



**UNIVERSITI PUTRA MALAYSIA**

***IMPACT OF JOB CONTROL, JOB DEMAND AND SOCIAL SUPPORT ON  
TURNOVER INTENTION AMONG ACADEMICS IN A MALAYSIAN  
PRIVATE UNIVERSITY***

***AFDZAL AIZAT BIN RAMLI***

**FPP 2043 3**



**IMPACT OF JOB CONTROL, JOB DEMAND AND SOCIAL SUPPORT ON  
TURNOVER INTENTION AMONG ACADEMICS IN A MALAYSIAN  
PRIVATE UNIVERSITY**

By

**AFDZAL AIZAT BIN RAMLI**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in  
Fulfillment of the Requirement for the Master of Science**

**January 2013**

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Master of Science

**IMPACT OF JOB CONTROL, JOB DEMAND AND SOCIAL SUPPORT ON  
TURNOVER INTENTION AMONG ACADEMICS IN A MALAYSIAN  
PRIVATE UNIVERSITY**

By

**AFDZAL AIZAT BIN RAMLI**

**January 2013**

**Chairman : Professor Turiman Suandi, PhD**

**Faculty : Educational Studies**

In view of the rapid development especially in the global knowledge economy, it is important that in order to sustain and be successful, the higher education institution should retain good and experienced academics. They are regarded as the repository of knowledge, disseminators of knowledge and creators of new knowledge. However, as Malaysia is expected to be a regional hub for international higher education, consequently it can burden the academics particularly in the private institution of higher learning. As such, it triggers stress among the academics and will lead them to stimulate the turnover intention. However, academics turnover intention can be considered as dangerous because it not only have impacts on the institution but also directly and

indirectly on the student itself in terms of negative consequences. Therefore, this study attempts to determine the relationship between job demand, job control and social support on turnover intention and also the effects of job control and social support as the moderator in the relationship between job demand and turnover intention.

This study draws on the empirical results from 201 academics in private institutions of higher learning in the Klang Valley by using simple random sampling. The hypotheses were tested by using the Pearson Product-Moment Correlation and the hierarchical multiple regression analysis in order to examine the relationship between the three independent variables with turnover intention as well as the moderator effect. Instruments were used from Job Content Questionnaire (Karasek, 1985) and turnover intention from O'Driscoll and Beehr's, (1994). The empirical results support the view that job control determine the level of turnover intention as well as social support on turnover intention. The regression estimation shows that social support was significantly reflected in turnover intention among academics.

The findings suggest that if the private institution want to make a better account in sustaining and achieving success in the global knowledge economy; it should place much greater emphasis not only on the role of social support (co-worker and supervisor) but also by providing academics with greater job control in order to retain them. Social support from co-worker and supervisor is viewed as an important element in order to eliminate or buffer the stress which is derived from excessive job demand while job

control provides academics with the sense of autonomous in delivering their jobs and role to the institution.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**KESAN KAWALAN KERJA, TUNTUTAN KERJA DAN SOKONGAN SOSIAL  
TERHADAP NIAT BERHENTI DI KALANGAN ANGGOTA AKADEMIK DI  
PENGAJIAN TINGGI SWASTA MALAYSIA**

Oleh

**AFDZAL AIZAT BIN RAMLI**

**Januari 2013**

**Pengerusi : Professor Turiman Suandi, PhD**

**Fakulti : Pengajian Pendidikan**

Untuk mengekalkan kejayaan dan untuk maju ke hadapan di dalam pembangunan yang pesat terutama di dalam ekonomi pengetahuan global, institusi pengajian tinggi persendirian perlulah untuk mengekalkan para pensyarah yang cemerlang dan berpengalaman. Pensyarah di lihat sebagai seorang wadah pengetahuan, penyebar pengetahuan dan pencipta ilmu pengetahuan yang baru. Tetapi, berhubung dengan jangkaan Malaysia untuk menjadi pusat serantau antarabangsa untuk pengajian tinggi, ia sekaligus membebankan para pensyarah terutamanya di dalam institusi pengajian tinggi persendirian. Keadaan sedemikian boleh mencetuskan tekanan perasaan di kalangan para pensyarah dan sekaligus mencetuskan niat untuk berhenti. Ini boleh di

anggap berbahaya kerana ia boleh memberi kesan kepada institusi and pelajar secara langsung dan tidak langsung. Jesteru itu, kajian ini cuba untuk menentukan samada hubungkait antara tuntutan kerja, kawalan kerja dan sokongan sosial dengan niat berhenti dan juga untuk mengkaji pemboleh ubah moderator kawalan kerja dan sokongan sosial di dalam hubungkait tuntutan kerja dan niat berhenti.

