leadership Variables on Administrative Position

	Innovative		Effective		Executive		Adaptive		Academic Leadership	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Without Position	3.528	0.499	4.054	0.349	4.030	0.350	3.619	0.452	3.806	0.323
Programme Chairperson	3.817	0.404	4.101	0.391	4.191	0.357	3.696	0.468	3.964	0.334
Deputy Director	3.935	0.481	4.367	0.327	4.383	0.601	3.896	0.279	4.145	0.299
Deputy Dean	3.663	0.447	4.136	0.332	4.156	0.303	3.679	0.475	3.903	0.326
Director	3.995	0.436	4.091	0.359	4.218	0.286	3.671	0.516	3.994	0.355
Dean	3.846	0.363	4.172	0.413	4.194	0.248	3.681	0.423	3.973	0.255
Other Position	3.568	0.405	3.933	0.312	3.989	0.382	3.417	0.337	3.727	0.283
p	0.000		0.214		0.028		0.506		0.010	

<u>Administrative Position and Work-Related Attitude</u>

For work-related attitude, there is statistically significant difference at the $p < 0.05$ level among factors in the administrative position groups: $F (6, 195) = 3.81$, $p = 0.001$. According to factors, the impact of academic discipline on organizational commitment, career satisfaction and job skills has significance difference at the $p < 0.05$ level for the qualification groups: $F (6, 195) = 3.26$, $p = 0.00$, $F (6, 195) = 4.81$, $p = 0.00$ and $F (6, 195) = 2.29$, $p = 0.04$, respectively. Conversely, the impact of academic discipline on job satisfaction has no significance difference at the $p < 0.05$ level for the qualification groups: $F (6, 195) = 1.19$, $p = 0.31$. In summary, the result of the ANOVA presented in the Table 4.59 indicates that faculty members reported significant differences based on administrative position and work-related attitude. The study finding is consistent with Houston, Meyer and Paewai (2006) that suggest substantial differences in the level of satisfaction with particular aspects of respondents' job.

Table 4.59: Test of Differences of Work-Related Attitude Variables on Administrative Position

	Organizational Commitment		Career Satisfaction		Job Satisfaction		Job Skills		Work-Related Attitude	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Without Position	3.678	0.663	3.411	0.784	3.647	0.625	3.833	0.469	3.624	0.493
Programme	3.818	0.636	3.818	0.797	3.727	0.736	4.047	0.455	3.853	0.525

Chairperson										
Deputy Director	4.067	0.524	3.833	0.880	3.700	0.352	4.133	0.413	3.933	0.318
Deputy Dean	4.143	0.706	3.957	0.533	3.514	0.829	3.957	0.539	3.893	0.527
Director	3.991	0.757	4.218	0.690	4.036	0.784	4.200	0.537	4.111	0.531
Dean	4.278	0.429	4.200	0.586	3.967	0.537	4.089	0.419	4.133	0.412
Other Position	3.633	0.587	3.622	0.913	3.689	0.782	3.978	0.323	3.701	0.561
p	0.004		0.000		0.312		0.037		0.001	

4.23 Hypotheses Testing

The hypotheses are tested using both regression analysis and a standard t-test. In this study, hypotheses testing are based on the research framework of academic leadership and work-related attitude discovered after the factor analysis result and rationalization. Academic leadership factors are innovative, effective, executive and adaptive. For work-related attitude, the factors are organizational commitment, career satisfaction, job satisfaction and job skills.

The relationship between academic leadership and work-related attitude is analyzed using regression analyses. The first analysis combines all items pertaining to academic leadership into a single independent variable and all items pertaining to work-related attitude are also combined into a single dependent variable. The second analysis is individual items pertaining to academic leadership of independent variable and individual items pertaining to work-related attitude of dependent variable.

Based on the study framework after rationalization of factor analysis, the hypotheses are as follows:

H_{Main} : Academic leadership has a positive effect on work-related attitude.

H_1 : Academic leadership has a positive effect on organizational commitment.

H_{1a} : Innovative has a positive effect on organizational commitment.

H_{1b} : Effective has a positive effect on organizational commitment.

H_{1c} : Executive has a positive effect on organizational commitment.

H_{1d} : Adaptive has a positive effect on organizational commitment.

H_2 : Academic leadership has a positive effect on career satisfaction.

H_{2a} : Innovative has a positive effect on career satisfaction.

H_{2b} : Effective has a positive effect on career satisfaction.

H_{2c} : Executive has a positive effect on career satisfaction.

H_{2d} : Adaptive has a positive effect on career satisfaction.

H_3 : Academic leadership has a positive effect on job satisfaction.

H_{3a} : Innovative has a positive effect on job satisfaction.

H_{3b} : Effective has a positive effect on job satisfaction.

H_{3c} : Executive has a positive effect on job satisfaction.

H_{3d} : Adaptive has a positive effect job satisfaction.

H_4 : Academic leadership has a positive effect on job skills.

H_{4a} : Innovative has a positive effect on job skills.

H_{4b} : Effective has a positive effect on job skills.

H_{4c} : Executive has a positive effect on job skills.

H_{4d} : Adaptive has a positive effect on job skills.

4.24 Simple Regression Analysis

Simple regression is conducted on combined all items pertaining to academic leadership into a single independent variable and all items pertaining to work-related attitude are also combined into a single dependent variable. Further, Table 4.46 shows the result of simple regression between academic leadership and work-related attitude.

Table 4.60: Simple Regression Result on Overall of Academic Leadership and Work-Related Attitude Factors

Factor	Work-Related Attitude	
	Std Beta	Sig.
Academic Leadership	0.51	0.00
$R^2 =$ 0.26		
Adjusted $R^2 =$ 0.26		
Std Error = 0.45		
F Statistics = 74.93		
Sig F = 0.00		

Academic leadership is found to be a significant predictor of work-related attitude ($p < 0.001$). As seen, academic leadership accounts for 26% of the variation in work-related

attitude. The calculated F of 74.93 is significant at an alpha < 0.001. The positive beta of 0.51 indicates that academic leadership has a significant positive effect on work-related attitude. This indicates that there is significant statistical evidence for the positive relation relationship between academic leadership and work-related attitude. The association of the main hypothesis is shown in Figure 4.18.

Figure 4.18: Main Hypothesis
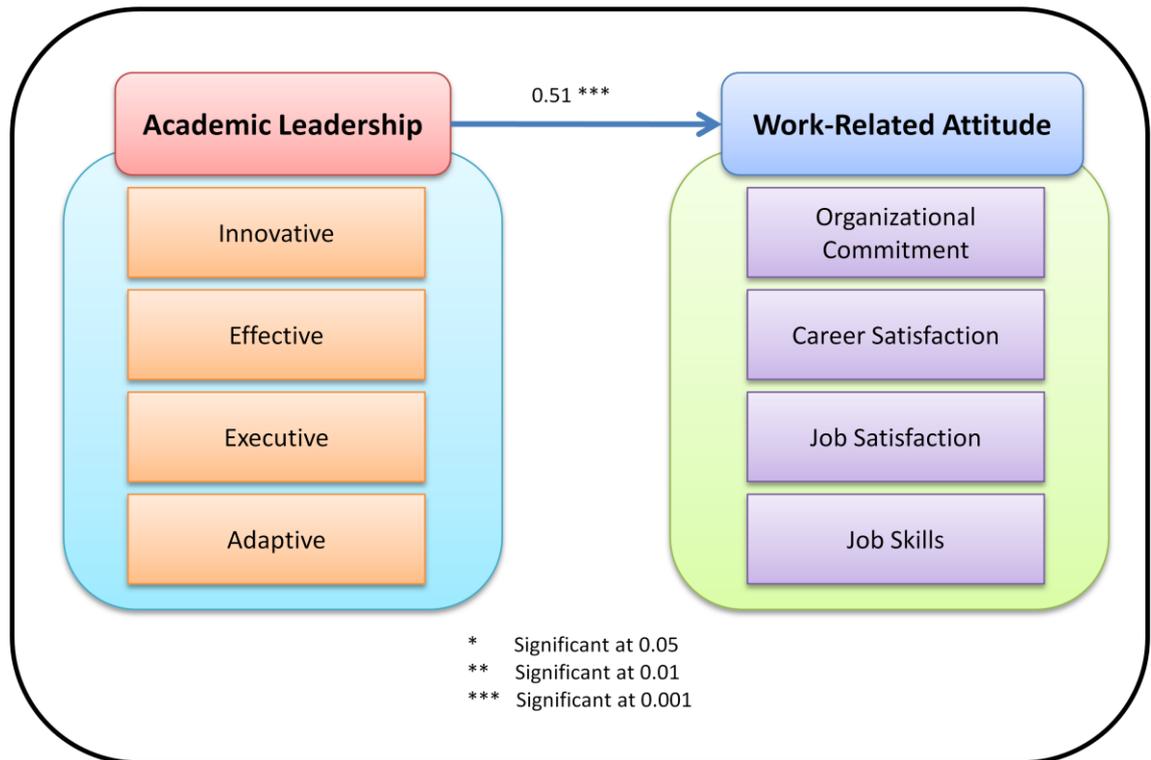
The result confirms the main hypothesis that academic leadership has a positive effect on work-related attitude; and to be accepted. Table 4.47 shows the summary of main hypothesis justification.

Table 4.61: Main Hypothesis Justification

Hypothesis	Justification
H_{Main} : Academic leadership behaviour traits have a positive effect on work-related attitude	Academic leadership was found to be significantly predictive. **Main hypothesis is accepted.**

4.25   Multiple Regression Analysis

Multiple regression analysis is conducted to examine the strength of the relationships among the independent and dependent variables after the factor analysis result. The enter method is used in multiple regression analysis. This method is called the simultaneous method where the researcher specifies the set of predictor variables in determining the model. Brace et al. (2009) state that the success of this model in predicting the criterion variable is then assessed.

All factors of independent and dependent variables are found to be statistically significant as correlation analysis was entered into the regression analysis. In this study, academic leadership explains approximately 11% to 36% of the variance in work-related attitude. Table 4.48 shows the result of multiple regression analysis of academic leadership and work-related attitude factors. Further, this study regards the loading to be significant ($p < 0.05$), highly significant ($p < 0.01$) and highly significant ($p < 0.001$). This study only regard any results as significant is $p < 0.05$. Moreover, this study only regard any results as significant is $p < 0.05$.

Table 4.62: The Regression Analysis of Academic Leadership and Work-Related Attitude

Academic Leadership	Work-Related Attitude							
	Organizational Commitment		Career Satisfaction		Job Satisfaction		Job Skills	
	Std Beta	Sig.	Std Beta	Sig.	Std Beta	Sig.	Std Beta	Sig.
Innovative	**0.216**	**0.007**	0.060	0.463	-0.076	0.369	**0.278**	**0.000**
Effective	0.115	0.125	-0.006	0.937	0.020	0.798	0.056	0.402
Executive	**0.192**	**0.023**	**0.338**	**0.000**	**0.276**	**0.002**	**0.317**	**0.000**
Adaptive	0.053	0.439	0.077	0.277	0.138	0.061	0.048	0.436
$R^2 =$	0.225		0.173		0.105		0.359	
Adjusted $R^2 =$	0.212		0.158		0.089		0.348	
Std Error =	0.591		0.724		0.653		0.377	
F Statistics =	16.441		11.99		6.717		32.174	
Sig F =	0.000		0.000		0.000		0.000	

4.25.1 Organizational Commitment

The innovative factor is found to be a significant predictor of organizational commitment ($p < 0.01$). Further, the executive factor is found to be a significant

predictor of organizational commitment ($p < 0.05$). Innovative and executive account for 23% of the variation in organizational commitment. The calculation F of 16.44 is significant at an alpha < 0.001 for innovative and executive. Further, the positive beta indicates that innovative and executive has a significant positive effect on organizational commitment at 0.22 and 0.19, respectively. This indicates that there is significant statistical evidence for the positive relation relationship between innovative and executive toward organizational commitment. The association of Hypothesis 1 between academic leadership and work-related attitude factors is shown in Figure 4.19.

Figure 4.19: Hypothesis 1
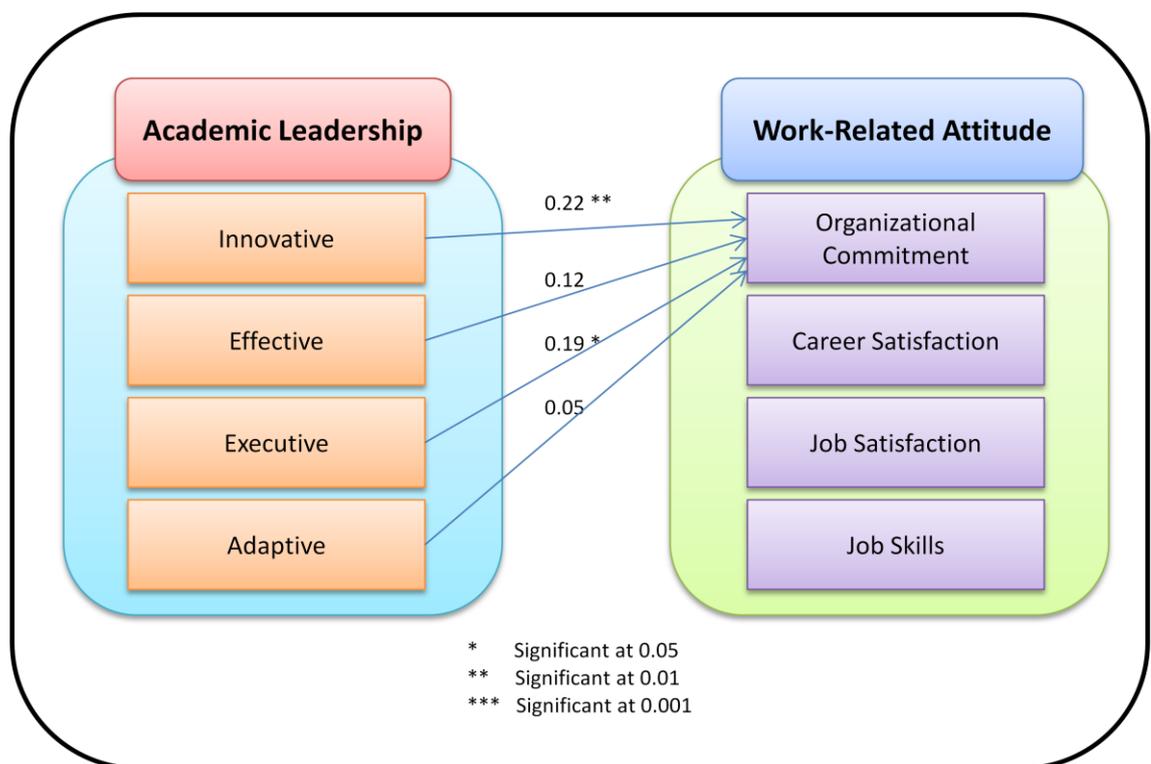
The result confirms the hypotheses of innovative and executive as having a positive effect on organizational commitment and is accepted. Thus, the hypothesis, H_1: Academic leadership has a positive effect on organizational commitment, and has to be partially accepted. Table 4.49 shows the summary of Hypothesis 1 justification.

Table 4.63: Academic Leadership and Organizational Commitment Justification

Hypothesis	Justification
H_1 : Academic leadership behaviour traits have a positive effect on organizational commitment.	Only innovative and executive were found to be
H_{1a} : Innovative academic leadership behavioural traits has a positive	significantly

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	effect on organizational commitment.	predictive.
H_{1b} :	Effective academic leadership behavioural traits has a positive effect on organizational commitment.	
H_{1c} :	**Executive academic leadership behavioural traits has a positive effect on organizational commitment**	**H_1 is partially supported.**
H_{1d} :	Adaptive academic leadership behavioural traits has a positive effect on organizational commitment.	

4.25.2 Career Satisfaction

The executive factor is found to be a significant predictor of career satisfaction ($p < 0.001$). Executive accounts for 17% of the variation in career satisfaction. The calculated F of 11.99 is significant at an alpha < 0.001. The positive beta of 0.34 indicates that executive had significant positive effect on career satisfaction. This indicates that there is significant statistical evidence for the positive relationship between executive and career satisfaction. The association of Hypothesis 2 between academic leadership and work-related attitude factors is shown in Figure 4.20.

Figure 4.20: Hypothesis 2
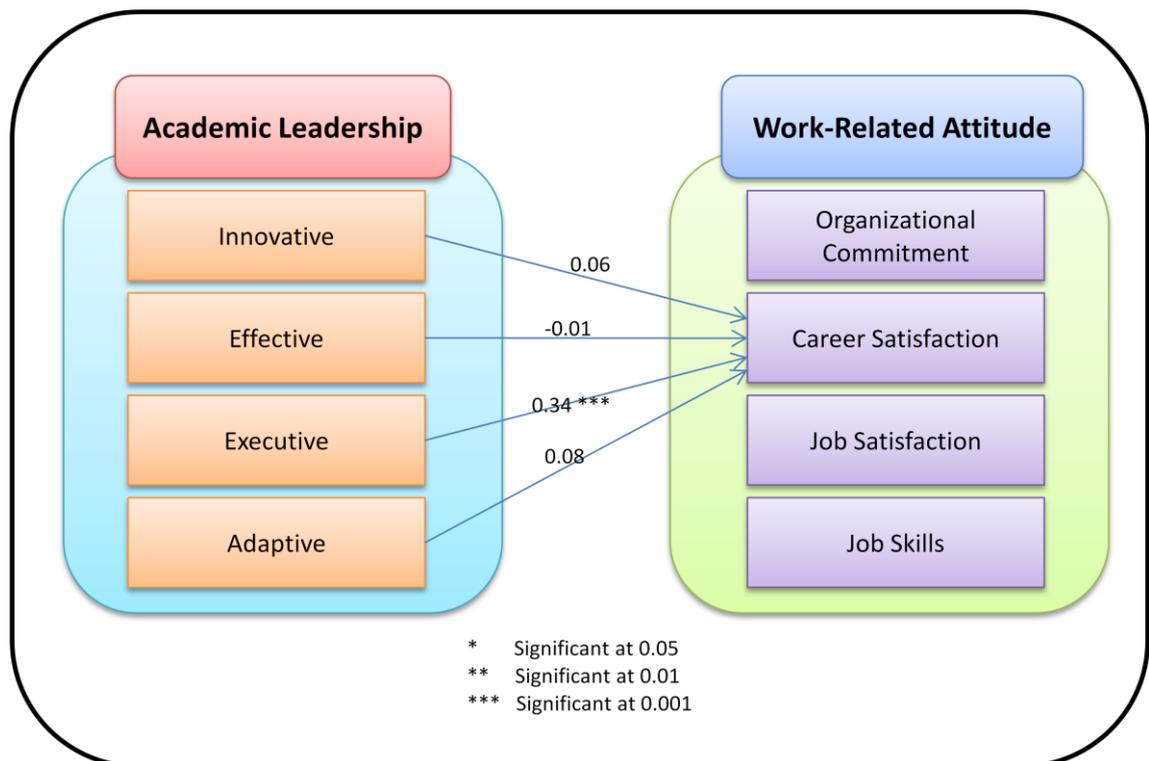
The result confirms that the hypothesis of executive has a positive effect on career satisfaction and is accepted. Thus, the hypothesis, H_2: Academic leadership has a positive effect on career satisfaction, and is partially accepted. Table 4.50 shows the summary of Hypothesis 2 justification.

Table 4.64: Academic Leadership and Career Satisfaction Justification

		Hypothesis	Justification
H_2	:	Academic leadership behavioural traits have a positive effect on career satisfaction.	Only executive was found to be significantly predictive.
H_{2a}	:	Innovative academic leadership behavioural traits has a positive effect on career satisfaction.	
H_{2b}	:	Effective academic leadership behavioural traits has a positive effect on career satisfaction.	**H_2 is partially supported.**
H_{2c}	**:**	**Executive academic leadership behavioural traits has a positive effect on career satisfaction.**	
H_{2d}	:	Adaptive academic leadership behavioural traits has a positive effect on career satisfaction.	

4.25.3 Job Satisfaction

The executive factor is found to be a significant predictor of job satisfaction ($p < 0.01$). Further, executive accounts for 11% of the variation in job satisfaction. The calculated F of 6.72 is significant at an alpha < 0.001. The positive beta indicates that executive has a significant positive effect on job satisfaction at 0.28. This indicates that there is a significant statistical evidence for the positive relationship between executive toward job satisfaction. The association of Hypothesis 3 between academic leadership and work-related attitude factors is shown in Figure 4.21.

Figure 4.21: Hypothesis 3
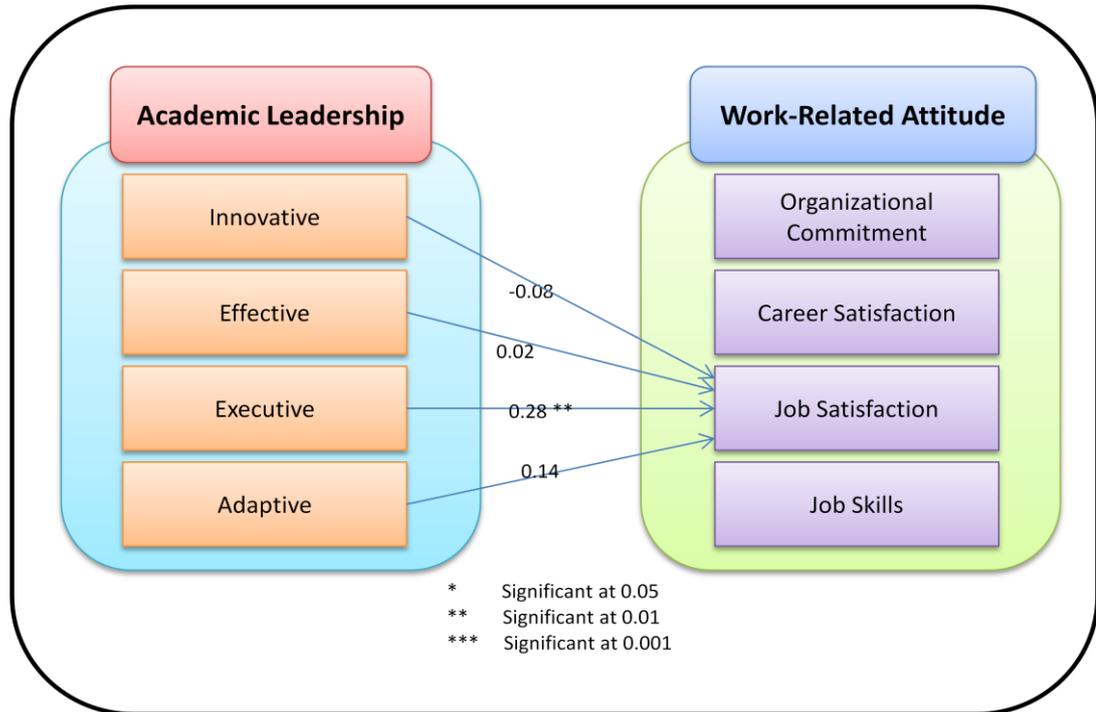
The result confirms the hypothesis of executive has a positive effect on job satisfaction and is accepted. Thus, hypothesis, H_3: Academic leadership has a positive effect on job satisfaction, and is partially accepted. Table 4.51 shows the summary of Hypothesis 3 justification.

Table 4.65: Academic Leadership and Job Satisfaction Justification

	Hypothesis	Justification
H_3 :	Academic leadership behavioural traits have a positive effect on job satisfaction.	Only executive was found to be significantly predictive.
H_{3a} :	Innovative academic leadership behavioural traits has a positive effect on job satisfaction.	
H_{3b} :	Effective academic leadership behavioural traits has a positive effect on job satisfaction.	**H_3 is partially supported.**
H_{3c} :	**Executive academic leadership behavioural traits has a positive effect on job satisfaction.**	
H_{3d} :	Adaptive academic leadership behavioural traits has a positive effect on job satisfaction.	

4.25.4 Job skills

Innovative and executive factors are found to be significant predictors of job skills ($p < 0.001$). As seen, both variables account for 36% of the variation in job skills. The calculated F of 32.17 is significant at an alpha < 0.001 for both variables. The positive beta indicates that innovative has a significant positive effect on job skills at 0.28 and

175

0.32, respectively. Both factors indicate a significant statistical evidence for the positive relation relationship between innovative and executive toward job skills. The association of Hypothesis 4 between academic leadership and work-related attitude factors is shown in Figure 4.22.

Figure 4.22: Hypothesis 4
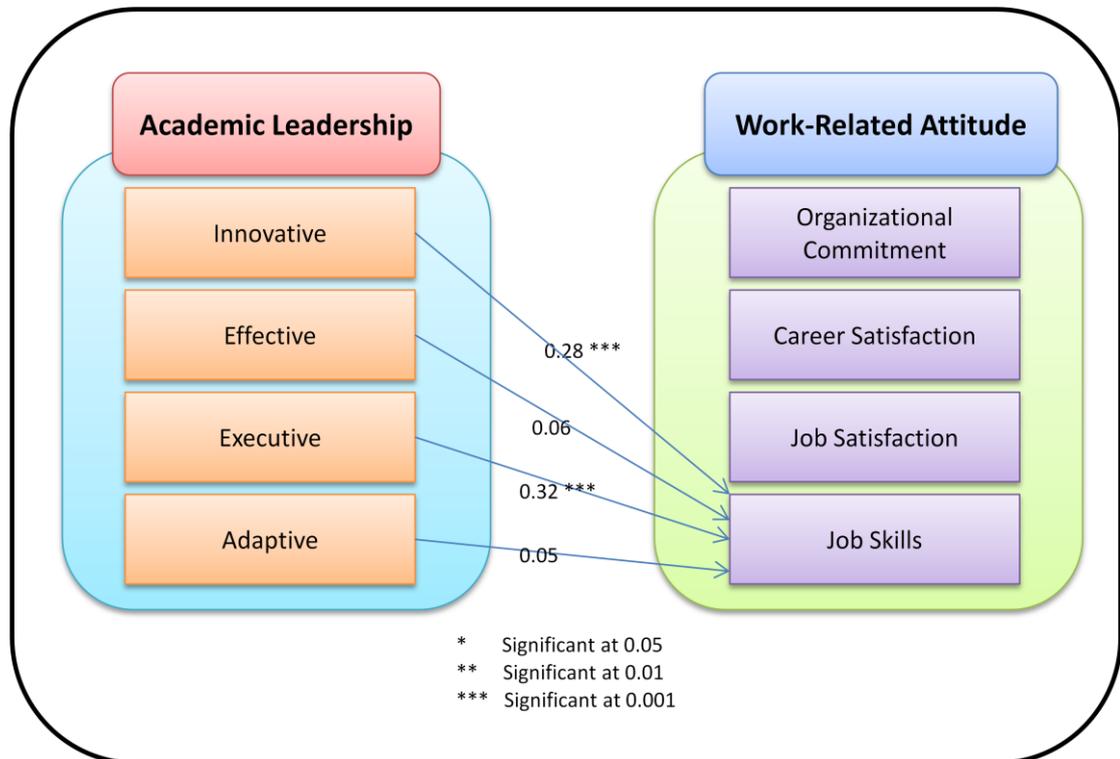
The result confirms the hypotheses of innovative and executive as having a positive effect on job skills and both are accepted. Thus, the hypothesis, H_4: Academic leadership, has a positive effect on job skills, and is partially accepted. Table 4.52 shows the summary of Hypothesis 4 justification.