Kajian ini melibatkan seramai 201 orang pensyarah dari institusi pengajian tinggi swasta di Lembah Klang. Hipotesis di uji dengan korelasi Pearson dan analisis regresi hirarki. Penggunaan instrumen di ambil dari Karasek (1985) untuk menguji pemboleh ubah tidak bersandar manakala bagi pemboleh ubah bersandar, instrumen di ambil dari O'Driscoll dan Beehr's (1994). Hasil kajian menunjukkan hanya kawalan kerja dan sokongan sosial yang berhubungkait dengan niat berhenti dalam kalangan pensyarah. Estimasi regresi menunjukkan bahawa niat berhenti adalah digambarkan dengan sokongan sosial.

Dapatan kajian menunjukkan bahawa institusi pengajian tinggi persendirian perlu mengekalkan sokongan sosial (rakan sekerja dan penyelia) dan juga kawalan kerja di dalam usaha untuk mengekalkan pensyarah supaya institusi dapat kekal bertahan dan berjaya di dalam ekonomi pengetahuan global. Sebagai manusia, sokongan sosial berupaya membantu menghilangkan atau merendahkan tekanan yang berpunca dari beban kerja yang berlebihan dan kawalan kerja yang tinggi dapat memberikan autonomi kepada pensyarah dalam menyampaikan tugas dan peranan mereka kepada institusi.

## ACKNOWLEDGEMENTS

There are many special persons who deserve thanks for their contribution to this dissertation. First and foremost, I want to give thanks to Allah who has answered my prayer. Next, my utmost gratitude goes to my dissertation chairman, Professor Dr. Turiman Bin Suandi for continue encouragement and support. I am very grateful to Dr. Ismi Arif Bin Ismail for being so generous with his valuable time, and for being such a strong mentor. I sincerely appreciate their responsiveness during the years of my study in this program. Special thanks also to UNITEN for sponsoring me in master program. I wouldn't be performing this thesis without permission from Human Resources Department of UNITEN.

I want to thank one special person, my colleague, Dr. Shahrul Nizam Bin Salahuddin for his unwavering support and his inspiring intellectual stimulation.

Most importantly, I wish to thank my beloved wife, Umi Kalsum Binti Bustamam who stood beside me and encouraged me constantly, my thanks to my son, Afdzal Mirza for giving me happiness and joy. You raised me, supported me, taught me, and love me. To them I dedicate this thesis.

Finally, I would like to thank my mother whose love is boundless and for my father who is my role model.



This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

**Turiman Suandi, PhD**  
Professor  
Faculty of Educational Studies  
Universiti Putra Malaysia  
(Chairman)

**Ismi Arif Ismail, PhD**  
Associate Professor  
Faculty of Educational Studies  
Universiti Putra Malaysia  
(Member)



---

**BUJANG BIN KIM HUAT, PhD**  
Professor and Dean  
School of Graduate Studies  
Universiti Putra Malaysia

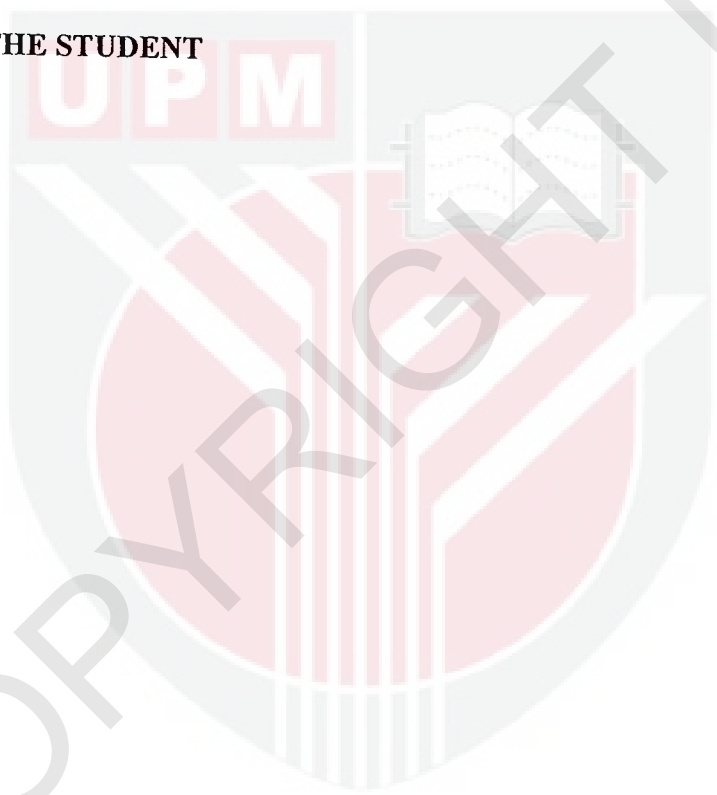
Date:

## TABLE OF CONTENTS

	Page
ABSTRACT	ii
ABSTRAK	v
ACKNOWLEDGEMENTS	vii
APPROVAL	viii
DECLARATION	x
LIST OF TABLES	xi
LIST OF FIGURES	xiii
<b>CHAPTER</b>	
<b>1 INTRODUCTION</b>	
Background of the Study	1
Turnover Intention in Academia Context	4
Problem Statement	9
Objective of the Study	10
Significance of the Study	12
Limitations of the Study	13
Definition of Terms	14
Summary	16
<b>2 REVIEW OF THE LITERATURE</b>	
Introduction	18
The Review on Turnover Intention	18
Theoretical Foundation: Employee Turnover Models	18
Models that Focus on the Process of Turnover	19
Comprehensive Models	24
Expanded Model of Turnover	24
Steers and Mowday's Model of Turnover	26
Meta-analytical Model of Organizational Commitment	27
Conceptualization of Turnover Intention	29
Conceptualization of Turnover Behavior	34
Turnover among Academics	36
The Review on Job Demand	47
Theories of Job Demand	47
Job Demand and Turnover Intention	52

The Review on Job Control	55
Theories of Job Control	55
Job Control and Turnover Intention	60
The Review on Social Support	63
Theories of Social Support	63
Social Support and Turnover Intention	70
Summary	73
<b>3 METHODOLOGY</b>	
Conceptual Framework	74
Population and Sample	78
Sample Size Determination	78
Procedures	81
Instrumentation	84
Measurement	86
Pilot Test	87
Data Analysis Procedures	89
Descriptive Analysis	90
Reliability Analysis	91
Validity Analysis	93
Hypotheses Testing	98
Summary	100
<b>4 FINDINGS AND DISCUSSION</b>	
Demographic Information and Descriptive Statistics	101
Frequency Distribution of the Demographics' Profile of Private Institution of Higher Learning	101
Mean and Standard Deviation	104
The Pearson Product-Moment Correlation	105
Hypothesis 1	106
Hypothesis 2	106
Hypothesis 3	107
Hierarchical Multiple Regression	108
Hypothesis 4	108
Hypothesis 5	108
Multiple Regression	109
Discussion of the Findings	111
Turnover Intention	111
Job Demand and Turnover Intention	112
Job Control and Turnover Intention	114
Social Support and Turnover Intention	115

Summary	116
<b>SUMMARY, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS</b>	
Summary	117
Conclusion	121
Implications	123
Recommendations	127
<b>REFERENCES</b>	131
<b>APPENDICES</b>	155
<b>BIODATA OF THE STUDENT</b>	163



## LIST OF TABLES

Table	Page
1.1 Private institution of higher learning in Malaysia	2
3.1 Target population	79
3.2 Details of the distribution of questionnaire	80
3.3 Total sample and actual respondents	81
3.4 Description of each part in the survey questionnaire	86
3.5 Reliability test of internal consistency (Cronbach's Alpha)	89
3.6 Reliability test of internal consistency (Cronbach's Alpha)	93
3.7 Factor loadings for each item in independent variables	94
3.8 Factor loadings for each item in dependent variable	97
4.1 Frequency distribution of respondents by each profile	102
4.2 Mean and standard deviations for each independent and dependent variable	105
4.3 Summary of correlation between independent and dependent variables	105
4.4 Explained variance (job control and social support towards turnover intention)	109
4.5 Analysis of variance	110



## LIST OF FIGURES

Figure		Page
1	The Process of Employee's Turnover	20
2	Research Framework: Job Demand, Job Control, Social Support and Turnover Intention	75
3	Research Framework: The Moderating Effect of Job Control and Social Support on the Relationship between Job Demand and Turnover Intention	77

## CHAPTER 1

### INTRODUCTION

#### Background of the Study

Due to the expansion of the higher education sector, there are a lot of opportunities offered to the public to further their studies in private institution of higher learning which apparently is be able to propel the knowledge-based economy. It arose from the concept of knowledge generation and utilization so as to ensure its contribution to the economic growth and wealth creation (Mustapha & Abdullah, 2004). In order to contribute to the economic growth, it is the functions of tertiary education to discover knowledge, generate ideas and encourage more innovation. Therefore, since 1995, the Malaysian government has encouraged the development of private higher learning institution which has been existence for the last two decades, in order to generate a pool of well-educated and skilled professionals (Sohail, Jegatheesan & Nor Azlin, 2002).