Table 4.66: Academic Leadership and Job Skills Justification

	Hypothesis	Justification
H_4 :	Academic leadership behavioural traits have a positive effect on job skills.	Only innovative and executive were found to be significantly predictive.
H_{4a} :	**Innovative academic leadership behavioural traits has a positive effect on job skills.**	
H_{4b} :	Effective academic leadership behavioural traits has a positive effect on job skills.	**H_4 is partially supported.**
H_{4c} :	**Executive academic leadership behavioural traits has a positive effect on job skills.**	
H_{4d} :	Adaptive academic leadership behavioural traits has a positive effect on job skills.	

4.25.5 Summary

From the above hypotheses findings, the following association of academic leadership and work-related attitude factors are formed in Figure 4.23. In general, academic leadership has a positive effect on work-related attitude. Further, this study discovered innovative and executive are the major contributing factors in academic leadership toward work-related attitude.

In detail, the innovative factor has a positive effect on organizational commitment and job skills. The executive factor has a positive effect on organizational commitment, career satisfaction, job satisfaction and job skills. Unfortunately, the effective and adaptive factor have no impact on any of the work-related attitude factors, namely organizational commitment, career satisfaction, job satisfaction and job skills. Table 4.53 shows the overall results of the study's hypotheses.

Figure 4.23: Overall Association between Academic Leadership and Work-Related Attitude
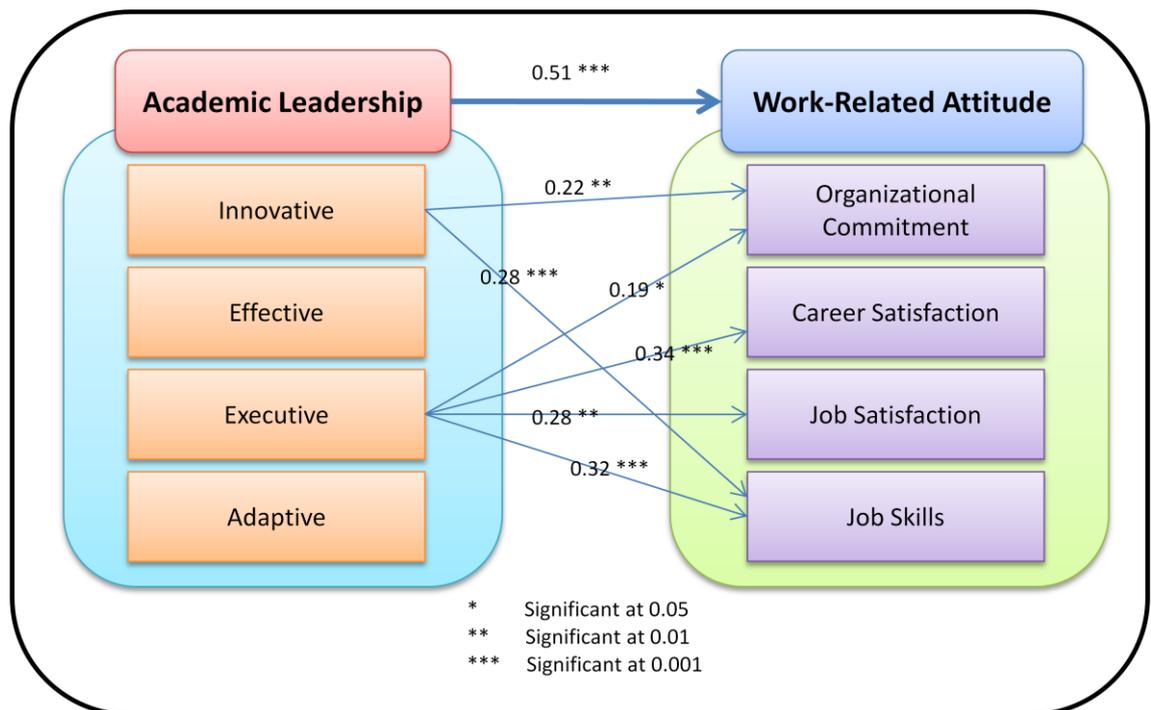
Table 4.67: Academic Leadership Hypotheses

		Hypothesis
H_{1a}	:	Innovative academic leadership behavioural traits has a positive effect on organizational commitment.
H_{1c}	:	Executive academic leadership behavioural traits has a positive effect on organizational commitment

H_{2c} : Executive academic leadership behavioural traits has a positive effect on career satisfaction.

H_{3c} : Executive academic leadership behavioural traits has a positive effect on job satisfaction.

H_{4a} : Innovative academic leadership behavioural traits has a positive effect on job skills.

H_{4c} : Executive academic leadership behavioural traits has a positive effect on job skills.

The above hypotheses could be summarized based on the p-value of faculty members according to their academic leadership in relation to work-related attitude as indicated in Table 4.54. The new categorization of academic leadership and work-related attitude was made based on the emerging themes according to the Factor Analysis results. The summary would give a better understanding that innovative has a significant relationship with organizational commitment ($p<0.01$) and job skills ($p<0.001$). Executive has a significant relationship with organizational commitment ($p<0.05$), career satisfaction ($p<0.001$), job satisfaction ($p<0.01$) and job skills ($p<0.001$). Unfortunately, effective and adaptive show insignificant relationship with all factors of work-related attitude, namely organizational commitment, career satisfaction, job satisfaction and job skills.

Table 4.68: The P-Value of Faculty Members

	OC	CS	JS	JSK
Innovative	**0.007	0.463	0.369	***0.000
Effective	0.125	0.937	0.798	0.402
Executive	*0.023	***0.000	**0.002	***0.000
Adaptive	0.439	0.277	0.061	0.436

* $p<0.05$; ** $p<0.01$; *** $p<0.001$

Note: OC - Organizational commitment
CS - Career satisfaction
JS - Job skills
JSK - Job skills

4.26   Multicollinearity

While conducting the regression analyses, the potential influence of collinearity was assessed (Stine, 1995). Table 4.55 shows the collinearity statistics between overall factors of independent variable. From the collinearity statistics, Pallant (2007, pp.155-156) elaborates:

"Two values are given: Tolerance and VIF (variance inflation factor). Tolerance is an indicator of how much of the variability of the specified independent is not explained by the other independent variables in the model and is calculated using the formula 1-R squared for each variable. If this value is very small (less than 0.10), it indicates that the multiple correlation with other variable is high, suggesting the possibility of multicollinearity. The other value given is the VIF, which is just the inverse of the Tolerance value (1 divided by Tolerance). VIF values above 10 would be a concern here, indicating multicollinearity."

Table 4.69: Collinearity Statistics for Overall Factors of Independent Variable

Variable	Collinearity Statistics	
	Tolerance	VIF
Innovative	0.54	1.83
Effective	0.62	1.62
Executive	0.48	2.07
Adaptive	0.73	1.37

Specifically, the VIF score is calculated which measures the extent to which method effects inflate the variance of a slope estimate (Fox, 1991; Hochwarter et al., 2007). Agarwal et al. (1999) state the variance inflation factors (VIFs), which provide information on the extent to which non-orthogonality among independent variables inflates standard errors, are calculated for each regression coefficient. A VIF score below five is typically considered acceptable (Chatterjee & Price, 1991; Montgomery et al., 2001; Byrne & Hochwarter, 2008; Ferris, Rogers, Blass & Hochwarter, 2009). Further, if the tolerance value for each independent variable is less than 0.10 and the VIF value is more than 10, then there is an issue regarding multicollinearity. Vice-versa, if the tolerance value is more than 0.10 and the VIF value is less than 10, then there is no issue regarding multicollinearity.

In this study, the tolerance value for academic leadership factors is between 0.48 and 0.73 which is more than 0.10. This is supported with the VIF value between 1.37 and 2.07 which is less than 10. Thus there is no issue on multicollinearity (Neter et al, 1985; Agarwal et al, 1999) and no likely threat to substantive conclusions drawn from the

parameter estimates (Agarwal et al., 1999) in this study. The multicollinearity is within the study tolerance levels and condition indices are within the recommended usage (Agarwal et al., 1999). This is also supported with the works of Chatterjee and Price(1991); Montgomery et al. (2001); Byrne and Hochwarter, 2008; Ferris et al. (2009).

4.27   Summary

This study discovered in the context of academic leadership in the public universities of Malaysia, the innovative, executive and adaptive factors are significant in accepting the hypotheses. Thus innovative, executive and adaptive of academic leadership factors have an impact on organizational commitment, career satisfaction, job satisfaction and job skills of work-related attitude factors. Unfortunately, effective does not give any impact on work-related attitude factors.

The outcomes from the above results are able to provide sufficient evidence to satisfactorily answer the research questions set out at the beginning of the study, the contributions to the theory and practice, taking into account the limitations of the study and how they can set the direction for future research.

CHAPTER 5: INTERVIEW FINDINGS

5.1 Introduction

Structured interviews were conducted in August and September 2010 in Malaysia. Several respondents were identified and contacted prior to the structured interview. This chapter will present the purpose of the structured interview, background of the public universities, background of the respondents, interview findings and the analysis.

5.2 Purpose of the Structured Interview

This study employed a structured interview as its method of getting data from respondents as indicated in the earlier chapter. The study identifies the interview method as appropriate in the qualitative paradigm. As for this study, the structured interview was being used to collect data. The respondents were faculty members who were holding an administrative position in public universities in Malaysia.

The purpose of this structured interview was to answer two research questions (RQ) as indicated in the earlier chapter:

1. RQ1: What is the definition of academic leadership?
2. RQ2: What are the components of academic leadership and faculty work-related attitude?

5.3 Background of Public Universities

In Malaysia, there are 20 public universities under the administration of the Ministry of Higher Education (MOHE). The MOHE classifies public universities under several categories known as the accelerated programme for excellence university (APEX), research university (RU), focus university (FU) and comprehensive university (CU). This signifies the academic leadership establishment of those universities.

5.4 University One

University One (U1) is signified with the motto "We Lead." U1 was established in the 60s. U1 is categorised as the APEX University by the MOHE. U1 started with a concentration on pure sciences then moved into medical sciences, engineering, pure art and applied arts. U1 has three campuses known as the main campus, medical campus and engineering campus. The main campus is dedicated to pure sciences, applied

sciences, pure arts and art sciences. The second campus is dedicated to medical sciences and owns a hospital. Finally the third campus is dedicated to engineering.

The selection of U1 was due to its long establishment for more than 50 years. Further, U1 has been nominated the only APEX university in the country by the MOHE. Moreover, U1 academics are known for their level of leadership as several individuals have been seconded or on loan to several ministries, government bodies and regulators, private organizations, other public universities and colleges. In the perspective of faculty members' academic leadership, U1 is known as a top public university in Malaysia based on the university's recognition and performance.

5.5   Background of Respondents

In this study, there were 15 respondents from U1. All respondents were interviewed through face-to-face interview. The interview time for each respondent was between 30 to 45 minutes. There were 11 male respondents (73.3) and 4 female respondents (26.7%). For respondents' years of age, one respondent was 31-35 years old (6.7%), seven respondents were aged 36-40 (46.7%), two respondents were between 41-45 years old (13.3%), four respondents were aged 51-55 years (26.7%) and one respondent was aged 55 or older (6.7%). The majority of the respondents were married (N = 14, 87.5%).

According to academic rank, four respondents were indicated as senior lecturers (26.7%), seven people were associate professors (46.7%) and four people were professors (26.6%). Based on academic qualification, two respondents were master holders (13.3%), one respondent was a DBA holder (6.7%) and 13 respondents were PhD holders (86.7%). In academic discipline, six respondents were pure sciences (40%), two respondents were applied sciences (13%), one respondent was pure arts (6.7%) and six respondents were applied arts (40%).

All respondents had taken an administrative position during their tenure at the university. The majority of respondents were deans (N = 6, 40%). The remaining respondents were chairpersons (N = 3, 20%), deputy deans (N = 5, 33.3%) and deputy vice chancellor (N = 1, 6.7%). When asked about their leadership training, six respondents (40%) claimed they did not attend any leadership training. In contrast, six respondents (40%) attended 1-3 leadership courses. Meanwhile, one respondent

attended 4-6 times (6.7%), 7-9 times (6.7%) and more than 10 times (6.7%) of leadership training, respectively.

In terms of working experience at the present organization, three respondents (20%) indicated they had worked below 10 years. Meanwhile, six respondents claimed they had worked between 11-20 years (40%) and 21-30 years (40%), respectively.

Several respondents had worked with other public organizations and private organizations. Two respondents (13.3%) indicated that they had worked with other public organizations. Meanwhile, five respondents (33.3%) claimed that they had worked in the private organizations for less than five years. Finally, one respondent (6.7%) had worked for 11-20 years in the private organizations. Table 5.1 shows the summary of the above respondents' background.

Table 5.1: Respondents' Background

Item	Detail	N	%
Ethnic	Malay	15	100.0
Gender	Male	11	73.3
	Female	4	26.7
Age (year-old)	< 30	0	0.0
	31-35	1	6.7
	36-40	7	46.7
	41-45	2	13.3
	46-50	0	0.0
	51-55	4	26.7
	> 55	1	6.7
Marital Status	Single	1	6.7
	Married	14	93.3
Academic Rank	Senior Lecturer	4	26.7
	Associate Professor	7	46.7
	Professor	4	26.7
Qualification	Master	2	13.3
	DBA	1	6.7
	PhD	12	80.0
Academic Discipline	Pure Sciences	6	40.0
	Applied Sciences	2	13.3
	Pure Arts	1	6.7
	Applied Arts	6	40.0
Leadership Training	None	6	40.0
Attended (times)	1-3	6	40.0
	4-6	1	6.7

	7-9	1	6.7
	> 10	1	6.7
Administrative Position	Chairperson	3	20.0
	Deputy Dean	3	20.0
	Dean	7	46.7
	Deputy Vice Chancellor	1	6.7
	Vice Chancellor	1	6.7
Present Working Experience (years)	< 10	3	20.0
	11-20	6	40.0
	21-30	6	40.0
Other Working Experience (years)	Public Organizations: < 10	2	13.3
	Private Organizations: < 10	5	33.3
	11-20	1	6.7

5.6   Academic Leadership Perspective

In the interview, respondents were asked for their perspective on academic leadership. The question started by asking "how do you perceive academic leadership in the context of your university?" It was followed by a probing question, "how do you describe your own academic leadership in the similar context?" Interestingly, respondents gave various perspectives on academic leadership.

In the context of academic leadership in the public universities of Malaysia, leaders needed to consider their subordinates. Most of the subordinates were their colleagues and experts in their field. Moreover, these people were doctorate holders even the associate professors and professors. Further, some individuals were conferred with honorary titles from the Rulers of State in Malaysia. Thus, academic leadership in Malaysia is complex and many things need to be considered in carrying out the duty as an administrator. Respondent no. 3 stated:

> *"Here our tenure is three years then after that we will be a common lecturer. So leadership here is like coaching a friend. Friendly, we cannot force them. It is difficult here."*

Further respondent no.8 supported the above claim by respondent no.3:

> *"Managing the school is not so difficult. It is a routine and within the control of the Chief of Staff. It is the basic university functions. But*

managing the people in academic is a different story. Even it is difficult for you to do something. And it is difficult to get respect from people. If you are a professor, may be... especially if you are an associate professor... and all are fellows associate professors, so what is there..."

Up to a stage, respondent no.9 revealed:

"I do not consider myself as a leader during my tenure as the dean. ...not perform that well because deanship is not permanent or elected. [I am] appointed by the Vice Chancellor."

Further respondent no.9 uttered:

"I am not firm; I try to make friends. Not much stressed on leadership. I made an adaptation to colleagues during my deanship... make friends. Difficult to manage colleagues; most of them are at par with you. All have doctorates. These people don't want to be directed, but I try to consult them on administrative."

For respondent no.14, academic leadership was like managing a group of people in a "village":

"In public universities, I look at is as myself as 'penghulu kampung' (village headman). First you are friends with your colleagues, but at the same time you have to enhance the culture of good quality education... everyone is important."

On the other hand, most respondents were looking at academic leadership as positive and moving ahead. In line with respondent no.15, he stated:

"We try to bring the entire organization toward fulfilling its ambition... its mission and vision."

Respondent no.1 wanted to move from the present stage to a higher level:

"...trying to bring an institution or a group of people to a higher level, above which it was at before. I think this what we want from leadership. Not just to maintain but motivate the institution and bring direction to the institution to a higher level that is what I think is important in leadership."

Further some respondents claimed academic leadership was more toward a participative leadership in the public universities. Quoting respondent no.5:

"In my view, leadership is more toward participative management."

Respondent no.10 saw academic leadership as:

"Generally, leadership is administering the policy set by the higher management... with special allowances to the department in creating its own creative based policy."

On a stronger note, respondent no.8 stated academic leadership as:

"A person who can make other people succeed. You should facilitate... as a leader you should be knowledgeable, good contacts, good networking. As admiral of the ship, he must know the direction, condition, decide what action to take."

For respondent no.13, academic leadership was seen as:

"Leadership is really leading... leading, setting the direction, setting the vision, setting the way forward."

Respondent no.17 perceived academic leadership as:

"This depends on how we define what we mean leadership in academia... first, you lead. Then you empower them, later you let others lead."

5.6.1 Summary

Nine respondents indicated that people were the main item identified in relation to academic leadership. Their view of people included followers and groups of people. They explained that people are important in academic leadership as the leader leads those people. Second, seven respondents indicated direction as another key word in academic leadership. They claimed academic leadership needs to direct people whom are under his/her authority. The third most mentioned key word was lead. Five respondents indicate lead was important for a leader in academic leadership. In summary of the key words mentioned by respondents, they view an academic leader as the person who leads people in a direction.

Additionally, respondents indicated several other key words that trigger in their mind on academic leadership. The key words were action, clear path, consultative decision, empowerment, expectations, focus, higher level, institution, listener, mentor, vision and mission, motivation, objective, openness, perform, planner, quality, skills, visionary, share, teach and challenges. In summary, their perceptions are depicted in Table 5.2.

Table 5.2: Selected Key Words of Academic Leadership

Key Word	Total Times Mentioned
People (inclusive of followers and group of people)	7
Direction	7
Lead	5
Visionary	2
Clear Path	2
Decision	2
Teach	1

Further, there were mixed feelings among interview respondents on their perspective of academic leadership. These mixed feelings were classified as positive and negative feelings on academic leadership. On the positive notes, respondents were making good remarks and inputs toward academic leadership such as:

- *...everyone is important.* (Respondent no.14)
- *A person who can make other people succeed.* (Respondent no.18)
- *Leadership is really leading.* (Respondent no.13)
- *First, you lead. Then you empower them, later you let others lead.* (Respondent no.17)

Conversely, the negative notes on academic leadership were seen as respondents indicated:

- *It is difficult here*. (Respondent no.3)
- *I am not firm; I try to make friends. Not much stressed on leadership.* (Respondent no.9).

5.7   Academic Leadership Characteristics

Respondents were asked regarding their thoughts on academic leadership characteristics. This was to identify the characteristics that they could perceive as important and required in academic leadership. Directly and indirectly during the interview, respondents were probed on their own characteristics of academic leadership.

During the interview, respondents indicated various academic leadership characteristics that are needed. The list of characteristics can be grouped into three known as attitudes, attributes and skills. Respondents' inputs were coded and grouped based on thematic analysis.

5.7.1   Attitudes

During the interviews, three respondents listed academic leadership characteristics that can be grouped into attitudes such as selflessness. Teamwork and participation, commitment, risk taker (including courage and bravery), give and take (magnanimous), mover, open minded, liked by others (can be worked with), achiever and set an example (role model) were indicated as academic leadership characteristics by two respondents each. Further, each respondent indicated attitudes such as being accountable, adaptable to change, collective decision making, compromise, control, cooperation, demand, practicing trial and error, being friendly, giving acknowledgement, honesty, liking the job, being politically clean, persistence, responsible, self conviction, taking challenge, tolerant, trusting other people, trusted by others and understanding. Table 5.3 summarizes the academic leadership characteristic listed by respondents on attitude.

Respondent no.6 and 10 indicated that academic leadership needs a selfless person; a person who is concerned more with the needs and wishes of others than with one's own. Respondent no.6 indicated clearly that the person must be older and wiser in academic leadership. Usually the older and wiser person had fulfilled their needs and wants and,

as such, the person can give to others and not be selfish. Respondent no.6 said the person:

> *"...cannot be selfish, that is why I feel that if you put junior people as dean... maybe in some schools, we are young, we cannot be helped... people have nothing to lose that is why they can give."*

Respondent no.10 stated there were few characteristics needed for academic leadership; the person must be "s*elfless not selfish. If personal agenda is put ahead, then it's finished.*"

The second characteristic was allowing participation and teamwork. These were stated by respondents no.14 and 17. Respondent no.14 stated that "*they have to be involved... although they have strengths in one particular area but... to say they are relevant to his profession*". Moreover, respondent no.17 said "*...you have to direct at the same time you have to allow them to participate in that direction as well...*" Thus both respondents claimed participation and teamwork are important in academic leadership.

Commitment was claimed to be the characteristic by respondents no.9 and 15. Respondent no.15 claimed that "*I am prepared to give my commitment*". Meanwhile respondent no.9 gave a list that includes commitment as important characteristics for academic leadership.

Having courage, being brave and a risk taker were the characteristics stated by respondents no.5 and 9. Respondent no.5 stated that "*...you need to be brave enough, a risk taker*". Respondent no.9 stated "*the characteristics needed to lead is courage, you need it to lead your colleagues, those on a par with you*".

The characteristic of being magnanimous or give and take was considered by respondent no.2. In academic leadership, respondent no.2 stated "*you need a person who can tolerate, give and take...*" Open minded was the characteristic claimed by respondent no.7. In academic leadership, respondent no.7 stated "being *open minded is very important*".

Two of respondents claimed moving fast and a mover is the characteristic for academic leadership. Respondent no.6 stated *"sometimes I feel people are not moving as fast as me. Maybe that is one of the characteristics that I need to understand that people have limitations and don't have the capacity to work the way I want to work"*. For respondent no. 16, the person claimed *"in general as you move, people will follow you. But I think it won't work here... here as you just move ahead by yourself, people will start thinking that you are aloof and out of context"*.

Respondents no.1 and 2 claimed being liked by others and the ability to work with others as the characteristics of academic leadership. Respondent no.1 stated *"...they are liking a certain person and the person is capable of doing the job and in turn is becoming our leader"*. Meanwhile for respondent no.2, the person claimed *"...you must select somebody who can do the work and who can work with you"*.

Respondents no.2 and 13 stated the characteristics being a performer and achiever. *"You need someone who can perform"* claimed by respondent no.2. Further, *"someone who can do the work"*. For respondent no.13, *"the leader must be an achiever"* to the other lecturers and subordinates.

To set example or to be a role model were the characteristics claimed by respondents no.3 and 13. Respondent no. 3 stated *"I need to set an example as to prove myself to fellow lecturers that I can deliver and to follow my leadership next time"*. For respondent no.13, the person claimed *"the leader will be a role model to the staff"*.

For accountability, responsibility and trusted by others, respondent no.15 stated *"personally, I try to be accountable with the responsibilities that are entrusted to me"*.

Control and friendliness were suggested by respondent no.16 where *"...you should have the ability to control...and manage...and you need to have that authority"*. Further the need to get together with colleagues and subordinates were important to respondent no.16 as *"they expect the dean to be one of them... who would go to their rooms... chatting with them; not just staying in your room... isolated, no! You have to come down, if you don't have that characteristic of other colleagues and they see you as a superior, then the things won't work"*. The respondent also stressed on communication, *"*[it] *is crucial. You have to be able to communicate... that is why when I choose my*

team... I have to choose someone who can communicate with the rest also. I cannot have someone". Further, the selection was based on the ability "*to communicate with everyone in the school. If you cannot do that, I cannot choose you*".

Respondent no.2 stressed two criteria as "*those two criteria must be look at... sometime you must do trial and error... because you don't know your friend, that is why they are given tenure for two years*". During trial and error, respondent no.2 looked at performance as "*we look at their performance, if not we change... because we need to delegate works... you need a person who can tolerate, give and take*".

Being a good listener and persistence were suggested by respondent no.5 as "*you need to be a good listener... then you need persistence... because sometime you need to make a quick decision... so you need persistence*".

Table 5.3: Attitudes of Academic Leadership

		Frequency
1	Accountable	1
2	adapt to change	1
3	allow participation/teamwork	2
4	Committed	2
5	Compromise	1
6	Control	1
7	Cooperation	1
8	courage/brave/risk taker	2
9	Demand	1
10	do trial and error	1
11	Friendly	1
12	give and take	1
13	like the job	1
14	move fast/mover	2
15	need to prove	1
16	no politics/clean man	1
17	open minded	1
18	others like/can work with	2
19	perform/achiever	2
20	Persistence	1
21	Responsible	1
22	Selfless	3
23	set an example/role model	2

24	take challenge	1
25	Tolerate	1
26	trusted by others	1

5.7.2 Attributes

The second group for characteristics of academic leadership was attributes. Attribute is defined as "regard something as being caused by someone." Thus, in this study, attributes of an individual are regarded as where an individual caused something to occur. Table 5.4 shows the list of attributes being elaborated by respondents such as accept ideas, accomplish, discipline, empowerment, intelligent, passion, patient, planner, quality and visionary.

During the interview, visionary was highlighted by respondents no.16 and 17. Further, visionary was mentioned the most in the interview. Respondent no.16 said "*again this person has to be a visionary... in the sense that you are able to see the future...*" The person stressed "*...of course you have to be in line with the university's vision*". Respondent no.17 said "*...generally, people would expect a leader to lead... they see as providing directions, providing visions*". Respondent no.2 claimed "*we go toward the university's vision.*" For respondent no.3, the person claimed "*yes, I am having the vision; the vision is the same school's vision and the university's vision... is to fulfil the KPI.*" Finally, respondent no.6 said "*...I think there is a vision, then how you implement the vision... that is where the leadership* [comes] *at the school level.*"

Respondent no.15 raised accomplishment and patience as the characteristics of academic leadership. The person said "*I'll try my best in accomplishing our vision and mission*". Further the person said the path of academic leadership "*is challenging and demanding... I think my patience is still there*".

Respondents no.5 and 21 said intelligence was required for academic leadership. Further, being a planner was claimed by respondent no.6 who said the person needs to have "*the ability to think, plan and strategize... [those were] very necessary*".

During the interview, respondent no.17 said empowerment is a characteristic of academic leadership, "*...empowerment, I think that is important*" because in academics "*we deal with people of the same level, same rank*".

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A person in academic leadership needed discipline said respondent no.9. The person "*must set a high discipline among colleagues to adhere to deadlines*". The discipline was needed in ensuring required tasks are done and submitted on time.

Other characteristics of academic leadership highlighted by respondents no.1 and 10 included motivation, passion and quality . For motivation, respondent no.17 said "*my own self conviction keeps the motivation*". Respondent no.10 said in academic leadership, passion was needed, "*...not just love but passion*" in work. Respondent no.1 claimed quality is needed in academic leadership. This was based on the person's observation of the present administration of their department. The list of attributes in academic leadership is depicted in Table 5.4 below.

Table 5.4: Attributes of Academic Leadership

		Frequency
1	accept ideas	1
2	Accomplish	1
3	Discipline	1
5	Empowerment	1
6	Intelligent	2
7	Passion	1
8	Patient	2
9	Planner	2
10	Quality	1
11	Visionary	3

5.7.3 Skills

Skills were also discovered during the interviews with respondents. According to the Oxford Dictionary online, skill is defined as "the ability to do something well; expertise; a particular ability." During the interview sessions, respondents indicated several skills that are needed for academic leadership such as being able to lead, authority, can do work, capable/can deliver, communication, good researcher, knowledge of the work system, knowledge transfer, knowledge, being a listener, managerial skills, participative, people skills, read a lot, readiness, smart, teacher and well rounded. Table 5.5 shows the list of skills listed by respondents.

The skill that was mentioned the most was being capable/able to deliver by respondents no.1, 2 and 3. Respondent no.1 said "*...people who have filled the post are people who*

are capable of doing the post, the job and becoming our leaders". In support, respondent no.2 said "*...who can do the work..., who perform*". Finally, respondent no.3 reflected on own self that "*I need to prove* [that] *I can deliver things that are needed from me*".

Managerial skills were seen as important by respondents no.8 and 16. As claimed by respondent no.8, "*not many lecturers have managerial skills... they should be trained as managers*". Respondent no.16 added "*...in the situation that you have to managed* [the] *operations*".

Apart from managerial skills, human skills were considered important for respondents no.8, 10 and 18. According to respondent no.8 observation in years, the person said academic leadership required "*people skills, because they are not trained.* [They are] *not trained to handle people... not trained to handle different types of workers that we have*". Respondent no.10 said, "*perhaps the most important... soft skills, person to person skills*". Respondent no. 18, also claimed people skills were needed as listed among the characteristics for academic leadership.

Being a good researcher was also considered a characteristic of academic leadership. This was claimed by respondents no.4 and 13. Respondent no.4 said "*you should have the capability of not only an administrator but you should be able to be a good researcher*". Respondent no.13, said "*because the leader will be a role model to the staff. So the leader must minimally be a researcher as well as good teacher and can less or more lead*". Further, respondent no.13 added, "*I will make sure that somebody who has the characteristics... or capabilities of a successful academician, well rounded and balanced*".

For respondent no.16, authority and communication were important for academic leadership. The person said "*you have to be dealing with giving directions to people... and you need to be able to have that authority. You can ask someone to do and that person will have to do*". Then the respondent claimed that communication is crucial. "*You have to be able to communicate*" as the criteria for respondent no.16 in choosing the team. Further, the person stressed, "*when I choose my team, I have to choose someone who can communicate with the rest also*". Further, "*if you cannot do that, I cannot choose you*" claimed respondent no.16 during the interview.

Knowledge had been chosen by respondent no.18. And knowledge as a characteristic was also claimed by respondent no.21. On the other hand, respondent no.6 highlighted knowledge of the work system, smart and read a lot as characteristics for academic leadership. "[The person] *must be able to know how to work through the system to get things done*" said respondent no.6. Further, the person must be "*smart, read a lot*".

Other skills of academic leadership were the ability to do the work, know the work system, knowledge transfer, participative and readiness chosen by respondents no.2, 6, 9, 18 and 17, respectively. For respondent no.2 a person "*who can do the work and who performs*" were given the responsibilities. Respondent no.6 believed someone who knows the work system to get things done. Respondent no.17 explained "*you have to direct at the same time you have to allow them to participate in that direction as well*". Finally, respondent no.9 stated "*readiness is important. You need to have your mind set ready to lead*".

Table 5.5: Skills of Academic Leadership

		Frequency
1	able to lead	2
2	Authority	1
3	can do work	1
4	capable/can deliver	3
5	Communication	1
6	good researcher	2
7	know work system	1
8	knowledge transfer	1
9	Knowledge	2
10	Listener	1
11	managerial skills	2
12	Participative	1
13	people skills	3
14	read a lot	1
15	Readiness	1
16	Smart	1
17	Teacher	1
18	well rounded	1

5.8   Work-Related Attitude Components

Respondents were asked about their work-related attitude, specifically, job satisfaction, career satisfaction and organizational commitment. Most respondents indicated high

satisfaction with their work-related attitude. A few respondents indicated low satisfaction with their work-related attitude.

5.8.1 Job Satisfaction

In general, respondents were asked about their feelings of job satisfaction. They were asked to elaborate on the perspective of their job satisfaction. They were also asked to rate their level of job satisfaction by indicating 1 (very unsatisfied) to 5 (very satisfied).

5.8.1.1 High on Job Satisfaction

The majority of respondents indicated their high satisfaction on job satisfaction. They said:

- *I am very satisfied* (Respondent no.2)
- *I can rank 8 to 10* (Respondent no.4)
- *I am very happy with* [this university]... [it] *has acknowledge my hard work* (Respondent no.6)
- *...it should be OK,... in scale, I put 4* (Respondent no.8)
- *I am happy with it* (Respondent no.13)
- *...in the range of 10... I would say 7 to 8. I am satisfied with what I am doing* (Respondent no.15)
- *It's a kind of mixed. More on the satisfied side* (Respondent no.16)
- *I have been here for 24 years. I have been satisfied. I have been treated well... on job satisfaction* (Respondent no.17)

5.8.1.2 Low on Job Satisfaction

Further, several respondents claimed they were not happy or low in their job satisfaction with the present organization. They expressed:

- *I personally don't like this job... I would not stay in the job* (Respondent no.1)
- *My job satisfaction may be 3... moderate* (Respondent no.5)
- *In terms of flexibility and time... I put in the middle* (Respondent no.7).

5.8.1.3 Conditional on job satisfaction:

Respondents no.3 and 14 gave a conditional on their job satisfaction level during the interview. They said:

- *...to discuss about job satisfaction... I am satisfied when I can deliver* (Respondent no.3)
- *I am satisfied when I can deliver* (Respondent no.14)

5.8.2 Career Satisfaction

In general, respondents were asked about their feelings of career satisfaction. They were asked to elaborate on the perspective of their career satisfaction. They were also asked to rate their level of career satisfaction by indicating 1 (very unsatisfied) to 5 (very satisfied).

5.8.2.1 High in Career Satisfaction

The majority of respondents indicated high satisfaction of career satisfaction. They said:

- *...I am satisfied.* (Respondent no.2)
- *Yes...yes...very fulfilling...very satisfying. So very satisfying.* (Respondent no.3)
- *...I feel happy.* (Respondent no.4)
- *I am satisfied.* (Respondent no.14)

When respondents were asked about their level of career satisfaction, they said:

- *...I would say about 4.* (Respondent no.6)
- *If rating...again 4.* (Respondent no.8)
- *Career satisfaction for administration is 5.* (Respondent no.9)
- *I am very satisfied too. On the scale at least 4.* (Respondent no.10)
- *...again 7 to 8 on the rating, I am quite satisfied.* (Respondent no.15)
- *...5 on career satisfaction.* (Respondent no.17)

5.8.2.2 Low in Career Satisfaction

Several respondents claimed that they were not satisfied with their career:

- *I think I would prefer to stay as an ordinary academic rather than a leader...it is more relaxed. I would rather be in my own position as an academic where life is more relaxed.* (Respondent no.1)

- *Actually, I want to go back to research.* (Respondent no.13)

- *I don't consider myself as highly successful in my academic career.* (Respondent no.16)

Further, some respondents marked their career satisfaction by saying:

- *If from 1 to 5... I still placed it on 3; when recognition is very bad, very poor and then the promotion is very poor...absolutely, you feel your career satisfaction between 1 and 3. ...career development wise, I am not satisfied.* (Respondent no.5)

- *I think...2.* (Respondent no.7)

5.8.3 Organizational Commitment

In general, respondents were asked their own view of their organizational commitment. They were asked to elaborate on the perspective of their own organizational commitment. They were also asked to rate their level of satisfaction of organizational commitment by indicating 1 (very unsatisfied) to 5 (very satisfied).

5.8.3.1 High in Organizational Commitment

When asked about the respondent's organizational commitment with the present organization, they indicated their organizational commitment as:

- *Yes, it is absolute!* ... [and] *you must be happy* [in doing the job]. (Respondent no.2)

- *My commitment is more toward this school. I feel proud being part of this university. I feel unhappy if I listen to people outside talking bad things about my organization.* (Respondent no.4)

- *Organizational commitment... I placed myself at the scale of 5.* (Respondent no.5)

- [Organizational commitment] *to USM? Absolute! Because they have been kind to me... I have no reason not to.* (Respondent no.6)

- *I am still very much committed. I am still committing even though I am not holding any admin position, I still give support to the school in terms of leading, do projects... activities for the school to achieve the KPIs and so on.* (Respondent no.7)

- *Probably at 4, even 5.* [Further,] *I have been given various opportunities from other institutions... better offers. But I told them that I am very, very, very happy with my organization right now. I feel that I still can contribute and I would like to remain that way.* (Respondent no.10)

- *I am very committed. I have to do my best for the organization. And it is always the good name and reputation of the university must be maintained... and especially important when you go out to meetings outside USM... you are bringing your organization with you.* (Respondent no 13)

- *Very high. Very high commitment, very close to 5 on the scale.* (Respondent no.16)

- *Rating... 5 on organizational commitment.* (Respondent no.17)

5.8.3.2 Low in Organizational Commitment

Respondent no.14 elaborated their view on organizational commitment. The person's perspective on organizational commitment is considered low, as the person considered everyone had the right to voice their opinion and communicate.

- *Organizational commitment is based on trust... and a good relationship. We have to treat people with respect, with dignity... and I don't believe in hierarchy. I want it to be at the base level... where everyone can communicate and give opinion but it has to be right.* (Respondent no.14)

5.8.3.3 Conditional in Organizational Commitment

Several respondents gave a conditional perspective on organizational commitment. Some gave their perspective based on their reciprocal response based on the organization's treatment of them.

- *I have to make things work, and I have to deliver on behalf of the school. Because of that I have to become more committed to the school.* (Respondent no.1)

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- *...when I am satisfied, I am committed to this organization... as I am more satisfied with my job, so I am committed to this organization.* (Respondent no.3)
- *In the scale... will be 3.5... because* [of] *people's problems,... things like different rules for different people... rules changing all the time.* (Respondent no.8)
- *Organizational commitment is 3 on administration.* (Respondent no.9)
- *Of course we have to commit to our organization that is our responsibility, our accountability. Commit does not mean loyal... commit means; if I happen to go to some other places... I still have to give my commitment to that new organization. Commit does not mean I want to stay here* [with this organization]. *If other organizations, for example... offer me another post, it is myself conscious and my obligation to fulfil that commitment. So, I think my commitment is always high to any organizations that trust me.* (Respondent no.15)

5.9   Academic Leadership Performance

Respondents were asked how they measure their leadership performance. Below are their responses themed on institution-based, group-based and individual-based leadership performance.

5.9.1   Institution-based Academic Leadership Performance

Several respondents claimed their performance of academic leadership can be grouped on institution-based. They stated their motives were mooted by the institution. Further, they said the benefits went to the institution rather than the individual.

- *Surely very successful...commercialize our modules.* (Respondent no.8)
- *I can be proud of the establishment of the video conferencing system. I am proud of the achievement.* (Respondent no.9)
- *It's not that we don't want to improve; we have tried but no authority to do so... no green light* [from the top management]. (Respondent no.10)
- *But I also evaluate this based on our KPI performance. That is one tangible measurement that I can use to measure my leadership as well. How well the school has performed... we started with a minimal pass mark... and it keeps improving; that indicates we are on the right track.* (Respondent no.13).

- *We have set quite a number of objectives that we want to achieve... so far we try to achieve two or three objectives within these three years.* [We are] *in the process of revamping our curriculum... I think we are almost there, about 90%. Next* [becoming] *one of the top graduate schools in Malaysia. Our ultimate aim is to have our programme accredited by* [various professional associations]. (Respondent no.15)

5.9.2   Group-based Academic Leadership Performance

Several respondents claimed their performance of academic leadership can be considered as group-based. They stated their motives were motivated by the group. Further, they said the benefits went to the group rather than the individual.

- *You must select somebody... who can do the work, who performs. Who can work with you...* (Respondent no.2)
- *I want them to be clear that they need to focus on research, publishing and teaching.* (Respondent no.4)
- *Easier at the section level... same wave length, same needs... make sure things are better for the section. But, when it comes to top management... normally things get stuck there.* (Respondent no.7)
- *If based on quantities, I would say I give our team between B and B+... we transformed from a Centre, turned into a School.* (Respondent no.10)
- *...for me as leader of an academic group, I am not a model.* (Respondent no.16)
- *A lot of success does come from the person at that time... it comes from people who are supporting... it comes from people who are supporting... the success of the university is directly from the individual who is leading at that time.* (Respondent no.17)

5.9.3   Individual-based Academic Leadership Performance

Several respondents claimed their performance of academic leadership can be considered as individual-based. They stated their motives were urged by the person himself or herself. Positive or negative perspectives on the individual's perspective reflected the person's true colours.

- *I am not really an outstanding person in terms of academic achievements... a moderate.* (Respondent no.1)
- *My achievement is by result.* (Respondent no.3)
- *I set targets... this is the way I work, I identify what are the issues.* (Respondent no.6)
- *My success... I have been able to build a new paradigm shift in this school... and been able to create new activities.* (Respondent no.14)
- *...managing conflict was the biggest problem. Now we don't have that... at least to me that is an achievement.* (Respondent no.16).
- *...trust of the university was eroded... reputation of the school was at stake. I bring back the reputation of the school at the top level to see this school still can contribute to the university. I am quite proud... the university keeps referring to us.* (Respondent no.16)

5.9.4 *Negative Perspective of Academic Leadership Performance*

In two instances, respondents no.9 and 17 claimed their negative perspective on academic leadership performance.

- *I consider myself as not performing, because I am not ready to lead the school. This was due to my interest, I am not interested in* [the school subject areas]... *not my area. If I am the dean of* [my area] *this will be a different thing. My* [area of] *interest will be blended with the deanship*. (Respondent no.9)
- *Personally, no... I have not delivered.* (Respondent no.17)

5.10 Leadership Style

Respondents were asked about their leadership style in managing their office. They gave their insight on their leadership style as:

- *You must be a good listener... and giving some suggestions*. (Respondent no.2)
- *Friendly, consultative.* (Respondent no.3)
- *...certain KPI must be achieved... for them to be* [evaluated]. (Respondent no.4)
- *Open... and participative management.* (Respondent no.5)
- *Participative.* (Respondent no.7)
- *Empowerment and consultation*. (Respondent no.13)

- *My style... I will try to uphold certain principles... fairness and justice.* (Respondent no.15)
- *Laissez-faire.* (Respondent no.16)
- *Exemplary type.* (Respondent no.17)

Respondent no.9 expressed his leadership style: *"I do not consider myself as a leader during my tenure as the dean... but accept the deanship because of the trust given and responsibility."* He further stated on performance, *"not perform that well because deanship is not permanent or elected. You are appointed by the Vice Chancellor."* When asked about leadership style, he said *"I am not firm, I try to make friends... and consult them on administrative."*

5.11 Charisma

Scholars have revisited the trait theory specifically in understanding an individual's charisma. In this study, charisma is explored among academics in the public universities in Malaysia. They are asked about their perception on charisma. How is charisma reflected on the respondent himself or herself? From the interviews, respondents reported various perspectives on charisma in terms of having a charisma or not.

Some respondents agreed about having charisma in academic leadership. They said:

- *Charisma is most important.* (Respondent no.3)
- *Charisma is important.* (Respondent no.8)
- *...being charismatic would have an impact... it will make people want to listen to you when you have something to say to them.* (Respondent no.13)
- *Charisma is more than first impression It does make a difference in many things.* (Respondent no.17)

On the other hand, some said charisma is not needed in academic leadership. They indicated:

- *I don't know whether charisma is essential in a university context.* (Respondent no.6)
- *To me this is very tangible. Either you have or not.* (Respondent no.10)

- *Charisma very much in the eyes of the followers. I don't see my staff see me as charismatic.* (Respondent no.16)

5.12   Summary

From the structured interview, respondents gave their quantified data in explaining the components needed for academic leadership namely attributes, attitudes and skills. These components were associated toward faculty members' performance in terms of work-related attitude, namely job satisfaction, career satisfaction and organizational commitment. Apart from individual performance of work-related attitude, faculty members' performance was also associated with their other performances such as institutions and groups. Interestingly, faculty members revealed their individual leadership style used in their administration. Finally, the majority agreed that charisma did have some impact on their academic leadership.

CHAPTER 6: DISCUSSIONS

6.1 Introduction

This chapter presents the discussions of this study. It is presented in the manner of research questions. The first section explains the rationale of the study's data collection methods of structured interview and survey. The second section discusses Research Question 1 (RQ1) on academic leadership definition. The third section discusses Research Question 2 (RQ2) on components of academic leadership and work-related attitude. The fourth section discusses Research Question 3 (RQ3) on the relationship between academic leadership and work-related attitude. The final section discusses Research Question 4 (RQ4) on the impact of academic leadership on work-related attitude.

6.2 Structured Interview and Survey Rationale

This study obtained data from structured interview and survey. Both methods were used to obtain data in answering the research questions in the study. There were four research questions. Two research questions were answered using the structured interview data. The data from structured interview was used to answer RQ1 and RQ2 on academic leadership definition and components of academic leadership and work-related attitude, respectively. RQ1 and RQ2 were in the form of answering "what".

Further, the remaining two research questions were answered using the survey data. The data obtained were used to answer RQ3 and RQ4 that relate to the relationship between academic leadership and work-related attitude, and the impact of academic leadership on work-related attitude, respectively. Similarly, RQ3 and RQ4 asked "what".

Not many studies have been conducted on academic leadership in the public universities in Malaysia. In order to understand the issues in academic leadership, this study employed structured interview as the method of gathering data from informants (Sharivasta & Grant, 1985; Bourgeois & Eisenhardt, 1988; Thompson, Locander & Polio, 1989; Rubin & Rubin, 1995; Dean & Sharfman, 1996; Fontana & Frey, 2005; Elbanna & Child, 2007a, 2007b; Collis & Hussey, 2009). Additionally, the survey questionnaire was also used to gain data. This study intended to obtain a generalization on academic leadership among faculty members in the public universities of Malaysia.

From sample results, it could generalize or make claims about the population (Creswell, 1994; Collis & Hussey, 2009).

6.3   Definition of Academic Leadership (RQ1)

This study tries to construct the definition of academic leadership from the perspective of faculty members of public universities in Malaysia. This section answers RQ1: What is the definition of academic leadership? Thus, several structured interview sessions were conducted with 16 faculty members from a public university in Malaysia. These structured interviews obtained data from faculty members whom are holding administrative positions at various departments. Respondents were asked in general about their personal perspective of academic leadership which leads to their own interpretation of academic leadership. **Thus, this study proposes the definition of academic leadership as faculty members with academic leadership should be a visionary, lead and supervise others, advise clear paths and directions, make knowledge transfer through teaching, and make decisions with an interest in achieving objectives of personal and organization.**

In the data collection process through the structured interviews, respondents gave various perspectives on academic leadership. Somehow, several keywords formed the definition of academic leadership, as derived from the structured interviews. The keywords generated from the structured interviews are people, visionary, direction, lead, decision, teach and clear path. Several keywords were mentioned several times by different respondents during the structured interview. These give an indication that the keywords are important in forming and understanding the academic leadership. From the above keywords, this study sees academic leadership as the person who has people (or subordinates) in formal or informal networks.

In the move of having an academic leadership definition, this study admits there are differences between leadership in the context of private organizations, public organizations and public universities. Private organizations are driven based on profit orientation. Leaders of private organizations perceive efforts and works in terms of profit that they are making for the organizations. From the private organizations' perspective, these leaders are rewarded based on the profit that they make for the organizations. Thus the leadership in the private organizations are toward aggressive, time driven, profit motivated and oriented.

In public organizations, the leaders are driven based on their obligations to serve the public. These public leaders are also obligated to the ruling government. Thus, in considering leadership in the context of public organizations, these leaders are given instructions by the ruling government and public code of practices. Public leaders are seen as taking orders from the top management and ruling government.

In the context of public universities, the leaders need to portray their academic leadership in their personal expertise and administrative levels. For personal expertise, faculty members are considered leaders in their own expert domain. They express their thoughts and opinions according to their field. At administrative levels, these leaders are people who are capable of handling the administration of their department, staff members and colleagues. Leaders in academia have to juggle their virtues in managing their academic leadership. These faculty members are leaders of academic leadership which can be considered as professional. They provide direction, process and coordination to the members of an organization for the purpose of attaining the organization's goals (Eddy et al., 2008). Thus leaders of academic leadership establish mission and vision, and communicate with employees.

Further, in defining academic leadership, the person needs to be a visionary who can lead and give direction toward a clear path of the organization's vision and mission. At the same time, academic leader needs to be confident and remain calm in difficult situations, as well as manage emotion while caring for others by being an active listener, good communicator and have good listening skills (Susan et al., 2008). Every individual has their own scholastic capabilities and expertise. In one instance, a respondent explains that an academic leader needs to lead, then empower their people, and finally let them lead the others. Faculty members of academic leadership must treat other people as an important person. This can be done through periodic meetings with faculty, providing mentoring, adopting a working environment to support leadership, developing goals and career paths, and offering help and support when needed (Kezar et al., 2007 in Susan et al., 2008).

Bowman (2004) claims that faculty can be a leader because of the positive changes they make in the intellectual, social, emotional, physical and ethical lives of people under them. In this context, academic leaders such as department heads become a good role model for faculty members through indentifying areas of strength and leadership

development. At the same time, the person can teach, educate and make other people succeed under his or her academic leadership. Thus, mentoring can be used in teaching and educating faculty members. In mentoring, the experienced person can guide a person with less experience (Susan et al., 2008). From mentoring, it is expected to be very productive, especially peer-to-peer mentoring (Susan et al., 2008). Further, the person has the authority to make decisions on the people and direction toward the organization's objectives. As mentioned by Susan et al. (2008) faculty are stewards of campus leadership and decision making.

In summary, there is limited universal definition of academic leadership based on the reviews of academic leadership literatures. Most studies talk in general terms of academic leadership (Flowers & Moore, 2008; Bikmoradi et al., 2009). Even in general leadership literature, most scholars define leadership based on the context of their studies rather than the general and universal definition.

6.4   Components of Academic Leadership and Work-Related Attitude (RQ2)

From structured interviews, several components are highlighted in relation to the academic leadership and work related attitude. This section elaborates on RQ2: What are the components of academic leadership and work-related attitude? The first section talks about the academic leadership components. Finally, the second section elaborates on work-related attitude components.

6.4.1   Academic Leadership Components

From structured interviews, the academic leadership components are grouped based on the thematic analysis. Academic leadership components are compiled and can be grouped into three, namely attitudes, attributes and skills. Thus for faculty members to have academic leadership, they need to have attitudes, attributes and skills.

6.4.1.1 Attitudes

Attitudes were highlighted by most respondents during the structured interview. They believe leaders of academic leadership require positive attitudes in carrying out their duties. Attitude is a settled way of thinking or feeling about someone or something, typically one that is reflected in a person's behaviour. Also, attitude is a mental position relative to a way of thinking or being. Thus, structured interviews of leaders about academic leadership state that academic leadership needs to be selfless, undertake

teamwork, be committed, take risks, give and take, be honest, fast, open minded, be an achiever, motivated and show a good example. In academic leadership, faculty members may combine the listed attitudes in order to make things work.