In the Malaysian context and according to Ministry of Higher Education (MOHE), there are two modes of ownership for tertiary education which can be divided into two groups, namely public institution of higher learning and private institution of higher learning. Public institution of higher learning is highly subsidized and managed by the Government of Malaysia and is basically non-profit oriented. While on the other hand, private institution of higher learning is owned and managed by the private organization



and it is profit oriented. Due to the liberalization, deregulation and privatization, this education sector can be seen as very dynamic and fluid with its rapid expansion, innovative educational programs and changing educational policies.

According to the MOHE, private institution of higher learning can be divided into four categories comprising of university, university college, branch campus and college. Today, their presence is dominant in several fields of educational system and their numbers show an amazing total of 470 institutions. Table 1.1 below depicts the detail number of private institution of higher learning in Malaysia.

**Table 1.1. Private institution of higher learning in Malaysia**

	Number	Percentage
University	29	6.17
University College	21	4.47
Branch Campus	5	1.06
College	415	88.30
<b>TOTAL</b>	<b>470</b>	<b>100.00</b>

Source: [jpt.mohe.gov.my/menudirektori.php](http://jpt.mohe.gov.my/menudirektori.php)

Generally, the functions of institution of higher learning are to provide extended knowledge and also the experience to students based on their courses which are divided into several levels like certificate, diploma, extended diploma, first degree and higher degree qualifications. According to MOHE, there are three types of fields offered by private institution of higher learning, which can be divided into science, literature, social science and technical. Under the three main majors, there are several of programs

offered for students in order to find the niche of their interest and prepare for future work field.

In order to perform the responsibilities of providing and delivering good education to the students, the workforce of private institution of higher learning should advocate for high quality of positive attitude and knowledge. Thus, it is viewed that output from the tertiary education will determine and change the labour market needs since the production of knowledge can be considered as a marketable good and a saleable commodity. As the numbers of academics in private institution of higher learning is seen as significant to the contribution of graduate's success (Trower, 2005), it is viewed that more research should be conducted with an emphasis on increasing and enhancing the productivity of academics.

Therefore, the purpose of this study is to examine and investigate on how the job content influence the academics' turnover intention which it will lead to the actual behavior of turnover. It is important to retain those capable academics in the tertiary institution because of their ability to perform magnificently particularly in teaching, research and great deal of services in community (Trower, 2005). Moreover, academics are the ones who are able to produce the future human capital of the state (Lew Tek Yew, 2009) and their responsibility to the students is the core of university's mission and of the academics' duty (Kenedy, 1997). In order to probe the issue in detail, this study will explore the relationship of the job demand, job control, social support and

turnover intention among academics in private institution of higher learning in Malaysia.

Past literatures have stated that the scenario of turnover stimulate greater cost especially in recruiting a new capable employee, which contributes to a hike of induction and training cost as well as operation cost (Ongori, 2007; Amah, 2009). In another point of view, if the employee and training are not connected or aligned with the expectation of the organization, this will jeopardize the efficiency of the organization. Batra and Tan (2003) have highlighted that an efficient organization is more likely to provide formal training for their workforce where else less efficient organization seldom, hold training. In fact, training is mostly regarded as a high cost especially in time and financial constrains when in actual fact the resource can be used for other purpose.

In order to be competitive in the dynamic environment, the turnover issue must be fully understood by the management of the university. Hence, the study will explore the influences of job demand, job control and social support from the academics itself towards the turnover intention.

### **Turnover Intention in Academia Context**

An intent to either stay or leave the organization can be classified as a final stage in the psychological decision-making process of a person before leaving (Mobley, 1977). Therefore, turnover intention can be described as a forerunner to an actual turnover

behavior in many turnover models (Hom, Caranikas-Walker, Prussia & Griffeth, 1992; Hom, Griffeth & Sellaro, 1984; Mobley, 1982; Mowday, Porter & Steers, 1982; Smart, 1990; Steel & Ovalle, 1984; Steers & Mowday, 1981; Vandenberg & Scarpello, 1990).