The finding of attitudes among faculty members regarding their academic leadership is in accord with the study by Spendlove (2007). Spendlove perceives attitudes of good leaders to be that they need to be self-aware, flexible, open, honest, discrete, visible/outgoing, willing to be wrong/accept advice/support, and sensitive to the views of others. As an example of having acceptable attitudes, faculty members of academic leadership must not be selfish, as such they must think and act for the benefit of their team and organization. They also need to have an open mind especially in teamwork. In teamwork, faculty members must not be selfish especially in making decisions, however, they must encourage and accept ideas from the other team members. Being open minded toward accepting changes is similar with a previous study that academic leaders are willing to accept changes (Bikmoradi et al., 2009). Open mindedness and team skills have been expected among telecommunication managers, this is in accordance with this study regarding being open minded and teamwork.

In academic leadership, leaders must have commitment. They need to show that they are committed in their duties and job functions. In this study, it reveals that faculty members of academic leadership indicate their high level of commitment. This is supported from the structured interviews. Further this is supported by Walsh and Taylor (2007) in their studies on management staff turnover in the hospitality industry. They reveal job features enhance management commitment levels such as challenging jobs, taking charge of career, competent leadership and fair compensation. As these job features are in place, these managers are less likely to have a turnover intention.

Being honest is also an important attitude needed by leaders of academic leadership. Thus, faculty members of academic leadership need to be seen as honest in doing the jobs and gaining trust from staff and subordinates (Brunard & Kleiner, 1994). Previous studies confirm that honesty is highly regarded in leadership (Erickson, 2006; Bandsuch, 2009). Erickson (2006) confirms that important components a leader must possess are honesty, truthfulness, be ethical and principled. He also states it is one of the components that public administrators face in leading an organization. Bandsuch (2009)

indicates integrity is an essential quality for business managers at all levels of an organization.

Further, the attitude of being a risk taker and achiever by leaders of academic leadership can set an example for subordinates. This finding is in accord with Birkmoradi et al. (2009) as risk taking will lead to innovation and creativity, and increase motivation among medical school faculty members in Iran. Moreover they discover that high centralization, politicization and bureaucracy hamper effective academic leadership and motivation.

6.4.1.2 Attributes

An attribute is a quality or feature regarded as a characteristic or inherent part of someone or something. In general, an attribute is a property or characteristic. During structured interview, respondents believe leaders of academic leadership must have the following attributes in carrying out administrative duties. The attributes of academic leadership are vision, acceptance of ideas, intelligence, patience, planning, motivation, discipline and quality. Moreover the list of attributes of this study is in the similar vein with the list of thirty items in the study conducted by the Global Leadership and Organizational Behavior Effectiveness (GLOBE) Research Program (Hartog et al., 1999).

The work of Fu and Tsui (2001) on leadership attributes desired by the People's Republic of China, they discover that fifty three leadership attributes which are derived from the printed media on Chinese leaders. The attributes of this study is also listed on the list of Fu and Tsui (2003). Further subordinates of school administrators in Singapore (Zhang, 1994) indicated the list of twenty one principal's attributes which has some similar attributes in this study.

The quality of being a visionary is in accordance with the study by Nicholson (2007) where a focused description of vision came from the story of an institution and the communication of vision through the spoken word and embodiment of the vision. These help the university's president in strengthening fund-raising activities. This shows that a visionary make an important contribution toward the faculty members' academic leadership.

6.4.1.3 Skills

Respondents state that skills are needed by leaders of academic leadership such as capability, people skills, leadership, research, knowledge and managerial skills. Skill is the ability to do something well and can be considered an expertise. Further, skill is also seen as an ability that can be acquired by training. Respondents indicate that leaders of academic leadership need to have the skills such as capability, people skills, leadership, research, knowledge, managerial skills, discipline and quality. These skills are important for faculty members who lead their staff and colleagues toward the organization's objectives.

Human skills or people skills are highlighted as one of the main concerns to faculty members in academic leadership. Some academic leaders are regarded as lacking in human skills. They are not capable of handling the "human" in terms of communications and needs. This finding is in accordance with Blake and Mouton's (1964) Managerial Grids where they highlight the managers' perspective toward humans and works. Human skills that are considered critical include decision-making skills, confronting the role of the manager-leader, communication skills, team-building skills, and leadership skills (Wallace & Marchant, 2009). Previous studies confirm skills are important for management (Kamaria & Lewis, 2009).

Leaders of academic leadership are seen as more engaged in their administrative or managerial skills. These leaders are seen as rigid and not able to balance between humans and work. In academic leadership, faculty members need to consider human skills or soft skills in their administrative skills. Dixon, Chantler & Billings (2010) state professionals need both technical skills and soft skills such as an ability to communicate, coordinate, work under pressure and solve problems. Negotiation skills are also important in academic leadership.

In academic leadership, faculty members are not exempted from dealing with people. They have to deal with their staff and colleagues in leading the department. As such, people or human skills are important in dealing with staff and colleagues. These human skills are needed in persuading their staff and colleagues toward the organization's objectives.

Faculty members also need to be knowledgeable in their field, managerial and administrative. Thus managerial skills are important for academic leadership in directing and channelling their staff and colleagues according to the organization's requirements.

The discipline of academic leadership is important to be perceived by staff and colleagues. The person's discipline will be measured and monitored by others in the department. Thus the person's discipline can eventually be translated in the quality of the person.

6.4.2 *Work-Related Attitude Components*

Reflecting from the structured interviews on work-related attitude components, respondents state their level of satisfaction on job satisfaction and career satisfaction by indicating they are very unsatisfied to very satisfied. Meanwhile, for organizational commitment, respondents' state their level of agreement by indicating strongly disagree to strongly agree.

In the earlier theoretical framework, work-related attitude comprises of three items namely job satisfaction, career satisfaction and organizational commitment. In general, respondents indicate academic leadership has a substantial impact on their job satisfaction, career satisfaction and organizational commitment.

From the structured interviews, almost two-third of respondents highly agree about their organizational commitment. This is in accordance with Erkutlu (2008) who found that leadership behaviours may result in positive effects on commitment. Further, through top management leadership, the other subsequent leaders would, more willingly, cooperate and commit to the organization (Eddy et al., 2008). This is found to be true as when leaders of academic leadership are supported by the top management they cooperate and commit to their organization.

Next, on career satisfaction, almost three quarters of respondents indicate very high levels of career satisfaction. Most of the respondents are long serving at their present university. This finding is in accordance where tenure is related to career satisfaction among professional women (Armstrong-Stassen & Cameron, 2005). Moreover, respondents also claim they have good support from the university's top management.

Thus, organizational support is significant toward professional women's career satisfaction (Armstrong-Stassen & Cameron, 2005).

Finally, more than two-thirds of respondents indicate high job satisfaction. This result is similar to leadership behaviour which may result in positive effects and high job satisfaction (Erkutlu, 2008). Further, Erkutlu states that the actions and attitudes of those in positions of authority affect the actions and attitudes of employees. Thus, this is seen that leaders of academic leadership are paying attention to their administrative skills and human skills as a result of employees' actions and attitudes. Eddy et al. (2008) state that caring is important for employees where employees are more likely to work hard for a supervisor who they feel cares for them as individuals.

6.4.3 Summary

This study discovers that academic leadership has an impact on faculty members' work-related attitude. This is based on the structured interview data given by faculty members of public universities. Thus, it is concluded that a faculty member of academic leadership needs academic leadership components, namely attitude, attribute and skills. Subsequently, these three academic leadership components transform faculty members which, in turn, have an impact on their work-related attitude, namely organizational commitment, career satisfaction and job satisfaction.

6.5 Relationship between Academic Leadership and Work-Related Attitude (RQ3)

This section elaborates on the relationship between academic leadership and work-related attitude from the questionnaires. Thus, this section answers RQ3: What is the relationship of academic leadership and work-related attitude? This study examines the results from factor analysis where academic leadership and work-related attitude were factored according to their factor loading. From factor analysis there are four factors of academic leadership. The study renamed the academic leadership factors as innovative, effective, executive and adaptive. Meanwhile for work-related attitude factors were comprised of four factors and renamed as organizational commitment, career satisfaction, job satisfaction and job skills.

Faculty members indicate their agreement on innovative, effective, executive and adaptive as prone toward strongly agree. They agree on almost all items that refer to their behaviour of academic leadership. On the other hand, faculty members indicate

their satisfaction and agreement on organizational commitment, career satisfaction, job satisfaction and job skills as above agree but below strongly agree. In general, faculty members indicate academic leadership has a relationship with work-related attitude in the context of public universities in Malaysia.

Overall, there is a large relationship between academic leadership and work-related attitude as confirmed by faculty members. Further, the largest relationship of academic leadership factors with work-related attitude is with job skills. Meanwhile the smallest relationship of academic leadership factors with work-related attitude is with job satisfaction. Meanwhile for work-related attitude factors, the largest relationship is with executive and the smallest relationship is with adaptive.

6.5.1 Academic Leadership Factors Relationship

Academic leadership factors have a large relationship with job skills and organizational commitment. It has a medium relationship with career satisfaction and job satisfaction.

<u>Innovative Relationship</u>

For academic leadership factors, innovation has a large relationship with job skills. Innovation has a medium relationship with organizational commitment and career satisfaction. Further, innovation has a small relationship with job satisfaction. Innovation can be seen from faculty members' new ideas and creativity in meeting the organization's objective. Innovation may require job skills for faculty members in doing their work. Das (1993) confirms that innovation does improve job skills among bank managers. Further, job skills are also needed for faculty members to exercise executively in terms of power and authority.

Further, job skills are needed among academic leadership as they need to lead and manage themselves. Job skills relate to human performance (Grazier, 1992) as employees try to maximize their skills toward their jobs; meanwhile organizations perceive human skills as the minimum level for their acceptance. Job skills are important to employees such as faculty members in the public university to excel their personal performance and fulfil the needs of their organization. Academic leaders need to have job skills such as interpersonal skills for communication and interaction among their staff and colleagues. Training improves job-related skills (McDowall, 2010).

Yap and Holmes (2010) state that training improves career satisfaction. The human resources department needs to give training to their academic leaders for dealing with humans. Academic leaders require training as it will improve their job skills in dealing with staff, colleagues and students in addition to people outside the organization (Liu, 2011; Nadrag & Mitran, 2011). Subsequently, job skills are important as academic leaders have to direct and manage their subordinates and students in fulfilling their personal performance and the organization's objectives.

For innovative and organizational commitment, Subramanian and Lokman (2001) state that value orientation toward innovation has an effect on organizational commitment. By implementing a programme of change, this can be seen as innovative by employees and improve their organizational commitment (Pate, Martin & Staines, 2000). Moreover, an innovative and supportive culture has an effect on job satisfaction (Lok & Crawford, 2004).

Effective Relationship

Effectiveness has a medium relationship with organizational commitment and job skills. Further, effectiveness has a small relationship with career satisfaction and job satisfaction. Being effective at work, faculty members can benefit their work-related attitude. As faculty members are at work, effectiveness can be translated into their way of undertaking works, directives and needs of the organization. Yap and Holmes (2010) state that diversity training is perceived as effective as it can increase the employees' organizational commitment and career satisfaction. Further, Ali and Al-Kazemi (2008) indicate Kuwaiti managers manifest commitment and effective performance. Regarding the relationship between effectiveness and job skills is is claimed that job skills need to be updated for job performance and productivity (Shadare, 2011). Job skills are essential for effective leadership (Dixon et al., 2010) and a prerequisite to effective management (Theodore, 2010). In marketing, Gounaris (2008) states that internal market orientation has an effective impact on job satisfaction of marketers.

Executive Relationship

Acting in an executive thinking has a large relationship with job skills. It has a medium relationship with career satisfaction and organizational commitment. Further, working in an executive way has a small relationship with job satisfaction. Faculty members do require executives in their academic leadership such as visionary, forward thinking,

decision making and administrative functions. The executive role of academic leadership has a strong relationship with work-related attitude. This is consistent with the previous studies on executive leadership where managers do need to be forward and positive thinking added with visionary in their management (Nicholson, 2007; Andolsen, 2008). By practicing executive thinking in management, faculty members have a favourable relationship with their work-related attitude.

Adaptive Relationship

Being adaptive has a medium relationship with job skills. Further, adaptability has a small relationship with organizational commitment, career satisfaction and job satisfaction. Being adaptive, faculty members need to be open and flexible toward the changes in their organization and environment. Thus job skills are needed for faculty members to be adaptive in their works. Moreover, faculty members need to be ready for challenges whether they are local or global.

6.5.2 *Work-Related Attitude Factors Relationship*

Work-related attitude factors have a large relationship with executive. Further, work-related attitude has a medium relationship with innovative, effective and adaptive.

Organizational Commitment Relationship

For work-related attitude factors, organizational commitment has a medium relationship with innovation, executive and effective factors. Meanwhile, organizational commitment has a small relationship with adaptiveness. For organizational commitment, the study explains that academic leadership has an influence on faculty members' commitment toward their organization. Organizational commitment is also substantiated with the number of years serving of faculty members with their present organization. Thus, the longer they serve the organization, the higher their organizational commitment. Iqbal (2010) confirms that length of service is significantly associated with organizational commitment among employees in Pakistan. Meanwhile, Awamleh (1996) claims length of service has a weak yet positive relationship with organizational commitment among civil service managers in Jordan. In support, the study's data, collected from the structured interviews, indicates most faculty members have served more than 10 years with their present organization. Further, Johnston et al. (1990) support that job satisfaction and organizational commitment each have an impact.

Career Satisfaction Relationship

Career satisfaction has a medium relationship with the executive and innovative factors. Further, career satisfaction has a small relationship with the effective and adaptive factors. Nonetheless, academic leadership also has a medium relationship with career satisfaction of faculty members. As the faculty members hold a position in the organization, their career satisfaction will increase accordingly. Apart from holding a position, faculty members can obtain career satisfaction based on academic promotion to associate professorship and full fledged professorship. In the context of academic leadership in the public universities, faculty members gain monetary reward and fringe benefits as they move on with their career development. Thus, they obtain additional allowances and benefits on top of their salary. This has a substantial impact on the faculty members' career satisfaction.

Job Satisfaction Relationship

Job satisfaction has a medium relationship with the executive factor. Further, job satisfaction has a small relationship with adaptive, effective and innovative factors. Job satisfaction has the lowest relationship with innovation as compared among other factors in academic leadership; however, it is still considered as having a high relationship with the overall academic leadership and work-related attitude. The study believes that job satisfaction and innovation of faculty members comes naturally as they are in an administrative position or heading a research group.

Job Skills Relationship

Job skills have a high relationship with the executive and innovative factors. Further, job skills have a medium relationship with effectiveness and adaptiveness. Job skills have a high relationship with innovativion and being executive. This indicates that faculty members need to have job skills in order to be innovative in their works. Das (1993) confirms that innovation does improve job skills among bank managers. Further, job skills are also needed for faculty members to exercise their executive skills in terms of power and authority. Job skills are needed among academic leadership as they need to lead and manage themselves. Job skills relate to human performance (Grazier, 1992) as employees try to maximize their skills toward their jobs; meanwhile organizations perceive human skills as the minimum level for their acceptance. Job skills are important to employees such as faculty members in public universities to excel their personal performance and fulfil the needs of their organization.

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6.5.3 Demographic Relationship

The demographic relationship between academic leadership and work-related attitude can be elaborated for gender, marital status, ethnicity, academic rank, qualification, academic discipline and administrative position.

6.5.3.1 Gender

Gender of faculty members does not show any differences of relationship with academic leadership. Similarly, they also do not show any differences of relationship with work-related attitude. This shows that male and female faculty members do not have any differences in their perception toward academic leadership and work-related attitude. Thus, they have a similar perception of academic leadership and work-related attitude.

6.5.3.2 Marital Status

Marital status does not show any differences in relationship between single and married faculty members on academic leadership and work-related attitude. Thus single and married faculty members do not have any differences in their perception toward academic leadership and work-related attitude. Thus, they have a similar perception of academic leadership and work-related attitude.

6.5.3.3 Ethnicity

Ethnicity of faculty members does not show any differences in their perception toward academic leadership and work-related attitude. Malays, Chinese and Indians perceive academic leadership and work-related attitude as similar. Thus, they have similar perceptions concerning academic leadership and work-related attitude.

6.5.3.4 Academic Rank

Academic rank among faculty members shows differences in innovative and executive factors of academic leadership. Similarly, academic rank among faculty members shows differences on organizational commitment, career satisfaction and job satisfaction of work-related attitude. Interestingly, the views of lecturers, senior lecturers, assistant professors, associate professors and professors are different. The thinking toward innovative and executive factors among them is different. The thinking of being innovative and executive is different among academic leadership and work-related attitude. On the other hand, effective and adaptive factors show no differences in their

view toward academic leadership. No difference is found in job skills of work-related attitude.

6.5.3.5 Qualification

Faculty members' qualification shows there are differences in the perception of academic leadership. Based on the level of qualification among faculty members, the qualification makes a significant influence on their academic leadership. For those with a doctorate qualification, they are considered well trained in the field as compared to those with other qualifications such as bachelor and master degrees. Faculty members differentiate among themselves on innovative, effective and executive factors.

Meanwhile faculty members show no difference in work-related attitude against academic qualification, specifically on organizational commitment, job satisfaction and job skills. In general, they accept the fact that they are paid with salary and benefits according to their academic qualification. Interestingly, faculty members show their differences in career satisfaction. This career satisfaction difference can motivate faculty members to pursue their career advancement. This is meaningful for those who are qualified with a bachelor's degree to obtain a master and, later, doctorate degree. Meanwhile, those with a master degree will urge themselves to obtain a doctorate degree. In this instance, public universities, with the support from the MOHE, have made various programmes for their faculty members to pursue masters and doctorate degrees at local or overseas universities.

6.5.3.6 Academic Discipline

Interestingly, among faculty members of their academic discipline, none show differences in academic leadership and work-related attitude. In other words, faculty members in public universities show that they are level in their thinking in academia regardless of whether they are in trained in pure sciences, applied sciences, pure arts or applied arts.

6.5.3.7 Administrative Position

In general, administrative position shows differences among faculty members in academic leadership and work-related attitude. Thus, the higher the person at an administrative position, then there will be differences in their level of thinking.

Interestingly, faculty members indicate their differences in the innovative and executive factors, but not on effectiveness and adaptability. From the perspective of top management, they may need to improve on the faculty members' effectiveness toward their administrative position. Similarly, they can also improve on the faculty members' adaptive perspective. If these can be changed in the faculty members' mentality, then the organization will benefit most from it. The benefits can be seen from prior thinking before taking actions by faculty members and perceived changes as positive rather than negative views. Meanwhile, on job satisfaction, they also show no differences among faculty members. This needs to be changed by top management as faculty members may be at the position but need not have the job satisfaction to manage their responsibilities.

6.6 Impact between Academic Leadership and Work-Related Attitude (RQ4)

In this section, the impact between academic leadership and work-related attitude is discussed. This section discusses RQ4: What is the impact of academic leadership on work-related attitude? In the subsequent section, the main hypothesis and four sub-hypotheses are elaborated upon.

6.6.1 Academic Leadership and Work-Related Attitude

The main hypothesis proposes that academic leadership has a positive effect on work-related attitude. The results show that as there is a change of 0.51 in academic leadership then it affects the work-related attitude of faculty members. Thus, the main hypothesis is fully accepted where academic leadership has a positive impact on work-related attitude.

6.6.2 Academic Leadership and Organizational Commitment

Hypothesis 1 proposes that academic leadership has a positive effect on organizational commitment. The results show that two sub-hypotheses are significant, namely: (1) innovation has a positive effect on organizational commitment and (2) executive has a positive effect on organizational commitment. Further, it reveals that when there is 0.22 change in innovation, academic leadership has a positive impact on the organizational commitment. Similarly, when there is 0.28 change in the executive factor, academic leadership has a positive impact on the organizational commitment. Thus, Hypothesis 1 is partially supported where academic leadership has a positive impact on organizational commitment.

6.6.3 *Academic Leadership and Career Satisfaction*

Hypothesis 2 proposes that academic leadership has a positive effect on career satisfaction. The results show the executive factor has a positive effect on career satisfaction. Further, it reveals that when there is 0.34 change in executive, academic leadership has a positive impact on career satisfaction. Thus Hypothesis 2 is partially supported where academic leadership has a positive impact on career satisfaction.

6.6.4 *Academic Leadership and Job satisfaction*

Hypothesis 3 proposes that academic leadership has a positive effect on job satisfaction. The results show that executive factor has a positive effect on job satisfaction. Further, it is reveals that when there is 0.28 change in executive, academic leadership has a positive impact on job satisfaction. Thus Hypothesis 3 is partially supported where academic leadership has a positive impact on job satisfaction.

6.6.5 *Academic Leadership and Job skills*

Hypothesis 4 proposes that academic leadership has a positive effect on job skills. The results show that two sub-hypotheses are significant, namely: (1) innovation has a positive effect on job skills and (2) executive working has a positive effect on job skills. Further, it reveals that when there is 0.19 change in executive working, academic leadership has a positive impact on job skills. Similarly, when there is 0.32 change in adaptability, academic leadership has a positive impact on job skills. Thus Hypothesis 4 is partially supported where academic leadership has a positive impact on job skills.

6.7 Summary of Impact

The novelty of this study is that it discovers the impact between academic leadership and work related attitude factors as claimed by faculty members in the public universities of Malaysia. The academic leadership is contributed by innovative and executive. Meanwhile for work-related attitude, the study affirms the factors as organizational commitment, career satisfaction, job satisfaction and job skills.

In the other words, if faculty members make changes to their academic leadership then their work related attitude is impacted. Therefore, faculty members of academic leadership need to be innovative and executive in order to impact their organizational commitment, career satisfaction, job satisfaction and job skills. Specifically, the executive factor has the most impact on work related attitude. This is followed by

innovation. Unfortunately, effectiveness and adaptive have no impact on work related attitude.

6.7.1 Executive

First, the executive factor has a huge impact on work related attitude of organizational commitment, career satisfaction, job satisfaction and job skills. This concludes that faculty members of academic leadership need to have the mind of an executive as it impacts their organizational commitment, career satisfaction, job satisfaction and job skills. The order of impact of the executive factor is on career satisfaction, job skills, job satisfaction and organizational commitment. In other words, executive thinking and behaviour of faculty members has an impact on their work related attitude.

As faculty members think of the future and work on it then they have the intention of improving their work related attitude. This can be seen from faculty members' behaviour that share ideas among staff and colleagues, encourage members, positive attitude, schedule works and maintain standard of performance. Sharing ideas among staff and colleagues are in accord with studies by Dewhurst and Fitzpatrick (2007), Henshon (2007), and Vavasseur and MacGregor (2008). Faculty members who encourage other members are supported by works from Clarke et al. (2008), Paulsen, Maldonado, Callan & Ayoko (2009), Bridle (2010) and Chakravarthy (2010).

Further, findings on positive attitudes are similar with Niehoff et al. (1990), O'Connor and Fiol (2006), and Nwokah (2008). Moreover, faculty members of academic leadership who schedule their works are also noted in previous studies (Breul, 2009; Somers & Svara, 2009; Towill, 2009).

Finally, faculty members who maintain standard of performance are in accordance with a study by Paarlberg and Lavigna (2010). These have, subsequently, impact on faculty members' career satisfaction, job skills, job satisfaction and organizational commitment.

6.7.2 Innovative

Second, the innovative factor has an impact on organizational commitment and job skills. In this context, faculty members who improve their innovation in academic leadership will subsequently impact their organizational commitment and job skills.

Thus, faculty members will be more committed to their organization. This can be interpreted from their involvement in research and consultancy. Further, these faculty members can also be innovative in dealing with staff and colleagues. Job skills include knowledge about and ability to work with people and accomplish the organization's goals. Thus, as faculty members strive their efforts in meeting the organization's objectives through research, consultancy and publications. In meeting these objectives, faculty members have to deal with other people such as staff and colleagues, thus, this improves their job skills and, subsequently, it impacts on their job skills.

Being innovative is in accord with Nicholson (2007) as he claims that a university president's success depends on the ability to obtain funding to the university. This funding complements funding toward research and university activities. Similarly, the effort of consultancy will bring funding to the university. Thus, faculty members need to be innovative in getting the funding for their research and consultancy as this will impact on their work related attitude specifically on organizational commitment and job skills. In contrast, Yanez (2004) studied groups rather than individual faculty members, but she discovered that innovation had influence on stimulating performance of a group at a Mexican university.

Faculty members' innovation can be seen from their effort of stimulating their own self and others, being persuasive talkers, skilful, have strong confidence, inspiring members, having high enthusiasm, and communication in terms of being a representative and spokesperson for others. The faculty members' innovation for stimulating their own self and others is supported by previous studies (Elizer, 2000; Erkutlu, 2008; Paparoidamis & Guenzi, 2009). Being a persuasive talker in academic leadership is also supported by the works of Grint (2005), Barbuto and Wheeler (2006), Shugan (2006) and Rottmann (2007). The skills of faculty members are also in accordance with previous studies (McGrane, Wilson & Crammock, 2005; Svensson & Wood, 2005; Pedler & Abbott, 2008).

Similarly, faculty members who inspire members are supported by Kantabutra and Avery (2007), Bennett (2003), Kantabutra and Vimolratana (2009); and high enthusiasm is supported by the work of Atkins and Turner (2006).

Finally, communication as a representative and spokesperson for others are supported by Clark and Wheelwright (1992), Bhal et al. (2009), Erwin and Garman (2010), Korrapati and Nair (2010), and Kumarasinghe and Hoshino (2010). These have, subsequently, impact on faculty members' career satisfaction, job skills, job satisfaction and organizational commitment.

6.7.3   *Adaptive*

Third, the adaptive factor has no impact on any of the work related attitudes of organizational commitment, career satisfaction, job satisfaction and job skills. This expresses that faculty members of academic leadership are those people having an adaptive behaviour would be calm in facing uncertain situations, positive about outcomes, tolerant on changes and accepting of delays. Thus adaptive has no impact on any factors of work-related attitude.

6.7.4   *Effective*

Finally, the effective factor has no impact on any of the work related attitudes of organizational commitment, career satisfaction, job satisfaction and job skills. This expresses that faculty members of academic leadership are those people having effective behaviour in their work and professionalism. Thus effectiveness has no impact on any factors of work related attitude.

6.8   Proposed Model of Academic Leadership and Work-Related Attitude

In conjunction with the above impact, the study discovers a model that links between academic leadership and work-related attitude of faculty members in the context of Malaysian public universities. The model is depicted in Figure 6.1. Further, this proposed model will lead toward a contribution of diagnostic instrument for academic leadership and work-related attitude.

Faculty members reveal their high regards on academic leadership with the following order: executive, innovative and adaptive. Further, as faculty members, they are working independently with minimal supervision from their superiors (i.e. vice chancellor, deputy vice chancellor, dean, director, deputy dean, deputy director and department chairperson). Meanwhile, faculty members place a rank order according to the impact of work-related attitude that starts with organizational commitment, career satisfaction, job satisfaction and job skills.

Figure 6.1: Proposed Model of Academic Leadership and Work-Related Attitude
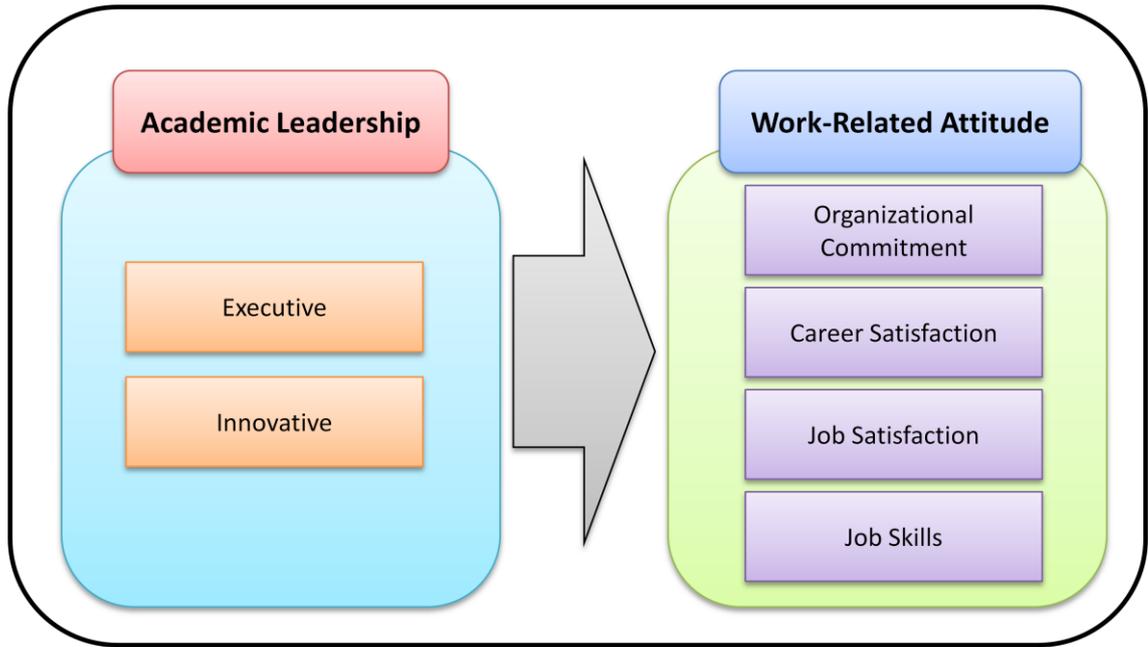
6.8.1 Academic Leadership

For academic leadership, faculty members indicated their order of importance, namely executive and innovative.

Executive

Faculty members' perceive the executive factor as the first that allows them to work independently with low supervision. In nature, faculty members work independently; even if they are in a group then the group works independently. Further, faculty members work based on their expertise and field of study toward subjects teaching, supervision, research, consultancy and community contributions. Thus this causes faculty members to have power and authority over themselves in their work. They can determine what to be done according to priority to suit their work-related attitude, namely organizational commitment, career satisfaction, job satisfaction and job skills. In summary, the executive factor has a significant relationship and impact on faculty members' work-related attitude.

Innovative

The second factor of academic leadership among faculty members is innovation. Being innovative is an important factor as faculty members are needed to pursue activities relating to their expertise such as research, consultancy and community involvements. For research, faculty members need to be innovative in their research ideas in order to

secure research grants from their university. Moreover, they need to secure external grants from various ministries and agencies in Malaysia. Apart from local grants, they also need to secure international grants. Similarly, for consultancy, faculty members are urged to secure consulting projects with various organizations, public, private or non-governmental organizations. Further, these faculty members are required to work with the community in disseminating their expertise and knowledge. Thus in the context of innovation, faculty members need to have interesting ideas concerning their research, consultancy and community involvements. These interesting ideas will allow faculty members to excel in their expertise and field of study. These, in turn, would affect faculty members' work-related attitude.

Adaptive

Unfortunately, the adaptive factor of academic leadership has no relationship and impact on faculty members' work-related attitude. They regard adaptive is not much needed in public universities. The idea of not being adaptive to the work of faculty member as they are considered themselves to be part of the universities' bureaucracy. Faculty members' adaptability is not much practiced as most instructions are done top-down by the public universities top management.

Effective

Unfortunately, the effective factor of academic leadership has no relationship and impact on faculty members' work-related attitude. Faculty members assume the factor has not much weight on their academic leadership. In the context of faculty members of public universities in Malaysia, they may tend to think that they are doing things according to their ways. Thus, for some faculty members, they may do it immediately to fulfil their needs in work-related attitude. However, some faculty members take their own pace in fulfilling their needs in work-related attitude.

6.8.2 Work-Related Attitude

For work-related attitude, faculty members indicate their order of importance, namely organizational commitment, career satisfaction, job satisfaction and job skills.

Organizational Commitment

Organizational commitment is regarded as high in faculty members' work-related attitudes. In the context of faculty members in public universities of Malaysia, they look

at their contribution and commitment to the organization as a first priority. They tend to fulfil their organizational commitment due to demands and instructions from their superior.

Career Satisfaction

Career satisfaction is placed second from organizational commitment. In this context, faculty members realize that by fulfilling the organizational commitment, they can fulfil their career satisfaction. Public universities do recognize faculty members' contributions in terms of their expertise through research, consultancy and community involvements. Additionally, they need to fulfil their organizational commitment in terms of teaching and supervision of students. By fulfilling the organizational commitment, faculty members are fulfilling their career satisfaction, once recognized by the organization.

Job Satisfaction

Although job satisfaction is placed third by faculty members in the work-related attitude, the mean of job satisfaction is considered high as rated by them. Their job satisfaction has a chain effect from organizational commitment and career satisfaction. As faculty members feel their career satisfaction is affected by organizational commitment, the total effect could boost faculty members' job satisfaction. They can feel satisfied in their job as they manage to fulfil the organizational commitment and, in turn, the organization recognizes their contributions by promotions and pay raises which are reflected in their career satisfaction.

Job Skills

Finally, job skills are no less important for faculty members in their work-related attitude. The mean of job skills is considered high among faculty members. In job skills, faculty members reflect their skills in terms of ability to do something such as teaching, supervision, research, consultancy and community involvements. Moreover, they are happy with their job skills in the ability to make decisions whether it be for themselves or for the organization. Further, their job skills are reflected in the manner of faculty members' dealing with their colleagues and superiors, and other people from outside the organization.

6.8.3 *Summary*

In this study is novel as it explores the constructs of academic leadership in the context of faculty members in Malaysian public universities. This study is also considered pioneering in exploring the relationship and impact between academic leadership and work-related attitude. Academic leadership is constructed by executive and innovative factors. These factors have a significant association and impact on faculty members' work-related attitude namely organizational commitment, career satisfaction, job satisfaction and job skills.

The executive factor consists of power and authority. Lee and Liu (2011) state faculty members' power and authority are used to determine a clear agenda and a personal philosophy toward their individual performance of work-related attitude. Yanez (2004) does not speak in terms of academic leadership but claims that leadership tends to be confined to the potential offered by the positions of authority. Further, power also makes a significant influence on achievement of objectives (Yanez, 2004). Another study, by Taleb (2010), explores the leadership styles of female educational leaders in Saudi Arabia. She discovered that female educational leaders tend to agree with this study's executive factor of academic leadership. Taleb (2010) states female educadional leaders emphasize vision and conveying it to others. Further, they also "tend to favour an educational leader who is a people- or interpersonally-oriented leader (i.e. embracing interaction, support and effective communication including active listening skills)".

Siddique et al. (2011) studied academic leadership in faculty members of an Islamic university. Their study differs from this study as they examine academic leadership toward faculty members' motivation and organizational effectiveness. They try to offer a model that "identifies important academic leadership styles that can help in motivating and satisfying the faculty members by providing various reward, and, in turn, increasing the organizational effectiveness as a whole" (Siddique et al., 2011).

Brown and Moshavi (2002) explore leadership variables, namely contingent reward, individualized consideration, intellectual stimulation, inspirational motivation and idealized influence on faculty members' satisfaction with supervision which is consistent with this study's satisfaction (i.e. job satisfaction and career satisfaction). Interestingly, Brown and Moshavi's (2002) results indicate that the "idealized influence (charisma) factor of transformational leadership was significantly more predictive to

desired organizational outcomes." This finding can be closely considered in support of this study on the executive factor.

Pounder (2007) examines transformational leadership in a university teaching context based on the assumption that it is possible to conceive of a university classroom as a quasi organization with teacher as leader and students as followers. This is consistent with the current study in terms of the executive factor of academic leadership. Moreover, faculty members are considered as having academic leadership as they lead their university classroom.

Majority faculty members favours the academic leadership factors in the order of executive and innovative in relation to their work-related attitude, namely organizational commitment, career satisfaction, job satisfaction and job skills. This is reflected in Appendix 24 where executive is very important for faculty members in their organizational commitment, career satisfaction, job satisfaction and job skills. Finally, innovative is important for faculty members in their organizational commitment and job skills. Unfortunately, faculty members do not see that effective and adaptive of their academic leadership make any influence on their work-related attitude.

Further, comparison between male and female faculty members were seen as interesting in this study (see table below and Appendix 25). Male faculty members show their affection on executive of academic leadership that make a significant influence on their organizational commitment, career satisfaction and job satisfaction. They also indicate innovative of academic leadership is important to their job skills. Unfortunately, male faculty members do not see effective and adaptive of academic leadership make any contributions to their work-related attitude in academia. Meanwhile female faculty members show a rewarding fulfilment on their work-related attitude. They claim executive of academic leadership does influence their career satisfaction and job skills. Innovative of academic leadership does influence their organizational commitment. Further, female faculty members state effective and adaptive of academic leadership do not influence their work-related attitude.

Academic Leadership Factor	Male	Female
Innovative	Job skills	Organizational commitment
Effective	-	-
Executive	Organizational commitment Career satisfaction Job satisfaction Job skills	Career satisfaction Job skills
Adaptive	-	-

From these results, it can be concluded that male faculty members adore executive factor as an important factor in their academic leadership in academia. The executive factor gave them an authority and power for them to exercise toward their expertise, research activities, and handling classes and students. The innovative factor has an influence on the male faculty members' job skills. As they are in the innovative mode and thinking, this will urge their job skills to be at the best state in their academic leadership. Conversely female faculty members had better combinations on the academic leadership as compared to their male counterparts. Female faculty members indicated executive factor of academic leadership had an impact on their career satisfaction and job skills. Innovative factors of academic leadership had an impact on their organizational commitment and job skills.

6.9   Conclusion

This chapter discussed the findings from the structured interview and survey questionnaire on faculty members of public universities in Malaysia. The discussion answers RQ1, RQ2, RQ3 and RQ4 of the study. Further, the proposed model of academic leadership and work-related attitude were also discussed.

CHAPTER 7: CONCLUSION

7.1   Introduction

This chapter covers several sections by summarizing the study, reflecting on the learning process, contributions, limitations and future research.

7.2   Recap of the Study

This study explores the relationship and the impact of academic leadership on work-related attitude. The study is set on faculty members of public universities in Malaysia through structured interviews and questionnaires. It endeavours to answer four research questions, namely definition of academic leadership, components of academic leadership and work-related attitude, relationship and impact between academic leadership and work-related attitude. The study findings suggest faculty members of academic leadership need to be innovative, transformational and adaptable to change. Thus, these subsequently impact the faculty members' organizational commitment, career satisfaction, administrative skills and human skills.

After going through a rigorous process of factor analysis, the study discovered that executive, innovative and adaptive of academic leadership factors have a high contributing impact on the organizational commitment, career satisfaction, job satisfaction and job skills of work-related attitude. Unfortunately, the effective factor of academic leadership has no impact on any factors of work-related attitude.

7.3   Contributions

This study contributes to the leadership's body of knowledge in several ways.

Firstly, in general, this study contributes to the conceptual side of academic leadership factors and work-related attitude factors. This study extends the previous scholars' works on leadership in organizations onto academic leadership. The study examines the Ohio State University's LBDQ-XII instrument on individual leadership behaviour of faculty members. The study proposes a diagnostic instrument for academic leadership and work-related attitude in the context of faculty members of public universities in Malaysia. Further, the study concept gives a new perspective of factors that contribute toward academic leadership and work-related attitude.

Secondly, most studies in leadership focus on the impact from the perspective of leaders or employees and vice-versa. This study reveals the self assessment of faculty members on their own academic leadership and work-related attitude. On the other hand, previous studies deal mostly with assessment of leaders on their followers and evaluation of followers on leaders. This study can be considered as the faculty members reporting their own performance in a report card. They reveal the contributing factors of academic leadership and work-related attitude that give an impact on their professional leadership in academia.

Thirdly, this study contributes the findings toward academic leadership in the context of faculty members of public universities in Malaysia. Empirically, the study reveals the underpinning factors that linger within the faculty members in understanding and exploring academic leadership and work-related attitude.

Fourthly, the findings of this study assist faculty members of public universities in Malaysia in dealing with the challenges and demands in academia. The study reveals the executive, innovative and adaptive factors to be considered by faculty members in pursing their academic leadership. In turn, these factors have an impact on their work-related attitudes namely organizational commitment, career satisfaction, job satisfaction and job skills.

Fifthly, from the perspective of policy makers of MOHE, they may urge faculty members to have the mentality of being executive, innovative and adaptive in pursuing their academic leadership. Subsequently, they may consider urging the university's human capital programmes to provide relevant training and seminars for their faculty members in relation to building their executive, innovative and adaptive mentality. Further, the university administrators (especially the vice chancellors), may urge their human resources department to expose their faculty members toward being executive, innovative and adaptive in pursuing their academic life.

Finally, this study contributes by testing a model, instrument and research process that is based in the US in an Asian country – Malaysia. Moreover, the proposed model has the potential to be replicated in other countries apart from the US and Malaysia. The replication of this study on academic leadership and work-related attitude in other countries may contribute to the body of knowledge.

7.4   Reflections of Learning Process

In the learning process, several reflections can be learned such as the formation of questions for the survey, the use of premium online survey by a third party, interview arrangements and population of universities.

7.4.1   Question Formation

In the questionnaire, one item can be considered as a double barrelled question. The item was TL5 "I do decide what and how shall the job be done". Although the question was originated from Stogdill (1963), it is necessary in this study that the question be revised. Due to the double barrelled question, the item TL5 had to be dropped from the analysis. This was decided based on the loading in the communalities, which was below 0.3. The question TL5 caused respondents to be confused whether to answer based on how they shall decide the job to be done or what job they decide shall be done.

7.4.2   Premium Online Survey Website

The use of a premium online survey website, www.surveymonkey.com, in the study is considered reasonable in terms of its cost. This online survey was conducted for three months. The website charged its premium services for less than £100.00. From experience, the use of this premium website is easy, convenient, helpful and a time saver.

The setup of the online survey is easy and fast. The questionnaire needs to be typed as we normally prepare in the conventional questionnaire. From the view of respondents, an online survey is convenient as most respondents have a computer at their workplace. Respondents also need not print the questionnaire in order to answer. This increases the response time for respondents to take part in the online questionnaire. The online survey is helpful and a time saver as I need not key in each and every response received. The data entered by respondents is saved and easily downloaded. Moreover, the data can be analyzed using the SPSS programme without having to be altered.

On the other hand, the online survey has its setbacks such as respondents are not keen to answer the emailed link. Some respondents block the survey website from sending invitation emails to participate in online surveys. Some respondents reply in an email indicating they are not interested in taking part in the online survey.

7.4.3 Interview Arrangements

Interview meetings could be frustrating. Although most interview meeting arrangements were made earlier not all agreed interview appointments can be fulfilled by participants. In this study, several appointments were cancelled at the last minute. These cancellations were due to participants' unavoidable and important commitments during the scheduled appointment meeting. On the bright side, most participants will make an effort to ensure the cancelled appointment is rescheduled within days.

Moreover, some interview participants can be contacted and secured during the interview activity. Several participants were willing to be interviewed although no prior arrangements were made.

7.4.4 Survey Population

This study concentrates on faculty members of the public universities only. In Malaysia, there are private universities and colleges that could have been taken into the study's consideration. Further robustness of the study could have been obtained if the survey population considered public and private higher education. Further, there are more Chinese and Indians at the private higher learning institutions as compared with public higher learning institutions.

7.4.5 Policy Analysis

This research has no intention to change the ongoing NHESP as outlaid by MOHE. The novelty of this research is to complement the existing and ongoing policies as planned and outlaid in the NHESP by MOHE. NHESP promised greater autonomy for the universities. While this increase autonomy for universities could be regarded as Malaysia's response to deal with emerging issues in higher education management and governance, the amendments to the University and University College Act, 1995 have not resolved the issue of wider autonomy from the Malaysian treasury regulation for public universities (Sirat, 2010).

Based on the research findings, the academic leadership of faculty members is important not to the individual but also to the public university's higher management. Both of them, individual and higher management, need to foresee the academic leadership will influence the faculty members' performance and further will have an impact on the public university's performance too. As such this research found that the

factors of executive, innovative and adaptive have an impact on faculty members' academic leadership. Further these factors were reflected on faculty members' work-related attitude, namely organizational commitment, career satisfaction, job satisfaction and job skills. Therefore from this finding, the higher management of public universities in Malaysia could review and revisit their existing policies and governance on faculty members in delivering their knowledge and expertise to students and community. Thus higher management could provide some additional levels of empowerment to faculty members in handling their students and classes to suit the higher educational demands from students in the classrooms and outside the classrooms. This empowerment could be associated with adaptive factors as acknowledge from the study's finding. Faculty members need to make changes and adaptive to it as they make us of the empowerment. Meanwhile faculty members' innovation in disseminating their knowledge, contribution and expertise should be recognized and regarded by the university. In some cases, public university will held various awards to recognize the effortless and contributions to their faculty members.

7.5 Limitations and Future Research

This study is based on faculty members of public universities without considering faculty members from private higher learning institutions. The inclusion of faculty members of private higher learning institutions in Malaysia allows comparison among faculty members' academic leadership and work-related attitude between public and private higher learning institutions. Further, by taking into consideration public and private universities, the findings and results can be used to generalize academia in Malaysia. In private higher institutions, the faculty members are more Chinese and Indian as compared to public higher institutions. Further, examination of respondents from public and private higher learning institutions can give a good distribution of population in terms of ethnic groups.

This study only focuses on the individual faculty members' self reporting on academic leadership and work-related attitude. It would be interesting to consider a 360 degree assessment of leaders on followers and vice versa. Further, a dyadic study between leaders of academic leadership and followers would be proposed in a future study. This can reveal a better picture of interactions and impacts of academic leadership and work-related attitude on faculty members in Malaysia.

This study heavily employs the quantitative method. Although there is a portion of qualitative method, it does not go in-depth into the world of academic leadership in the public universities in Malaysia. Future research can employ a mixed method in understanding and exploring academic leadership and work-related attitude among faculty members.

This study foresees future research on the transformational freedom to faculty members' academic leadership in the Malaysian public universities. This is obvious as one of the leading public universities in Malaysia had been awarded the status of APEX university by MOHE (Nasruddin, Bustami & Inayatullah, 2011); in which allows the awarded public university to craft their transformational freedom in academia. The transformational freedom of academia involves a process of trust building towards a shared future and, as much as possible given political constraints, including stakeholders in the scenario building and visioning process (Nasruddin et al., 2011).

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Appendix

THE UNIVERSITY OF HULL

ID No: _____   Date: _____   Time: _____

Thank you very much for participating in this process of gathering information for this special study on the public universities top management. You have been selected to participate in this study. In particular, the goal is to locate, illuminate and understand your academic leadership and work-related attitudes, namely job satisfaction, career satisfaction and organizational commitment. The information you provide in this interview will be used to contribute to my doctoral thesis at University of Hull, United Kingdom titled:

ACADEMIC LEADERSHIP AND WORK-RELATED ATTITUDES: A STUDY ON FACULTY MEMBERS OF PUBLIC UNIVERSITIES IN MALAYSIA

All comments from this will be anonymous. Names will not be attached to any of the stories, suggestions, examples or comments made. Further, the name of your organization will not be publicly released.

I will be asking you a number of questions about your experiences in the past. The questions I will ask will be focusing on your professional and personal experiences.

It may take a few moments for you to recall a story. That's fine. Do not feel rushed or pressured to come up with a grand story. There are no right answers. I will be taking notes during this interview and also may tape record it. If you have any questions about this study, I can be reached at mhasmi@hotmail.com or m.h.abu-hassan-asaari@2007.hull.ac.uk.

....
Muhammad Hasmi Abu Hassan Asaari

Professor Alan Lawton
Professor in Public Sector Management
Supervisor

Academic Leadership

1. What is your definition of academic leadership?

2. How do you measure your academic leadership?

3. What are the components of academic leadership (from your perspective)?

4. Having said of the above components, could you illuminate on:

   a. Vision

   b. Adaptable to change

   c. Competency

   d. Effective leadership

   e. Transformational style

   f. Charisma

Work-Related Attitudes

1. How do you perceive academic leadership impacts on work-related attitudes such as:

   a. Job satisfaction

   b. Career satisfaction

   c. Organizational commitment

2. How do you relate academic leadership with work-related attitudes?

Instruction: Please mark/indicate your answer.

1. Gender

	Male
	Female

2. Ethnic

	Malay
	Chinese
	Indian
	Others

Please indicate

3. Age (year-old)

	30 and under
	31-35
	36-40
	41-45
	46-50
	51-55
	56 and over

4. Marital Status

	Single
	Married
	Others

5. Academic Rank

	Lecturer
	Senior Lecturer
	Assistant Professor
	Associate Professor
	Professor

6. Academic Discipline

	Pure Sciences
	Applied Sciences
	Pure Arts
	Applied Arts

7. Leadership Training Attended (within the past 3 years)

	None
	1-3
	4-6
	7-9
	10 and over

8. Administrative Position

9. University Affiliation

10. Working Experiences (years)

Present Organization	Other Public Organizations	Private Organizations
years	years	years

Appendix 2: Proposed Appointment with Respondents

Week Date	University	Person	Contact (PA/Secretary) Time & Date	Remarks
Week 1: 2-6 August 2010	USM Penang	Professor Tan Sri Dato' Dzulkifli Abdul Razak Vice Chancellor	T: 04-6533101 (PA) F: 04-6565401 C: Pn Hjh. Zuraidah Ismail *zuraidah@notes.usm.my*	Reply via email. Email 1: 3/6/10 Reply 1: 4/6/10 Email 2: 6/6/10
	USM Penang	Professor Datin Dr. Hasnah Hj. Haron Dean Graduate School of Business	T: 04-653 2790 F: 04-653 2792 E: *hhasnah@usm.my*	Ok for an interview. Email 1: 3/6/10 Reply 1: 3/6/10 Email 2: 9/6/10
	UiTM Penang Penang	Assoc. Professor Mohd Zaki Abdullah Campus Director Penang Campus	T: 04-3822778 F: 04-3822776 E: *pengarahpng@ppinang.uitm.edu.my*	Email 1: 3/6/10 Email 2: 10/6/10 Email 3: 28/6/10
	UiTM Merbok Kedah	Zaliha Hj Hussin (Prof. Dr) Campus Director, Kedah	*drzaliha@kedah.uitm.edu.my*	Email 1: 22/6/10
	UPSI Perak	Prof Dato' Dr. Aminah Ayob Vice Chancellor	*aminahayob@upsi.edu.my*	Email 1: 28/6/10
	UPSI Perak	Profesor Dr. Abdul Jumaat bin Mahajar Dean Faculty of Business & Economics	abduljumaat@upsi.edu.my	Email 1: 29/6/10
Week 2: 9-13 August 2010	UUM Kedah	Professor Dr. Mohamed Mustafa Ishak Vice Chancellor	Siti Aizian Bt Ismail T: 04-9283001 E: *yan@uum.edu.my*	New VC wef 16/6/2010. Email 1: 3/6/10 Email 2: 10/6/10 Email 3: 24/6/10
	CAS UUM Kedah	Assoc. Professor Dr. Suhaidi Hassan Assistant Vice Chancellor	T: 604 928 3500 E: <u>suhaidi@uum.edu.my</u> *yatidan@uum.edu.my*	Email 1: 3/6/10 Email 2: 10/6/10 Email 3: 22/6/10
	COB UUM Kedah	**Prof Dr. Mahamad Tayib Assistant Vice Chancellor**	Roselina Zabedi oleen@uum.edu.my	Email 1: 22/6/10
	COLGIS UUM Kedah	Assoc Prof Dr. Asmah Laili Hj. Yeon **Assistant Vice Chancellor**	Marlina Razak *Marliena@uum.edu.my*	Email 1: 22/6/10
Week 3: 16-20 August 2010	UKM Selangor	Professor Tan Sri Dato' Dr. Sharifah Hapsah Syed Hasan Shahabudin Vice Chancellor	Tel : 03-8921 5001 / 03-8925 0399 Faks : 03-8921 4242 E-mel : *ncukm@ukm.my* Contact: *na@ukm.my* Pn Normah Adam Ketua Unit Latihan, UKM	Email 1: 3/6/10 Reply 1: 9/6/10 Email 2: 10/6/10
	Pengarah Institut Alam Sekitar dan Pembangunan (LESTARI) UKM	Professor Dr Mazlin Mokhtar Pengarah	*mazlin@ukm.my*	Email 1: 22/6/10

	UPM Selangor	Professor Datuk Dr. Nik Mustapha R. Abdullah Vice Chancellor	Pn Norizawati Ahmad Jalal E: *watty@putra.upm.edu.my* T: 03-89466001 / 6002	Email 1: 3/6/10 Email 2: 10/6/10 Email 3: 28/6/10
	UPM Selangor IKDPM	Professor Dr. Fatimah Mohamed Arshad Director **Institute of Agricultural and Food Policy Studies**	T: 03-89471076 (Pejabat Am) F: 03-89471077 E: *ikdpm@putra.upm.edu.my* *mafatimah@gmail.com*	Need to reconfirm. Email 1: 3/6/10 Email 2: 10/6/10 Reply 2: 10/6/10 Email 2: 11/6/10
Week 4: 23-27 August 2010	UMP Pahang	Professor Dato' Dr. Mohd Daing Nasir Daing Ibrahim Vice Chancellor	E: *daing@ump.edu.my* T: 09-549 2602 **Nooraziah Abdul Ghaffar** (SU) Email : *nooraziah@ump.edu.my* No Tel: 09-549 2602	Email 1: 3/6/10 Email 2: 10/6/10
	UMP Pahang	Professor Dr Yusserie Zainuddin Dean Centre for Graduate Studies	T: 09-549 2017 F: 09-549 2662 E: *yuserrie@ump.edu.my*	Ok for an interview. Email 1: 3/6/10 Reply 1: 4/6/10 Email 2: 9/6/10

Appendix 3: Interview Fieldwork

Week/Date	Respondent	University
Week 1 2-6 August 2010	Associate Professor Dr. Mustafa Farid Wajidi Associate Professor Omar Majid Dr. Che Supian Mohamad Dr. Zulnaidi Yaacob	1
Week 2 1-13 August 2010	Associate Professor Dr. Misni Surif Dr. Norziani Dahalan Dr. Khairiah Salwa Mokhtar Associate Professor Dr. Ahmad Hj. Mohamad Professor Dr. Rozhan Mohammed Idrus Professor Dr. Roshada Ibrahim	1
Week 3 16-20 August 2010	Professor Dr. Ahmad Shukri Mustafa Kamal	1
Week 4 23-27 August 2010	Professor Dr. Rosni Abdullah Associate Professor Dato' Dr. Ishak Ismail Associate Professor Dr. Sofri Yahya Associate Professor Dr. Adnan Hussein	1

CONDITIONS FOR USE OF SHORTENED VERSION OF THE TRANSFORMATIONAL LEADERSHIP QUESTIONNAIRE (TLQ)™ FOR RESEARCH PURPOSES ONLY

Dear Colleague

Thank you for your request to use the Shortened Version of the *Transformational Leadership Questionnaire (TLQ)™* in connection with your research.
We are pleased to learn of your interest in the *TLQ* and are happy, in principle, to agree to its use, subject to the following conditions:

1. that you let us know in writing the name of the qualification for which you are studying, along with the proposed title and/or a brief outline of the investigation, the name of the university or college, and the name of your supervising tutor;
2. that you send a letter on university headed paper, jointly signed by you **and your supervisor**, stating:
    • that the *TLQ* will be used exclusively for research purposes in connection with the award referred to above and not for any other purpose(s);
    • that the Intellectual Property of the *TLQ* as resting with Real World Group, and integrity of the *TLQ* will be protected at all times;
    • that the *TLQ* items will not be published in full, and that the dissertation will only give a maximum of two examples to illustrate each of the scales;
    • that any publication of the research findings in an academic or professional journal or conference presentation will only include (as a maximum) the same two examples as in the dissertation;
    • that Real World Group (which can be abbreviated to RWG) will be fully acknowledged as the source of the *TLQ*;
    • that the results will be communicated to RWG as soon as is practicable.
    • That a copy of the data relating to the *TLQ* will be forwarded to RWG on completion of the research project to enable RWG to maintain its data base, and up-date its norms
    • That you send a £50 cheque made payable to Real World Group as a deposit for the data; this will be returned to you on receipt of RWG receiving the data.

I look forward to hearing from you, and good luck with your research.
Yours sincerely
Margaret Bradley
Senior Research Psychologist

THE UNIVERSITY OF HULL
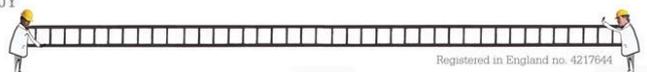
Academic Leadership and Work-Related Attitude

1. Introduction

Thank you very much for participating in this process of gathering information for this special study on faculty members in the public universities in Malaysia. In particular, the goal is to locate, illuminate and understand your academic leadership and work-related attitude, namely job satisfaction, career satisfaction and organizational commitment. The information you provide will be used to contribute to my doctoral thesis at the University of Hull, United Kingdom titled:

ACADEMIC LEADERSHIP AND WORK-RELATED ATTITUDE: A STUDY ON FACULTY MEMBERS OF PUBLIC UNIVERSITIES IN MALAYSIA

Your participation is voluntary and highly regarded. There is no right or wrong answers. All information will be held in the strictest confidence, as has always been the policy of the university. This survey has been approved by the Ministry of Higher Education Malaysia (Ref. KPT.R.620-1/1/1 Jld.15(13) dated 16 June 2010), Economic Planning Unit of Prime Minister's Department (Ref.UPE:40/200/19/2653 dated 14 June 2010) and Business School of University of Hull, United Kingdom.

The survey takes about 20-30 minutes to complete. I am aware that you are very busy and undoubtedly, this has taken much of your time. However, your participation is very much important to meet with the objectives of this study.

Many thanks for your valuable time and effort in completing this survey. Your participation and assistance are highly appreciated in making this study successful. If you have any questions regarding this study, I can be reached at mhasmi@hotmail.com or m.h.abu-hassan-asaari@2007.hull.ac.uk.

Yours sincerely,
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Academic Leadership and Work-Related Attitude

2. Part A: Please TICK the answer that indicates your AGREEMENT with the following statements.

		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	I do make motivational talks to stimulate members.	1	2	3	4	5
2	I do wait patiently for the results of a decision.	1	2	3	4	5
3	I am able to handle complex problems.	1	2	3	4	5
4	I allow members a complete freedom in their work.	1	2	3	4	5
5	I let members know what are expected of them.	1	2	3	4	5
6	I act as the spokesman of members.	1	2	3	4	5
7	I put convincing arguments among members.	1	2	3	4	5
8	I become anxious when I cannot find out what is coming next.	1	2	3	4	5
9	I am managing based on the available information.	1	2	3	4	5
10	I permit members to use their own judgment in solving problems.	1	2	3	4	5

Academic Leadership and Work-Related Attitude

3. Part A: Please TICK the answer that indicates your AGREEMENT with the following statements.

		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	I do encourage the use of work procedures.	1	2	3	4	5
2	I let others know about the members' activities.	1	2	3	4	5
3	I do influence members on my point of view.	1	2	3	4	5
4	I can accept defeat in a calm way.	1	2	3	4	5
5	I do get my works organized.	1	2	3	4	5
6	I do encourage idea contributions by members.	1	2	3	4	5
7	I do share my ideas among members.	1	2	3	4	5
8	I do speak as a representative of members.	1	2	3	4	5
9	I am a very persuasive talker.	1	2	3	4	5
10	I can accept delays without becoming upset.	1	2	3	4	5

Academic Leadership and Work-Related Attitude

4. Part A: Please TICK the answer that indicates your AGREEMENT with the following statements.

		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	I can reduce a madhouse to system and order.	1	2	3	4	5
2	I do let members to work the way they think best.	1	2	3	4	5
3	I do make my attitudes clear to members.	1	2	3	4	5
4	I do speak for members when visitors are present.	1	2	3	4	5
5	I am very skilful in an argument.	1	2	3	4	5
6	I become anxious when waiting for new developments.	1	2	3	4	5
7	I am manageable when too many demands are made of me.	1	2	3	4	5
8	I do assign a task for members to handle.	1	2	3	4	5
9	I do decide what and how shall the job be done.	1	2	3	4	5
10	I do represent members at outside meetings.	1	2	3	4	5

Academic Leadership and Work-Related Attitude

5. Part A: Please TICK the answer that indicates your AGREEMENT with the following statements.

		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	I am a convincing talker.	1	2	3	4	5
2	I am able to tolerate postponement and uncertainty.	1	2	3	4	5
3	I allow members to do the job with minimal supervision.	1	2	3	4	5
4	I do assign members to particular tasks.	1	2	3	4	5
5	I do speak with a strong inner confidence.	1	2	3	4	5
6	I am patient to wait for an outcome.	1	2	3	4	5
7	I do allow members any freedom of action.	1	2	3	4	5
8	I do make sure that my part among members is understood.	1	2	3	4	5
9	I do inspire members through talking.	1	2	3	4	5
10	I do remain calm in facing uncertain situations.	1	2	3	4	5

Academic Leadership and Work-Related Attitude

6. Part A: Please TICK the answer that indicates your AGREEMENT with the following statements.

		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	I do allow members a high degree of initiative.	1	2	3	4	5
2	I do encourage members to exercise good judgment.	1	2	3	4	5
3	I do schedule the work to be done.	1	2	3	4	5
4	I do persuade members to accept my ideas.	1	2	3	4	5
5	I am able to delay action until the proper time.	1	2	3	4	5
6	I do maintain standards of performance on members.	1	2	3	4	5
7	I can inspire enthusiasm among members on a project.	1	2	3	4	5
8	I am positive about the outcome of any new procedure.	1	2	3	4	5
9	I do allow members to set their own pace.	1	2	3	4	5
10	I do ask members to follow rules and regulations.	1	2	3	4	5

Academic Leadership and Work-Related Attitude

7. Part B: Please TICK the answer that indicates your SATISFACTION with the following statements.

		Very Unsatisfied	Unsatisfied	Not Sure	Satisfied	Very Satisfied
1	I am satisfied the way I handle my colleagues.	1	2	3	4	5
2	I am satisfied on my competence in making decision.	1	2	3	4	5
3	I am satisfied that my job provides me a steady employment.	1	2	3	4	5
4	I am satisfied having the chance to tell people what to do.	1	2	3	4	5
5	I am satisfied having the chance to do something that makes use of my abilities.	1	2	3	4	5
6	I am satisfied with the amount of pay received.	1	2	3	4	5
7	I am satisfied with the amount of work I do.	1	2	3	4	5
8	I am satisfied with the chances for advancement of this job.	1	2	3	4	5
9	I am satisfied with the working conditions.	1	2	3	4	5
10	I am satisfied with the feelings of accomplishment I get from the job.	1	2	3	4	5

Academic Leadership and Work-Related Attitude

8. Part B: Please TICK the answer that indicates your SATISFACTION with the following statements.

		Very Unsatisfied	Unsatisfied	Not Sure	Satisfied	Very Satisfied
1	I am satisfied with the success I have achieved in my career.	1	2	3	4	5
2	I am satisfied with the progress I have made toward achieving my overall career goals.	1	2	3	4	5
3	I am satisfied with the opportunity to develop my skills.	1	2	3	4	5
4	I am satisfied with the utilization of my skills.	1	2	3	4	5
5	I am satisfied with my quite high quality of work.	1	2	3	4	5

Academic Leadership and Work-Related Attitude

9. Part B: Please TICK the answer that indicates your AGREEMENT with the following statements.

		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	I am willing to put in a greatest deal of effort beyond that normally expected in order to help this organization be successful.	1	2	3	4	5
2	I talk up this organization to my friends as a great organization to work for.	1	2	3	4	5
3	I feel very loyal to this organization.	1	2	3	4	5
4	I would accept almost any type of job assignment in order to keep working for this organization.	1	2	3	4	5
5	I find that my values and the organization's values are very similar.	1	2	3	4	5
6	I am proud to tell others that I am part of this organization.	1	2	3	4	5
7	This organization really inspires the very best in me in the way of job performance.	1	2	3	4	5
8	I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.	1	2	3	4	5
9	I really care about the fate of this organization.	1	2	3	4	5
10	For me, this is the best of all possible organization for which to work.	1	2	3	4	5

Academic Leadership and Work-Related Attitude

10. Part C: Please TICK and/or INDICATE the answer.

1. Gender

	Male
	Female

2. Ethnic

	Malay	
	Chinese	
	Indian	
	Others	(Please Specify):

3. Agen (years-old)

	30 and under
	31-35
	36-40
	41-45
	46-50
	51-55
	56 and over

4. Marital Status

	Single	
	Married	
	Others	(Please Specify):

5. Academic Rank

	Lecturer	
	Senior Lecturer	
	Assistant Professor	
	Associate Professor	
	Professor	
	Others	(Please Specify):

6. Highest Academic Qualification

	Bachelor	
	Master	
	Doctorate	
	Others	(Please Specify):

7. Academic Discipline

	Pure Sciences
	Applied Sciences
	Pure Arts
	Applied Arts

8. Leadership Training Attended (within the past 3 years)

	None

	1-3
	4-6
	7-9
	10 and over

9. Administrative Position

	No Position
	Programme Chairperson
	Deputy Director
	Deputy Dean
	Director
	Dean
	Deputy Vice Chancellor
	Vice Chancellor
	Others (Please Specify):

10. Research/Consultancy Involvement

	None
	Individual
	Group
	Both, individual & group

11. If you are involved in a Research/Consultancy Group, what is your position in the group?

	Not Applicable
	Member
	Leader
	Others (Please Specify):

12. Working Experience (indicate number of years)

Present Organization	
Other Public Organizations	
Private Organizations	

13. University Affiliation

	Universiti Sains Malaysia (USM)
	Universiti Malaya (UM)
	Universiti Putra Malaysia (UPM)
	Universiti Kebangsaan Malaysia (UKM)
	Universiti Pendidikan Sultan Idris (UPSI)
	Universiti Utara Malaysia (UUM)
	Universiti Teknologi Malaysia (UTM)
	Universiti Teknologi MARA (UiTM)
	Universiti Islam Antarabangsa Malaysia (IIUM)
	Universiti Malaysia Sabah (UMS)
	Universiti Malaysia Sarawak (UNIMAS)
	Universiti Malaysia Kelantan (UMK)
	Universiti Malaysia Perlis (UniMAP)
	Universiti Malaysia Pahang (UMP)
	Universiti Malaysia Terengganu (UMT)
	Universiti Tun Hussein Onn Malaysia (UTHM)
	Universiti Sultan Zainal Abidin (UniSZA)
	Universiti Pertahanan Nasional Malaysia (UPNM)
	Universiti Sains Islam Malaysia (USIM)
	Universiti Teknikal Malaysia Melaka (UTeM)

Appendix 6: Codebook Academic Leadership and Work-Related Attitude

SPSS Variable Name	Variable	Coding Instructions
ID	Identification Number	Number assigned to each survey
VAR01	(VY1) I do make motivational talks to stimulate members	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR02	(AC1) I do wait patiently for the results of a decision	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR03	(CY1) I am able to handle complex problems	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR04	(EL1) I allow members a complete freedom in their work	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR05	(TL1) I let members know what are expected of them	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR06	(CH1) I act as the spokesman of members	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR07	(VY2) I put convincing arguments among members	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR08	(AC2) I become anxious when I cannot find out what is coming next	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR09	(CY2) I am managing based o the available information	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR10	(EL2) I permit members to use their own judgement in solving problems	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR11	(TL2) I do encourage the use of work procedures	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR12	(CH2) I let others know about the members' activities	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR13	(VY3) I do influence members on my point of view	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR14	(AC3) I can accept defeat in a calm way	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR15	(CY3) I do get my works organized	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR16	(EL3) I do encourage idea contributions by members	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR17	(TL3) I do share my ideas among members	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR18	(CH3) I do speak as a representative of members	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR19	(VY4) I am a very persuasive talker	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR20	(AC4) I can accept delays without being upset	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)

VAR21	(CY4) I can reduce mad house to system and order	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR22	(EL4) I do let members to work the way they think best	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR23	(TL4) I do make my attitudes clear to members	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR24	(CH4) I do speak for members when visitors are present	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR25	(VY5) I am very skilful in an argument	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR26	(AC5) I become anxious when waiting for new developments	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR27	(CY5) I am manageable when too many demands are made of me	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR28	(EL5) I do assign a task for members to handle	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR29	(TL5) I do decide what and how shall the job be done	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR30	(CH5) I do represent members at outside meetings	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR31	(VY6) I am a convincing talker	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR32	(AC6) I am able to tolerate postponement and uncertainty	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR33	(EL6) I allow members to do the job with minimal supervision	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR34	(EL7) I do assign members to particular tasks	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR35	(VY7) I do speak with a strong inner confidence	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR36	(AC7) I am patient to wait for an outcome	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR37	(EL7) I do allow members any freedom of action	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR38	(TL7) I do make sure that my part among members is understood	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR39	(VY8) I do inspire members through talking	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR40	(AC8) I do remain calm in facing uncertain situations	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR41	(EL8) I do allow members a high degree of initiative	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR42	(EL9)	Enter the number circled from

	I do encourage members to exercise good judgment	1 (strongly disagree) to 5 (strongly agree)
VAR43	(TL8) I do schedule the work to be done	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR44	(VY9) I do persuade members to accept my ideas	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR45	(AC9) I am able to delay action until the proper time	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR46	(TL9) I do maintain standards of performance on members	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR47	(VY10) I can inspire enthusiasm among members on a project	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR48	(AC10) I am positive about the outcome of any new procedure	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR49	(EL10) I do allow member to set their own pace	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR50	(TL10) I do ask member to follow rules and regulations	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR51	(JS1) I am satisfied the way I handle my colleagues	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR52	(JS2) I am satisfied on my competence in making decision	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR53	(JS3) I am satisfied that my job provides me a steady employment	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR54	(JS4) I am satisfied having the chance to tell people what to do	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR55	(JS5) I am satisfied having the change to do something that makes use of my abilities	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR56	(JS6) I am satisfied with the amount of pay received	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR57	(JS7) I am satisfied with the amount of work I do	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR58	(JS8) I am satisfied with the chances for advancement of this job	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR59	(JS9) I am satisfied with the working conditions	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR60	(JS 10) I am satisfied with the feeling of accomplishment I get from the job	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR61	(CS1) I am satisfied with the success I have achieved in my career	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR62	(CS2) I am satisfied with the progress I	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)

		have made toward achieving my overall career goals	
VAR63	(CS3) I am satisfied with the opportunity to develop my skills	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR64	(CS4) I am satisfied with the utilization of my skills	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR65	(CS5) I am satisfied with my quite high quality of work	Enter the number circled from 1 (very unsatisfied) to 5 (very satisfied)
VAR66	(OC1) I am willing to put in a greatest deal of effort beyond that normally expected in order to help this organization be successful	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR67	(OC2) I talk up this organization to my friends as a great organization to work for	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR68	(OC3) I feel very loyal to this organization	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR69	(OC4) I would accept almost any type of job assignment in order to keep working for this organization	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR70	(OC5) I find that my values and the organization's values are very similar	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR71	(OC6) I am proud to tell others that I am part of this organization	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR72	(OC7) This organization really inspires the very best in me in the way of job performance	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR73	(OC8) I am extremely glad that I chose this organization to work for over others I was considering at the time I joined	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR74	(OC9) I really care about the fate of this organization	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR75	(OC10) For me, this is the best of all possible organization for which to work	Enter the number circled from 1 (strongly disagree) to 5 (strongly agree)
VAR76	Gender	1=Male 2=Female
VAR77	Ethnic	1=Malays 2=Chinese 3=Indian 4=Others
VAR78	Ethnic others	Open-ended
VAR79	Age (years old)	1=30 and under 2=31-35 3=36-40 4=41-45 5=46-50

		6=51-55
		7=56 and over
VAR80	Marital status	1=Single
		2=Married
		3=Others
VAR81	Marital status others	Open-ended
VAR82	Academic rank	1=Lecturer
		2=Senior lecturer
		3=Assistant professor
		4=Associate professor
		5=Professor
		6=Others
VAR83	Academic rank others	Open-ended
VAR84	Highest academic qualification	1=Bachelor
		2=Master
		3=Doctorate
		4=Others
VAR85	Highest academic qualification others	Open-ended
VAR86	Academic discipline	1=Pure sciences
		2=Applied sciences
		3=Pure arts
		4=Applied arts
VAR87	Leadership training attended (within the past 3 years)	1=None
		2=1-3
		3=4-6
		4=10 and above
VAR88	Administrative position	1=No position
		2=Programme chairperson
		3=Deputy director
		4=Deputy dean
		5=Director
		6=Dean
		7=Deputy vice chancellor
		8=Vice chancellor
		9=Others
VAR89	Administrative position others	Open-ended
VAR90	Research/consultancy involvement	1=None
		2=Individual
		3=Group
		4=Both, individual & group
VAR91	If you are involved in a research/consultancy group, what is your position in the group?	1=Not applicable
		2=Member
		3=Leader
		4=Others
VAR92	Position in group; others	Open-ended
VAR93	Present organization: Working experiences (years)	Enter the number
VAR94	Other public organizations: Working experiences (years)	Enter the number
VAR95	Private organizations: Working experiences (years)	Enter the number
VAR96	University affiliation	1=Universiti Sains Malaysia
		2=Universiti Malaya
		3=Universiti Putra Malaysia
		4=Universiti Kebangsaan Malaysia
		5=Universiti Pendidikan Sultan Idris
		6=Universiti Utara Malaysia
		7=Universiti Teknologi Malaysia
		8=Universiti Teknologi MARA
		9=Universiti Islam Antarabangsa Malaysia
		10=Universiti Malaysia Sabah

		11=Universiti Malaysia Sarawak 12=Universiti Malaysia Kelantan 13=Universiti Malaysia Perlis 14=Universiti Malaysia Pahang 15=Universiti Malaysia Terengganu 16=Universiti Tun Hussein Onn Malaysia 17=Universiti Sultan Zainal Abidin 18=Universiti Pertahanan Nasional Malaysia 19=Universiti Sains Islam Malaysia 20=Universiti Teknikal Malaysia Melaka
VAR100	Visionary	COMPUTE VY=(VAR1 + VAR7 + VAR13 + VAR19 + VAR25 + VAR31 + VAR35 + VAR39 + VAR44 + VAR47) / 10
VAR101	Adaptable to Change	COMPUTE AC=(VAR2 + VAR8 + VAR14 + VAR20 + VAR26 + VAR32 + VAR36 + VAR40 + VAR45 + VAR48) / 10
VAR102	Competency	COMPUTE CY=(VAR3 + VAR9 + VAR15 + VAR21 + VAR27) / 5
VAR103	Effective Leadership	COMPUTE EL=(VAR4 + VAR10 + VAR16 + VAR22 + VAR28 + VAR33 + VAR37 + VAR41 + VAR42 + VAR49) / 10
VAR104	Transformational Leadership	COMPUTE TL=(VAR5 + VAR11 + VAR17 + VAR23 + VAR29 + VAR34 + VAR38 + VAR43 + VAR46 + VAR50) / 10
VAR105	Charisma	COMPUTE CH=(VAR6 + VAR12 + VAR18 + VAR24 + VAR30) / 5
VAR106	Job Satisfaction	COMPUTE JS=(VAR51 + VAR52 + VAR53 + VAR54 + VAR55 + VAR56 + VAR57 + VAR58 + VAR59 + VAR60) / 10
VAR107	Career Satisfaction	COMPUTE CS=(VAR61 + VAR62 + VAR63 + VAR64 + VAR65) / 5
VAR108	Organizational Commitment	COMPUTE OC=(VAR66 + VAR67 + VAR68 + VAR69 + VAR70 + VAR71 + VAR72 + VAR73 + VAR74 + VAR75) / 10
VAR109	Total Academic Leadership	COMPUTE ACLS=(VY + AC + CY + EL + TL + CH) / 6
VAR110	Total Work-Related Attitude	COMPUTE WRA=(JS + CS + OC) / 3
VAR111	Transformational Leadership (omit VAR29: TL5)	COMPUTE TLlessTL5=(VAR5 + VAR11 + VAR17 + VAR23 + VAR34 + VAR38 + VAR43 + VAR46 + VAR50) / 9
VAR112	Innovative	COMPUTE INNOVATIVE=(VAR6 + VAR18 + VAR24 + VAR30 + VAR3 + VAR21 + VAR27 + VAR34 + VAR1 + VAR47 + VAR7 + VAR13 + VAR19 + VAR25 + VAR31 + VAR35 + VAR39 + VAR44) / 18
VAR113	Effective	COMPUTE EFFECTIVE=(VAR4 + VAR49 + VAR10 + VAR16 + VAR22 + VAR28 + VAR33 + VAR37 + VAR41 + VAR42) / 10
VAR114	Executive	COMPUTE EXECUTIVE=(VAR12 + VAR15 + VAR5 + VAR50 + VAR11 + VAR17 + VAR23 + VAR38 + VAR43 + VAR46) / 10
VAR115	Adaptive	COMPUTE ADAPTIVE=(VAR2 + VAR48 + VAR8 + VAR14 + VAR20 + VAR26 + VAR32 + VAR36 + VAR39 + VAR45 + VAR9) / 11
VAR116	Organizational Commitment	COMPUTE ORGCOM=(VAR66 + VAR67 + VAR68 + VAR69 + VAR70 + VAR71 + VAR72 + VAR73 + VAR74 + VAR75) / 10
VAR117	Career Satisfaction	COMPUTE CARSAT=(VAR61 + VAR62 + VAR63 + VAR64 + VAR65) / 5
VAR118	Job Satisfaction	COMPUTE JOBSAT=(VAR56 + VAR57 + VAR58 + VAR59 + VAR60) / 5

VAR119	Job Skills	COMPUTE JOBSKL=(VAR52 + VAR51 + VAR53 + VAR54 + VAR55) / 5
VAR120	Ivf4-adaptive after drop AC2, AC5 and CY2	COMPUTE ivf_adaptive_drop3=(VAR2 + VAR14 + VAR20 + VAR32 + VAR36 + VAR40 + VAR45 + VAR48) / 8
VAR121	Total-ivf-acls after drop AC2, AC5 and Cy2	COMPUTE total_ivf_drop3=(ivf1_innovative + ivf2_effective + ifv3_executive + ivf_adaptive_drop3) / 4
VAR122	Total Academic Leadership (after FA)	COMPUTE total_ivf_acls=(ivf1_innovative + ivf2_effective + ifv3_executive + ivf4_adaptive) / 4
VAR123	Total Work-Related Attitude (after FA)	COMPUTE total_dvf_wra=(dvf1_orgcom + dvf2_carsat + dvf3_jobsat + dvf4_jobskill) / 4

Note:
VY = Visionary
AC = Adaptable to change
CY = Competency
EL = Effective leadership
TL = Transformational leadership
CH = Charisma
JS = Job Satisfaction
CS = Career Satisfaction
OC = Organizational Commitment

Visionary

CODE	Q.NO	QUESTION
VY1	1	I do make motivational talks to stimulate members.
VY2	7	I put convincing arguments among members.
VY3	13	I do influence members on my point of view.
VY4	19	I am a very persuasive talker.
VY5	25	I am very skilful in an argument.
VY6	31	I am a convincing talker.
VY7	35	I do speak with a strong inner confidence.
VY8	39	I do inspire members through talking.
VY9	44	I do persuade members to accept my ideas.
VY10	47	I can inspire enthusiasm among members on a project.

Adaptable to Change

CODE	Q.NO	QUESTION
AC1	2	I do wait patiently for the results of a decision.
AC2	8	I become anxious when I cannot find out what is coming next.
AC3	14	I can accept defeat in a calm way.
AC4	20	I can accept delays without becoming upset.
AC5	26	I become anxious when waiting for new developments.
AC6	32	I am able to tolerate postponement and uncertainty.
AC7	36	I am patient to wait for an outcome.
AC8	40	I do remain calm in facing uncertain situations.
AC9	45	I am able to delay action until the proper time.
AC10	48	I am positive about the outcome of any new procedure.

Competency

CODE	Q.NO	QUESTION
CY1	3	I am able to handle complex problems.
CY2	9	I am managing based on the available information.
CY3	15	I do get my works organized.
CY4	21	I can reduce a madhouse to system and order.
CY5	27	I am manageable when too many demands are made of me.

Effective Leadership

CODE	Q.NO	QUESTION
EL1	4	I allow members a complete freedom in their work.
EL2	10	I permit members to use their own judgment in solving problems.
EL3	16	I do encourage idea contributions by members.
EL4	22	I do let members to work the way they think best.
EL5	28	I do assign a task for members to handle.
EL6	33	I allow members to do the job with minimal supervision.

EL7	37	I do allow members any freedom of action.
EL8	41	I do allow members a high degree of initiative.
EL9	42	I do encourage members to exercise good judgment.
EL10	49	I do allow members to set their own pace.

Transformational Leadership

CODE	Q.NO	QUESTION
TL1	5	I let members know what is expected of them.
TL2	11	I do encourage the use of work procedures.
TL3	17	I do share my ideas among members.
TL4	23	I do make my attitudes clear to members.
TL5	29	I do decide what and how shall the job be done.
TL6	34	I do assign members to particular tasks.
TL7	38	I do make sure that my part among members is understood.
TL8	43	I do schedule the work to be done.
TL9	46	I do maintain standards of performance on members.
TL10	50	I do ask members to follow rules and regulations.

Charisma

CODE	Q.NO	QUESTION
CH1	6	I act as the spokesman of members.
CH2	12	I let others know about the members' activities.
CH3	18	I do speak as a representative of members.
CH4	24	I do speak for members when visitors are present.
CH5	30	I do represent members at outside meetings.

Job Satisfaction

CODE	Q.NO	QUESTION
JS1	51	I am satisfied the way I handle my colleagues.
JS2	52	I am satisfied on my competence in making decision.
JS3	53	I am satisfied that my job provides me a steady employment.
JS4	54	I am satisfied having the chance to tell people what to do.
JS5	55	I am satisfied having the chance to do something that makes use of my abilities.
JS6	56	I am satisfied with the amount of pay received.
JS7	57	I am satisfied with the amount of work I do.
JS8	58	I am satisfied with the chances for advancement of this job.
JS9	59	I am satisfied with the working conditions.
JS10	60	I am satisfied with the feelings of accomplishment I get from the job.

Career Satisfaction

CODE	Q.NO	QUESTION
CS1	61	I am satisfied with the success I have achieved in my career.
CS2	62	I am satisfied with the progress I have made toward achieving my overall career goals.
CS3	63	I am satisfied with the opportunity to develop my skills.
CS4	64	I am satisfied with the utilization of my skills.
CS5	65	I am satisfied with my quite high quality of work.

Organizational Commitment

CODE	Q.NO	QUESTION
OC1	66	I am willing to put in a greatest deal of effort beyond that normally expected in order to help this organization be successful.
OC2	67	I talk up this organization to my friends as a great organization to work for.
OC3	68	I feel very loyal to this organization.
OC4	69	I would accept almost any type of job assignment in order to keep working for this organization.
OC5	70	I find that my values and the organization's values are very similar.
OC6	71	I am proud to tell others that I am part of this organization.
OC7	72	This organization really inspires the very best in me in the way of job performance.
OC8	73	I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.
OC9	74	I really care about the fate of this organization.
OC10	75	For me, this is the best of all possible organization for which to work.

Note:

VY = Visionary   JS = Job satisfaction
AC = Adaptable to change   CS = Career satisfaction
CY = Competency   OC = Organizational commitment
EL = Effective leadership
TL = Transformational leadership
CH = Charisma

Appendix 8: Test of Normality

VISIONARY	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
(VY1) I do make motivational talks to stimulate members	.356	260	.000	.761	260	.000
(VY2) I put convincing arguments among members	.367	260	.000	.769	260	.000
(VY3) I do influence members on my point of view	.343	258	.000	.804	258	.000
(VY4) I am a very persuasive talker	.246	257	.000	.870	257	.000
(VY5) I am very skilful in an argument	.225	260	.000	.869	260	.000
(VY6) I am a convincing talker	.236	259	.000	.866	259	.000
(VY7) I do speak with a strong inner confidence	.330	259	.000	.763	259	.000
(VY8) I do inspire members through talking	.315	259	.000	.770	259	.000
(VY9) I do schedule the work to be done	.292	261	.000	.827	261	.000
(VY10) I can inspire enthusiasm among members on a project	.335	261	.000	.759	261	.000

ADAPTABLE TO CHANGE	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
(AC1) I do wait patiently for the results of a decision	.378	261	.000	.761	261	.000
(AC2) I become anxious when I cannot find out what is coming next	.339	261	.000	.810	261	.000
(AC3) I can accept defeat in a calm way	.366	257	.000	.767	257	.000
(AC4) I can accept delays without being upset	.261	258	.000	.755	258	.000
(AC5) I become anxious when waiting for new developments	.321	260	.000	.827	260	.000
(AC6) I am able to tolerate postponement and uncertainty	.303	260	.000	.811	260	.000
(AC7) I am patient to wait for an outcome	.386	258	.000	.746	258	.000
(AC8) I do remain calm in facing uncertain situations	.359	258	.000	.785	258	.000
(AC9) I am able to delay action until the proper time	.370	261	.000	.765	261	.000
(AC10) I am positive about the outcome of any new procedure	.353	260	.000	.730	260	.000

COMPETENCY	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
(CY1) I am able to handle complex problems	.341	259	.000	.742	259	.000
(CY2) I am managing based on the information available	.359	261	.000	.755	261	.000
(CY3) I do get my works organized	.335	256	.000	.757	256	.000
(CY4) I can reduce mad house to system and order	.276	260	.000	.831	260	.000
(CY5) I am manageable when too many demands are made of me	.366	260	.000	.774	260	.000

EFFECTIVE LEADERSHIP	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
(EL1) I allow members a complete freedom in their work	.295	261	.000	.787	261	.000
(EL2) I permit members to use their own judgement in solving problems	.372	258	.000	.721	258	.000
(EL3) I do encourage idea contributions by members	.364	255	.000	.634	255	.000
(EL4) I do let members to work the way they think best	.366	260	.000	.727	260	.000
(EL5) I do assign a task for members to handle	.348	259	.000	.736	259	.000
(EL6) I allow members to do the job with minimal supervision	.403	259	.000	.644	259	.000
(EL7) I do allow members any freedom of action	.360	258	.000	.713	258	.000
(EL8) I do allow members a high degree of initiative	.403	261	.000	.680	261	.000
(EL9) I do encourage members to exercise good judgment	.422	261	.000	.648	261	.000
(EL10) I do allow members to set their own pace	.374	261	.000	.762	261	.000

TRANSFORMATIONAL LEADERSHIP	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
(TL1) I let members know what are expected of them	.375	261	.000	.715	261	.000
(TL2) I do encourage the use of work procedures	.338	258	.000	.728	258	.000
(TL3) I do share my ideas among members	.354	257	.000	.695	257	.000
(TL4) I do make my attitudes clear to members	.393	259	.000	.688	259	.000
(TL5) I do decide what and how shall the job be done	.366	259	.000	.776	259	.000
(TL6) I do assign members to particular tasks	.395	259	.000	.669	259	.000
(TL7) I do make sure that my part among members is understood	.423	260	.000	.634	260	.000
(TL8) I do schedule the work to be done	.378	260	.000	.708	260	.000
(TL9) I do maintain standards of performance on members	.354	261	.000	.717	261	.000
(TL10) I do ask member to follow rules and regulations	.354	259	.000	.742	259	.000

CHARISMA	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
(CH1) I act as the spokesman of members	.264	260	.000	.865	260	.000
(CH2) I let others know about the members' activities	.352	258	.000	.783	258	.000
(CH3) I do speak as a representative of members	.313	255	.000	.834	255	.000
(CH4) I do speak for members when visitors are present	.319	260	.000	.828	260	.000
(CH5) I do represent members at outside meetings	.335	259	.000	.812	259	.000

JOB SATISFACTION	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
(JS1) I am satisfied the way I handle my colleagues	.381	261	.000	.754	261	.000
(JS2) I am satisfied on my competence in making decision	.369	261	.000	.706	261	.000
(JS3) I am satisfied that my job provides me a steady employment	.331	261	.000	.763	261	.000
(JS4) I am satisfied having the chance to tell people what to do	.329	259	.000	.820	259	.000
(JS5) I am satisfied having the change to do something that makes use of my abilities	.322	260	.000	.767	260	.000
(JS6) I am satisfied with the amount of pay received	.312	260	.000	.849	260	.000
(JS7) I am satisfied with the amount of work I do	.360	260	.000	.784	260	.000
(JS8) I am satisfied with the chances for advancement of this job	.332	260	.000	.817	260	.000
(JS9) I am satisfied with the working conditions	.348	259	.000	.798	259	.000
(JS10) I am satisfied with the feeling of accomplishment I get from the job	.342	259	.000	.791	259	.000

CAREER SATISFACTION	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
(CS1) I am satisfied with the success I have achieved in my career	.324	259	.000	.809	259	.000
(CS2) I am satisfied with the progress I have made toward achieving my overall career goals	.314	259	.000	.818	259	.000
(CS3) I am satisfied with the opportunity to develop my skills	.345	259	.000	.790	259	.000
(CS4) I am satisfied with the utilization of my skills	.317	257	.000	.826	257	.000
(CS5) I am satisfied with my quite high quality of work	.308	259	.000	.833	259	.000

ORGANIZATIONAL COMMITMENT	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
(OC1) I am willing to put in a greatest del of effort beyond that normally expected in order to help this organization be successful	.297	257	.000	.778	257	.000
(OC2) I talk up this organization to my friends as a great organization to work for	.316	257	.000	.830	257	.000
(OC3) I feel very loyal to this organization	.274	257	.000	.834	257	.000
(OC4) I would accept almost any type of job assignment in order to keep working for this organization	.254	257	.000	.865	257	.000
(OC5) I find that my values and the organization's values are very similar	.270	257	.000	.856	257	.000
(OC6) I am proud to tell others that I am part of this organization	.273	256	.000	.831	256	.000
(OC7) This organization really inspires the very best in me in the way of job performance	.277	257	.000	.857	257	.000
(OC8) I am extremely glad that I chose this organization to work for over others I was considering at the time I joined	.306	254	.000	.829	254	.000
(OC9) I really care about the fate of this organization	.282	257	.000	.789	257	.000
(OC10) For me, this is the best of all possible organization for which to work	.237	253	.000	.869	253	.000

Appendix 9: Justification for Outliers of Variables

Item	Mean	5% Trimmed Mean	Difference	Difference Rounded
VY1	3.9078	3.9759	0.0681	0.07
AC1	3.6542	3.6827	0.0285	0.03
CY1	3.9247	3.9734	0.0487	0.05
EL1	3.8333	3.8817	0.0484	0.05
TL1	4.1843	4.2351	0.0508	0.05
CH1	3.4793	3.5038	0.0245	0.02
VY2	3.8247	3.8685	0.0438	0.04
AC2	3.7423	3.7806	0.0383	0.04
CY2	3.9249	3.9835	0.0586	0.06
EL2	4.0692	4.1440	0.0748	0.07
TL2	4.0877	4.1598	0.0721	0.07
CH2	3.8445	3.8946	0.0501	0.05
VY3	3.5684	3.5916	0.0232	0.02
AC3	3.8445	3.8946	0.0501	0.05
CY3	4.0389	4.1105	0.0716	0.07
EL3	4.4240	4.4509	0.0269	0.03
TL3	4.3604	4.4038	0.0434	0.04
CH3	3.7046	3.7432	0.0386	0.04
VY4	3.3640	3.3803	0.0163	0.02
AC4	2.9683	2.9812	0.0129	0.01
CY4	3.5487	3.5582	0.0095	0.01
EL4	4.0614	4.1243	0.0629	0.06
TL4	4.0942	4.1288	0.0346	0.03
CH4	3.5487	3.5662	0.0175	0.02
VY5	3.2609	3.2665	0.0056	0.01
AC5	3.5761	3.5926	0.0165	0.02
CY5	3.6341	3.6530	0.0189	0.02
EL5	3.9564	4.0152	0.0588	0.06
TL5	3.6218	3.6394	0.0176	0.02
CH5	3.6073	3.6354	0.0281	0.03
VY6	3.4270	3.4313	0.0043	0.00
AC6	3.2985	3.3051	0.0066	0.01
EL6	4.0037	4.0639	0.0602	0.06
TL6	4.0487	4.0749	0.0262	0.03
VY7	3.9101	3.9293	0.0192	0.02
AC7	3.6554	3.6769	0.0215	0.02
EL7	3.9173	3.9637	0.0464	0.05
TL7	4.1082	4.1244	0.0162	0.02
VY8	3.9627	4.0000	0.0373	0.04
AC8	3.7970	3.8300	0.0330	0.03
EL8	4.1887	4.2170	0.0283	0.03

EL9	4.2377	4.2379	0.0002	0.00
TL8	4.0644	4.1094	0.0450	0.04
VY9	3.3358	3.3344	-0.0014	0.00
AC9	3.6075	3.6237	0.0162	0.02
TL9	3.9736	4.0000	0.0264	0.03
VY10	3.8755	3.8994	0.0239	0.02
AC10	3.9356	3.9705	0.0349	0.03
EL10	3.7736	3.8082	0.0346	0.03
TL10	4.1027	4.1436	0.0409	0.04
JS1	3.7643	3.7936	0.0293	0.03
JS2	3.8859	3.9288	0.0429	0.04
JS3	4.0570	4.1274	0.0704	0.07
JS4	3.7778	3.8086	0.0308	0.03
JS5	4.1527	4.2120	0.0593	0.06
JS6	3.5115	3.5509	0.0394	0.04
JS7	3.6221	3.6484	0.0263	0.03
JS8	3.6412	3.6908	0.0496	0.05
JS9	3.6743	3.7320	0.0577	0.06
JS10	3.8851	3.9406	0.0555	0.06
CS1	3.6169	3.6426	0.0257	0.03
CS2	3.5939	3.6256	0.0317	0.03
CS3	3.8123	3.8640	0.0517	0.05
CS4	3.7143	3.7638	0.0495	0.05
CS5	3.8161	3.8640	0.0479	0.05
OC1	4.1395	4.2024	0.0629	0.06
OC2	3.8062	3.8445	0.0383	0.04
OC3	3.9767	4.0340	0.0573	0.06
OC4	3.3953	3.4009	0.0056	0.01
OC5	3.4186	3.4311	0.0125	0.01
OC6	3.9767	4.0339	0.0572	0.06
OC7	3.5814	3.6163	0.0349	0.03
OC8	3.8863	3.9336	0.0473	0.05
OC9	4.1047	4.1848	0.0801	0.08
OC10	3.6260	3.6750	0.0490	0.05

Appendix 10: T-Test between Gender and Academic Leadership

Factor	Gender	N	Mean	Std. Deviation	Std. Error Mean	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper	ETA Sq
Innovative	Male	90	3.7247	.49522	.05220	.468	.495	1.175	200	.241	.07886	.06712	-.05349	.21120	0.01
	Female	112	3.6458	.45649	.04313										
Effective	Male	90	4.1200	.34583	.03645	1.216	.272	.608	200	.544	.03161	.05195	-.07084	.13406	0.00
	Female	112	4.0884	.38315	.03620										
Executive	Male	90	4.1167	.37901	.03995	.901	.344	.065	200	.948	.00327	.05048	-.09627	.10282	0.00
	Female	112	4.1134	.33758	.03190										
Adaptive	Male	90	3.6847	.47782	.05037	.650	.421	.936	200	.350	.05972	.06378	-.06605	.18549	0.00
	Female	112	3.6250	.42745	.04039										
Academic Leadership	Male	90	3.9115	.34116	.03596	.044	.835	.929	200	.354	.04337	.04669	-.04870	.13543	0.00
	Female	112	3.8682	.32043	.03028										

Appendix 11: T-Test between Gender and Work-Related Attitude

Factor	Gender	N	Mean	Std. Deviation	Std. Error Mean	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		ETA Sq
													Lower	Upper	
Organizational Commitment	Male	90	3.9044	.68858	.07258	.144	.705	1.472	200	.143	.13748	.09342	-.04674	.32170	0.01
	Female	112	3.7670	.63606	.06010										
Career Satisfaction	Male	90	3.7644	.75882	.07999	3.317	.070	1.085	200	.279	.12337	.11373	-.10090	.34764	0.01
	Female	112	3.6411	.83747	.07913										
Job Satisfaction	Male	90	3.7444	.71014	.07486	.013	.911	.593	200	.554	.05694	.09609	-.13253	.24642	0.00
	Female	112	3.6875	.65252	.06166										
Job Skills	Male	90	4.0356	.49043	.05170	.005	.942	2.098	200	.037	.13913	.06631	.00837	.26989	0.02
	Female	112	3.8964	.45001	.04252										
Work-Related Attitude	Male	90	3.8622	.54275	.05721	.121	.728	1.557	200	.121	.11423	.07334	-.03040	.25886	0.01
	Female	112	3.7480	.49746	.04701										

Appendix 12: T-Test between Marital Status and Academic Leadership

Factor	Gender	N	Mean	Std. Deviation	Std. Error Mean	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		ETA Sq
													Lower	Upper	
Innovative	Single	20	3.5056	.46513	.10401	.191	.662	-1.891	196	.060	-.20824	.11015	-.42547	.00899	0.02
	Married	178	3.7138	.46726	.03502										
Effective	Single	20	4.1400	.29272	.06545	1.433	.233	.446	196	.656	.03888	.08722	-.13313	.21088	0.00
	Married	178	4.1011	.37717	.02827										
Executive	Single	20	4.0950	.31535	.07052	.821	.366	-.332	196	.740	-.02803	.08437	-.19442	.13836	0.00
	Married	178	4.1230	.36201	.02713										
Adaptive	Single	20	3.6250	.42728	.09554	.003	.958	-.301	196	.764	-.03230	.10729	-.24389	.17928	0.00
	Married	178	3.6573	.45780	.03431										
Academic Leadership	Single	20	3.8414	.24953	.05580	1.706	.193	-.736	196	.463	-.05743	.07801	-.21128	.09643	0.00
	Married	178	3.8988	.33837	.02536										

Appendix 13: T-Test between Marital Status and Work-Related Attitude

Factor	Gender	N	Mean	Std. Deviation	Std. Error Mean	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		ETA Sq
													Lower	Upper	
Organizational Commitment	Single	20	3.7500	.72148	.16133	.025	.875	-.580	196	.562	-.09101	.15683	-.40031	.21829	0.00
	Married	178	3.8410	.65867	.04937										
Career Satisfaction	Single	20	3.5300	.83924	.18766	.084	.772	-.953	196	.342	-.18236	.19137	-.55976	.19504	0.00
	Married	178	3.7124	.80841	.06059										
Job Satisfaction	Single	20	3.8700	.63337	.14163	.012	.912	1.001	196	.318	.15989	.15976	-.15518	.47495	0.01
	Married	178	3.7101	.68198	.05112										
Job Skills	Single	20	3.9100	.46101	.10308	.032	.858	-.490	196	.624	-.05517	.11248	-.27699	.16665	0.00
	Married	178	3.9652	.47860	.03587										
Work-Related Attitude	Single	20	3.7650	.49970	.11174	.002	.964	-.341	196	.734	-.04216	.12379	-.28629	.20196	0.00
	Married	178	3.8072	.52753	.03954										

Appendix 14: ANOVA for Academic Leadership on Ethnic

		Sum of Squares	df	Mean Square	F	Sig.	df1	df2	eta sq
Innovative	Between Groups	.034	3	.011	.050	.985	3	197	.001
	Within Groups	45.231	197	.230					
	Total	45.266	200						
Effective	Between Groups	.582	3	.194	1.453	.229	3	197	.022
	Within Groups	26.314	197	.134					
	Total	26.897	200						
Executive	Between Groups	.268	3	.089	.700	.553	3	197	.011
	Within Groups	25.154	197	.128					
	Total	25.422	200						
Adaptive	Between Groups	.370	3	.123	.604	.613	3	197	.009
	Within Groups	40.247	197	.204					
	Total	40.617	200						
Academic Leadership	Between Groups	.115	3	.038	.347	.792	3	197	.005
	Within Groups	21.697	197	.110					
	Total	21.812	200						

	Ethic	N	Mean	SD
Innovative	Malays	176	3.6802	.49481
	Chinese	10	3.7222	.21276
	Indians	5	3.6222	.39946
	Others	10	3.6778	.38561
	Total	201	3.6808	.47574
Effective	Malays	176	4.1091	.37237
	Chinese	10	3.9000	.14907
	Indians	5	4.2800	.17889
	Others	10	4.1300	.43729
	Total	201	4.1040	.36672
Executive	Malays	176	4.1170	.35959
	Chinese	10	3.9800	.16865
	Indians	5	4.2200	.39623
	Others	10	4.1700	.42701
	Total	201	4.1154	.35653
Adaptive	Malays	176	3.6662	.45834
	Chinese	10	3.5375	.38663
	Indians	5	3.4500	.34911
	Others	10	3.6500	.42817
	Total	201	3.6536	.45065
Academic Leadership	Malays	176	3.8931	.34018
	Chinese	10	3.7849	.12302
	Indians	5	3.8931	.24676
	Others	10	3.9069	.34416
	Total	201	3.8884	.33024

Appendix 15: ANOVA for Work-Related Attitude on Ethnic

		Sum of Squares	df	Mean Square	F	Sig.	df1	df2	eta sq
Organizational Commitment	Between Groups	3.151	3	1.050	2.438	.066	3	197	.036
	Within Groups	84.893	197	.431					
	Total	88.044	200						
Career Satisfaction	Between Groups	1.178	3	.393	.609	.610	3	197	.009
	Within Groups	126.970	197	.645					
	Total	128.148	200						
Job Satisfaction	Between Groups	2.142	3	.714	1.574	.197	3	197	.023
	Within Groups	89.374	197	.454					
	Total	91.516	200						
Job Skills	Between Groups	.891	3	.297	1.332	.265	3	197	.020
	Within Groups	43.901	197	.223					
	Total	44.792	200						
Work-Related Attitude	Between Groups	1.251	3	.417	1.559	.201	3	197	.023
	Within Groups	52.693	197	.267					
	Total	53.944	200						

	Ethic	N	Mean	SD
Organizational Commitment	Malays	176	3.7989	.66736
	Chinese	10	3.6900	.61725
	Indians	5	4.3000	.40620
	Others	10	4.2400	.56411
	Total	201	3.8279	.66349
Career Satisfaction	Malays	176	3.6852	.80272
	Chinese	10	3.4800	.81213
	Indians	5	3.7200	.68702
	Others	10	3.9600	.84222
	Total	201	3.6896	.80046
Job Satisfaction	Malays	176	3.7034	.66966
	Chinese	10	3.5600	.80994
	Indians	5	4.3200	.46043
	Others	10	3.6400	.67856
	Total	201	3.7085	.67645
Job Skills	Malays	176	3.9409	.47968
	Chinese	10	3.9000	.30185
	Indians	5	4.2400	.40988
	Others	10	4.1600	.48808
	Total	201	3.9572	.47324
Work-Related Attitude	Malays	176	3.7821	.51953
	Chinese	10	3.6575	.58083
	Indians	5	4.1450	.35505
	Others	10	4.0000	.46158
	Total	201	3.7958	.51935

Appendix 16: ANOVA for Academic Leadership on Academic Rank

		Sum of Squares	df	Mean Square	F	Sig.	df1	df2	eta sq
Innovative	Between Groups	2.980	4	.745	3.405	.010	4	192	.066
	Within Groups	42.007	192	.219					
	Total	44.987	196						
Effective	Between Groups	.405	4	.101	.752	.558	4	192	.015
	Within Groups	25.815	192	.134					
	Total	26.220	196						
Executive	Between Groups	1.556	4	.389	3.178	.015	4	192	.062
	Within Groups	23.504	192	.122					
	Total	25.061	196						
Adaptive	Between Groups	.977	4	.244	1.221	.303	4	192	.025
	Within Groups	38.409	192	.200					
	Total	39.387	196						
Academic Leadership	Between Groups	1.172	4	.293	2.764	.029	4	192	.054
	Within Groups	20.359	192	.106					
	Total	21.531	196						

	Academic Rank	N	Mean	SD
Innovative	Lecturer	80	3.5410	.47238
	Senior lecturer	64	3.7483	.44708
	Assistant professor	8	3.7153	.49015
	Associate professor	28	3.7857	.49569
	Professor	17	3.8987	.46574
	Total	197	3.6810	.47909
Effective	Lecturer	80	4.0475	.33601
	Senior lecturer	64	4.1344	.39328
	Assistant professor	8	4.1500	.37417
	Associate professor	28	4.1250	.33624
	Professor	17	4.1647	.44150
	Total	197	4.1010	.36575
Executive	Lecturer	80	4.0188	.34092
	Senior lecturer	64	4.1641	.35428
	Assistant professor	8	4.1250	.39911
	Associate professor	28	4.2036	.35011
	Professor	17	4.2765	.35272
	Total	197	4.1188	.35757
Adaptive	Lecturer	80	3.5938	.44272
	Senior lecturer	64	3.6660	.46025
	Assistant professor	8	3.8750	.43301
	Associate professor	28	3.7545	.34272
	Professor	17	3.6765	.56434
	Total	197	3.6586	.44828
Academic Leadership	Lecturer	80	3.8002	.31377
	Senior lecturer	64	3.9282	.34606
	Assistant professor	8	3.9663	.32916
	Associate professor	28	3.9672	.26258
	Professor	17	4.0041	.38862
	Total	197	3.8899	.33144

Appendix 17: ANOVA for Work-Related Attitude on Academic Rank

		Sum of Squares	df	Mean Square	F	Sig.	df1	df2	eta sq
Organizational Commitment	Between Groups	4.757	4	1.189	2.817	.026	4	192	.055
	Within Groups	81.035	192	.422					
	Total	85.792	196						
Career Satisfaction	Between Groups	13.181	4	3.295	5.635	.000	4	192	.105
	Within Groups	112.278	192	.585					
	Total	125.458	196						
Job Satisfaction	Between Groups	5.645	4	1.411	3.270	.013	4	192	.064
	Within Groups	82.867	192	.432					
	Total	88.512	196						
Job Skills	Between Groups	2.047	4	.512	2.324	.058	4	192	.046
	Within Groups	42.280	192	.220					
	Total	44.327	196						
Work-Related Attitude	Between Groups	5.141	4	1.285	5.238	.001	4	192	.098
	Within Groups	47.105	192	.245					
	Total	52.246	196						

	Academic Rank	N	Mean	SD
Career Satisfaction	Lecturer	80	3.4300	.75915
	Senior lecturer	64	3.7281	.90176
	Assistant professor	8	3.7750	.31053
	Associate professor	28	3.9500	.62212
	Professor	17	4.2706	.52412
	Total	197	3.6873	.80006
Job Satisfaction	Lecturer	80	3.6450	.64039
	Senior lecturer	64	3.6656	.73208
	Assistant professor	8	3.5250	.68400
	Associate professor	28	3.7214	.57436
	Professor	17	4.2471	.53165
	Total	197	3.7096	.67200
Job Skills	Lecturer	80	3.8700	.47318
	Senior lecturer	64	3.9469	.51176
	Assistant professor	8	4.0750	.39911
	Associate professor	28	4.0214	.37054
	Professor	17	4.2235	.45212
	Total	197	3.9553	.47556
Work-Related Attitude	Lecturer	80	3.6697	.47450
	Senior lecturer	64	3.7961	.58436
	Assistant professor	8	3.7688	.25381
	Associate professor	28	3.8741	.40515
	Professor	17	4.2618	.42739
	Total	197	3.7949	.51630

Appendix 18: ANOVA for Academic Leadership on Qualification

		Sum of Squares	df	Mean Square	F	Sig.	df1	df2	eta sq
Innovative	Between Groups	1.343	2	.671	2.983	.053	2	193	.030
	Within Groups	43.436	193	.225					
	Total	44.778	195						
Effective	Between Groups	.829	2	.414	3.130	.046	2	193	.031
	Within Groups	25.560	193	.132					
	Total	26.389	195						
Executive	Between Groups	.854	2	.427	3.554	.031	2	193	.036
	Within Groups	23.193	193	.120					
	Total	24.048	195						
Adaptive	Between Groups	.838	2	.419	2.063	.130	2	193	.021
	Within Groups	39.195	193	.203					
	Total	40.033	195						
Academic Leadership	Between Groups	.910	2	.455	4.300	.015	2	193	.043
	Within Groups	20.427	193	.106					
	Total	21.337	195						

	Qualification	N	Mean	SD
Innovative	Bachelor	4	3.5000	.29745
	Master	91	3.5952	.47591
	Doctorate	101	3.7547	.47734
	Total	196	3.6755	.47920
Effective	Bachelor	4	3.8000	.24495
	Master	91	4.0516	.33973
	Doctorate	101	4.1505	.38720
	Total	196	4.0974	.36787
Executive	Bachelor	4	3.7750	.23629
	Master	91	4.0615	.32652
	Doctorate	101	4.1545	.36648
	Total	196	4.1036	.35117
Adaptive	Bachelor	4	3.3125	.46211
	Master	91	3.6044	.44498
	Doctorate	101	3.6943	.45534
	Total	196	3.6448	.45310
Academic Leadership	Bachelor	4	3.5969	.09058
	Master	91	3.8282	.31223
	Doctorate	101	3.9385	.34101
	Total	196	3.8803	.33079

Appendix 19: ANOVA for Work-Related Attitude on Qualification

		Sum of Squares	df	Mean Square	F	Sig.	df1	df2	eta sq
Organizational Commitment	Between Groups	.625	2	.313	.712	.492	2	193	.007
	Within Groups	84.782	193	.439					
	Total	85.407	195						
Career Satisfaction	Between Groups	4.779	2	2.389	3.758	.025	2	193	.037
	Within Groups	122.729	193	.636					
	Total	127.508	195						
Job Satisfaction	Between Groups	.106	2	.053	.115	.891	2	193	.001
	Within Groups	88.972	193	.461					
	Total	89.078	195						
Job Skills	Between Groups	.452	2	.226	.998	.370	2	193	.010
	Within Groups	43.658	193	.226					
	Total	44.110	195						
Work-Related Attitude	Between Groups	.774	2	.387	1.438	.240	2	193	.015
	Within Groups	51.928	193	.269					
	Total	52.702	195						

	Qualification	N	Mean	SD
Organizational Commitment	Bachelor	4	3.4250	.46458
	Master	91	3.8176	.60270
	Doctorate	101	3.8277	.71723
	Total	196	3.8148	.66180
Career Satisfaction	Bachelor	4	3.3000	.52915
	Master	91	3.5363	.79043
	Doctorate	101	3.8317	.81030
	Total	196	3.6837	.80863
Job Satisfaction	Bachelor	4	3.6000	.43205
	Master	91	3.6791	.68630
	Doctorate	101	3.7168	.67839
	Total	196	3.6969	.67588
Job Skills	Bachelor	4	3.9500	.19149
	Master	91	3.8989	.47551
	Doctorate	101	3.9960	.48165
	Total	196	3.9500	.47561
Work-Related Attitude	Bachelor	4	3.5688	.34362
	Master	91	3.7330	.50101
	Doctorate	101	3.8431	.53836
	Total	196	3.7864	.51987

Appendix 20: ANOVA for Academic Leadership on Academic Discipline

		Sum of Squares	df	Mean Square	F	Sig.	df1	df2	eta sq
Innovative	Between Groups	.149	3	.050	.216	.885	3	194	.003
	Within Groups	44.529	194	.230					
	Total	44.678	197						
Effective	Between Groups	.017	3	.006	.042	.988	3	194	.001
	Within Groups	25.272	194	.130					
	Total	25.289	197						
Executive	Between Groups	.135	3	.045	.361	.781	3	194	.006
	Within Groups	24.147	194	.124					
	Total	24.281	197						
Adaptive	Between Groups	.058	3	.019	.094	.963	3	194	.001
	Within Groups	40.087	194	.207					
	Total	40.146	197						
Academic Leadership	Between Groups	.053	3	.018	.163	.921	3	194	.003
	Within Groups	21.029	194	.108					
	Total	21.082	197						

	Academic Discipline	N	Mean	SD
Innovative	Pure sciences	17	3.7288	.53751
	Applied sciences	93	3.6971	.48186
	Pure arts	7	3.6429	.21242
	Applied arts	81	3.6502	.47794
	Total	198	3.6787	.47623
Effective	Pure sciences	17	4.1118	.42703
	Applied sciences	93	4.1075	.35301
	Pure arts	7	4.1286	.30394
	Applied arts	81	4.0926	.35944
	Total	198	4.1025	.35829
Executive	Pure sciences	17	4.1941	.37827
	Applied sciences	93	4.1183	.32536
	Pure arts	7	4.0857	.38483
	Applied arts	81	4.0988	.37466
	Total	198	4.1157	.35108
Adaptive	Pure sciences	17	3.6985	.49224
	Applied sciences	93	3.6452	.44090
	Pure arts	7	3.6071	.26446
	Applied arts	81	3.6590	.47311
	Total	198	3.6540	.45142

Appendix 21: ANOVA for Work-Related Attitude on Academic Discipline

		Sum of Squares	df	Mean Square	F	Sig.	df1	df2	eta sq
Organizational Commitment	Between Groups	.278	3	.093	.208	.891	3	194	.003
	Within Groups	86.409	194	.445					
	Total	86.687	197						
Career Satisfaction	Between Groups	.767	3	.256	.395	.756	3	194	.006
	Within Groups	125.373	194	.646					
	Total	126.139	197						
Job Satisfaction	Between Groups	.849	3	.283	.604	.613	3	194	.009
	Within Groups	90.955	194	.469					
	Total	91.804	197						
Job Skills	Between Groups	.094	3	.031	.137	.938	3	194	.002
	Within Groups	44.407	194	.229					
	Total	44.500	197						
Work-Related Attitude	Between Groups	.115	3	.038	.139	.936	3	194	.002
	Within Groups	53.486	194	.276					
	Total	53.601	197						

	Academic Discipline	N	Mean	SD
Organizational Commitment	Pure sciences	17	3.7118	.69811
	Applied sciences	93	3.8473	.65783
	Pure arts	7	3.8000	.82057
	Applied arts	81	3.8111	.65917
	Total	198	3.8192	.66335
Career Satisfaction	Pure sciences	17	3.5294	.81222
	Applied sciences	93	3.7247	.75924
	Pure arts	7	3.5143	1.20475
	Applied arts	81	3.6741	.81452
	Total	198	3.6798	.80019
Job Satisfaction	Pure sciences	17	3.8824	.72477
	Applied sciences	93	3.7247	.63377
	Pure arts	7	3.7714	.45356
	Applied arts	81	3.6494	.74467
	Total	198	3.7091	.68265
Job Skills	Pure sciences	17	3.9647	.57981
	Applied sciences	93	3.9720	.48954
	Pure arts	7	4.0286	.59362
	Applied arts	81	3.9358	.43108
	Total	198	3.9586	.47528
Work-Related Attitude	Pure sciences	17	3.7721	.54140
	Applied sciences	93	3.8172	.48710
	Pure arts	7	3.7786	.65597
	Applied arts	81	3.7676	.55210
	Total	198	3.7917	.52162

Appendix 22: ANOVA for Academic Leadership on Administrative Position

		Sum of Squares	df	Mean Square	F	Sig.	df1	df2	eta sq
Innovative	Between Groups	5.354	6	.892	4.360	.000	6	195	.118
	Within Groups	39.913	195	.205					
	Total	45.267	201						
Effective	Between Groups	1.120	6	.187	1.406	.214	6	195	.041
	Within Groups	25.869	195	.133					
	Total	26.989	201						
Executive	Between Groups	1.767	6	.294	2.426	.028	6	195	.069
	Within Groups	23.669	195	.121					
	Total	25.435	201						
Adaptive	Between Groups	1.082	6	.180	.886	.506	6	195	.027
	Within Groups	39.697	195	.204					
	Total	40.779	201						
Academic Leadership	Between Groups	1.795	6	.299	2.909	.010	6	195	.082
	Within Groups	20.054	195	.103					
	Total	21.850	201						

	Administration Post	N	Mean	SD
Innovative	No position	89	3.5218	.49857
	Programme chairperson	55	3.8172	.40440
	Deputy director	6	3.9352	.48102
	Deputy dean	14	3.6627	.44682
	Director	11	3.9949	.43635
	Dean	18	3.8457	.36283
	Others	9	3.5679	.40519
	Total	202	3.6810	.47456
Effective	No position	89	4.0539	.34872
	Programme chairperson	55	4.1509	.39057
	Deputy director	6	4.3667	.32660
	Deputy dean	14	4.1357	.33191
	Director	11	4.0909	.35904
	Dean	18	4.1722	.41275
	Others	9	3.9333	.31225
	Total	202	4.1025	.36643
Executive	No position	89	4.0303	.34981
	Programme chairperson	55	4.1909	.35656
	Deputy director	6	4.3833	.60139
	Deputy dean	14	4.1357	.30283
	Director	11	4.2182	.28572
	Dean	18	4.1944	.24846
	Others	9	3.9889	.38224
	Total	202	4.1149	.35573
Adaptive	No position	89	3.6194	.45184
	Programme chairperson	55	3.6955	.46756

	Deputy director	6	3.8958	.27858
	Deputy dean	14	3.6786	.47463
	Director	11	3.6705	.51621
	Dean	18	3.6806	.42275
	Others	9	3.4167	.33657
	Total	202	3.6516	.45042
Academic Leadership	No position	89	3.8064	.32316
	Programme chairperson	55	3.9636	.33425
	Deputy director	6	4.1453	.29868
	Deputy dean	14	3.9032	.32553
	Director	11	3.9936	.35515
	Dean	18	3.9732	.25529
	Others	9	3.7267	.28251
	Total	202	3.8875	.32970

Appendix 23: ANOVA for Work-Related Attitude on Administrative Position

		Sum of Squares	df	Mean Square	F	Sig.	df1	df2	eta sq
Organizational Commitment	Between Groups	8.024	6	1.337	3.259	.004	6	195	.091
	Within Groups	80.025	195	.410					
	Total	88.049	201						
Career Satisfaction	Between Groups	16.727	6	2.788	4.805	.000	6	195	.129
	Within Groups	113.130	195	.580					
	Total	129.857	201						
Job Satisfaction	Between Groups	3.264	6	.544	1.191	.312	6	195	.035
	Within Groups	89.042	195	.457					
	Total	92.307	201						
Job Skills	Between Groups	2.954	6	.492	2.291	.037	6	195	.066
	Within Groups	41.897	195	.215					
	Total	44.851	201						
Work-Related Attitude	Between Groups	5.700	6	.950	3.809	.001	6	195	.105
	Within Groups	48.638	195	.249					
	Total	54.338	201						

	Administration Post	N	Mean	SD
Organizational Commitment	No position	89	3.6775	.66311
	Programme chairperson	55	3.8182	.63628
	Deputy director	6	4.0667	.52409
	Deputy dean	14	4.1429	.70571
	Director	11	3.9909	.75691
	Dean	18	4.2778	.42917
	Others	9	3.6333	.58737
	Total	202	3.8282	.66186
Career Satisfaction	No position	89	3.4112	.78356
	Programme chairperson	55	3.8182	.79654
	Deputy director	6	3.8333	.88015
	Deputy dean	14	3.9571	.53308
	Director	11	4.2182	.68966
	Dean	18	4.2000	.58611
	Others	9	3.6222	.91348
	Total	202	3.6960	.80377
Job Satisfaction	No position	89	3.6472	.62452
	Programme chairperson	55	3.7273	.73572
	Deputy director	6	3.7000	.35214
	Deputy dean	14	3.5143	.82914
	Director	11	4.0364	.78393
	Dean	18	3.9667	.53688
	Others	9	3.6889	.78174
	Total	202	3.7129	.67767

Job Skills	No position	89	3.8337	.46927
	Programme chairperson	55	4.0473	.45536
	Deputy director	6	4.1333	.41312
	Deputy dean	14	3.9571	.53882
	Director	11	4.2000	.53666
	Dean	18	4.0889	.41853
	Others	9	3.9778	.32318
	Total	202	3.9584	.47237
Work-Related Attitude	No position	89	3.6424	.49275
	Programme chairperson	55	3.8527	.52563
	Deputy director	6	3.9333	.31807
	Deputy dean	14	3.8929	.52746
	Director	11	4.1114	.53143
	Dean	18	4.1333	.41231
	Others	9	3.7306	.56066
	Total	202	3.7989	.51994

Appendix 24: The P-Value of Faculty Members

	OC	CS	JS	JSK
Innovative	**0.007	0.463	0.369	***0.000
Effective	0.125	0.937	0.798	0.402
Executive	*0.023	***0.000	**0.002	***0.000
Adaptive	0.439	0.277	0.061	0.436

* p<0.05; **p<0.01; ***p<0.001

Note: OC - Organizational commitment
CS - Career satisfaction
JS - Job skills
JSK - Job skills

Appendix 25: The P-Value of Male and Female

	Male				Female			
	OC	CS	JS	JSK	OC	CS	JS	JSK
Innovative	0.118	0.526	0.836	**0.002	***0.000	0.435	0.428	0.087
Effective	0.831	0.760	0.506	0.665	0.527	0.530	0.816	0.915
Executive	**0.005	***0.000	**0.008	*0.036	0.874	*0.037	0.112	***0.001
Adaptive	0.768	0.875	0.192	0.139	0.296	0.450	0.097	0.997

* p<0.05; **p<0.01; ***p<0.001

Note: OC - Organizational commitment
CS - Career satisfaction
JS - Job skills
JSK - Job skills

Appendix 26: SEM Output
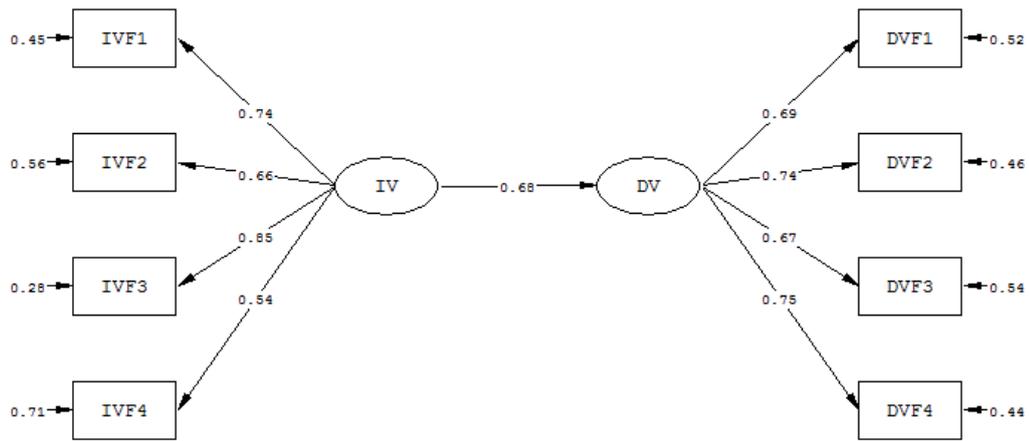
Chi-Square=80.25, df=19, P-value=0.00000, RMSEA=0.111

Degrees of Freedom = 19

Full Information ML Chi-Square = 80.2454 (P = 0.00)

Root Mean Square Error of Approximation (RMSEA) = 0.1111

90 Percent Confidence Interval for RMSEA = (0.08668 ; 0.1368)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.0000
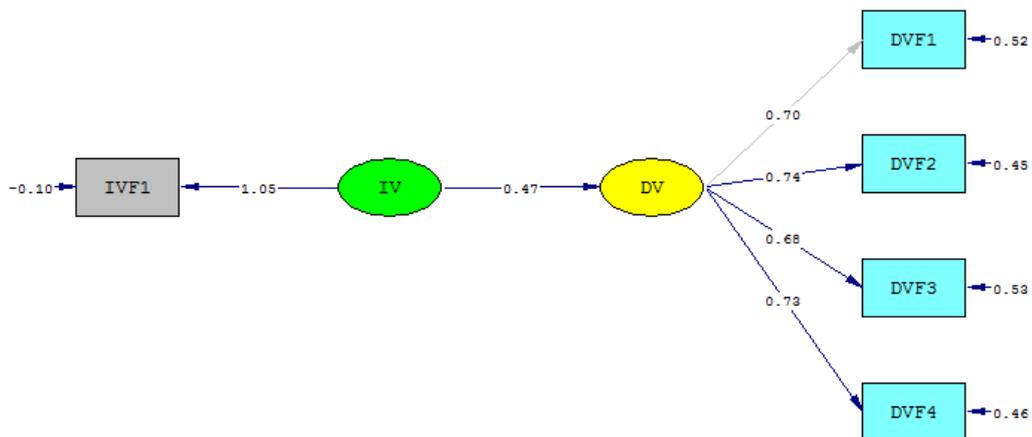
Chi-Square=59.33, df=4, P-value=0.00000, RMSEA=0.230
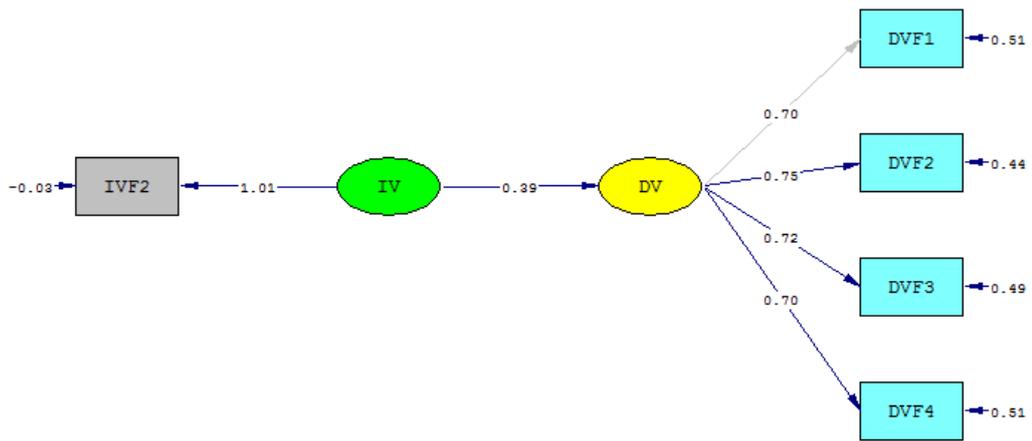
Chi-Square=19.22, df=4, P-value=0.00071, RMSEA=0.121
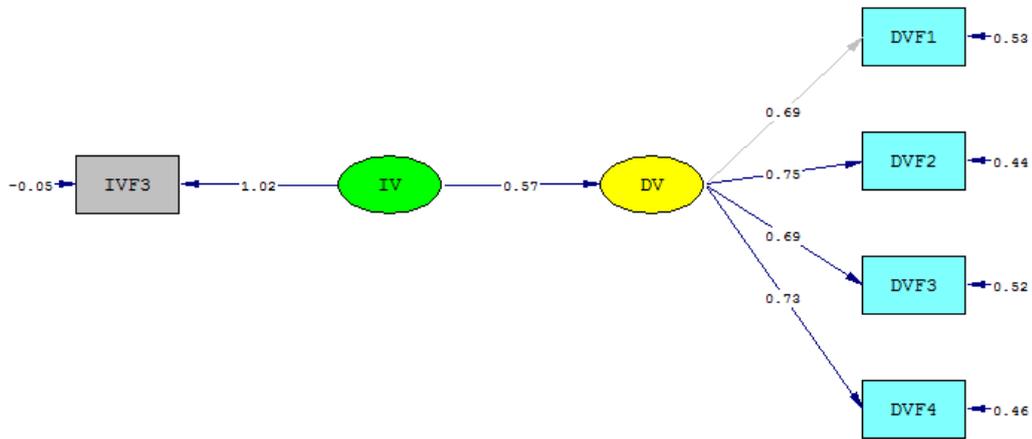
Chi-Square=29.77, df=4, P-value=0.00001, RMSEA=0.157
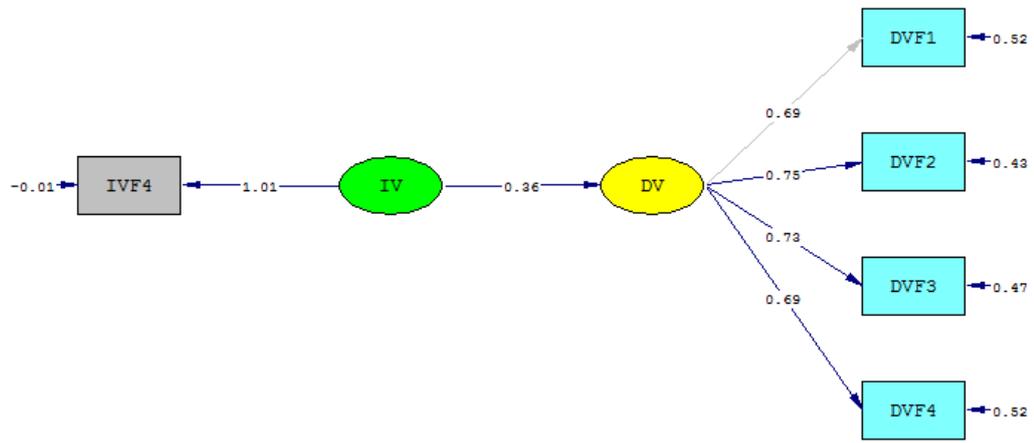
Chi-Square=7.84, df=4, P-value=0.09780, RMSEA=0.061