Apparently, in most organization employee turnover can best be described as an unfortunate and costly aspect of human resource management. From a review of the classic studies, it can be seen that most of turnovers typically will result in negative consequences (Mobley et al., 1979). Therefore, the consequences faced by organizations in employee turnover can be divided into two aspects comprising of direct cost and indirect cost. According to Wood and Macaulay (1989), direct cost is referred to the organization's consumption of time and money in order to fulfill the need in the process of finding, hiring and training replacement employees. Whereas in indirect cost, it will occur during the process of finding replacement for employees, which organizations are facing up to in their declining productivity especially in where there are understaffing and the inexperience of new employees.

In the context of the higher education field, the investment in its searching and hiring process by universities can be considered as high, however, the return is poor when compared with an earlier investment. This situation is viewed as one that is not able to get a return from an investment in faculty member's promotion, training and sabbatical leave. Moreover, turnover phenomenon is able to jeopardize the aim of the organization in gaining and sustaining the quality of human capital and workforce. This point of view is supported by Bowen and Schuster (1986), which stated that "The excellence of

higher education is a function of the kind of people it is able to enlist and retain on its faculty” and in addition to that, the problem of academic staff turnover or in other term, “Brain Drain”, still continues in local universities (Khoo, 1981).

However, from a positive point of view, turnover can be seen as the movements of labor in and out and it tends to generate income and economic growth for both organization and individual. Indeed, it provides new opportunity for a vacancy and variety of knowledge and skill by transferring from one organization to another by both parties. In fact, as suggested by Mobley (1982), turnover phenomenon is able to stimulate positive changes in the organization through the creation of promotional opportunities, reorganization and restructuring of reporting lines and decision making, and the infusion of new people with new. While from an individual’s perspective, the decision to quit a position is positively associated with individual’s career objectives, or with the movement away from a stressful situation. This is supported by the studies done in Japan (Yadori & Kato, 2007) and United States (Kacmar et al., 2006; Shaw et al., 2005) which stated that voluntary turnover ratio is negatively related to labour productivity.

According to the study done in an academic context, it is viewed that some turnover among academic profession can be considered as a natural part of professional advancement. In Brown’s (1967, p. 25) study, the author suggested that the mobility of academics is accepted and approved by the profession “because loyalty to discipline transcends loyalty to school and that teaching and research skills are readily transferable

among schools”. Moreover, human capital theorists also believed that personal endowment such as ability and education could translate into returns in the marketplace.

On the other hand, Ghiselli (1974) found that some workers tend to move from one job to another, sometimes for no apparent or rational reason, despite having better alternative job offers or not. This phenomenon is called as job hopping behaviors. It is viewed that hobo syndrome behavior can be described as, “...the periodic itch to move from a job in one place to some other job in some other place” (p. 81). It is observed by the number of times workers reportedly leave their jobs for another in their entire career. In addition to that, Kawabe (1991) found that job hopping are common occurrence among information technology (IT) employees because of monetary reason; while James (1991) contended by highlighting that money solely is not the main reason, but happen by the availability of vast options in the job market.

To understand well in the context of higher educational learning, an academic is the main part in driving the credibility especially in marketable and employability of the student and also shaping and coloring the future of the student. This point of view is supported by Perkin (1969), which stated that the academic professions are the most important profession of the twentieth century and highly qualified academics’ possess’ important role in determining the quality of the output (graduates). Therefore, when turnover of academics happened, the cost is directly affecting the individual, departmental and institutional levels. The cost of turnover is able to trigger problematic situation in the higher education institution such as subsequent recruiting expenses,

disruptions of course offerings, discontinuities in departmental and student planning and loss of graduate student advisors (Ehrenberg, Kasper & Rees, 1991).

With the trend of fast moving globalization, liberalization and reforms of educational system, the process of improving the ranking of higher education institution, tends to stimulate challenge on developing ways particularly in improving the staff commitment to the universities. In order to achieve the desired goal, it is viewed that the ability of universities to retain excellent and experienced academics is the most vital criteria in order to lead world class universities. Therefore, by creating a team of committed and high quality academics who are committed to teaching, leading in research and innovation, would accelerate Malaysia's higher education institutions into world class standard and turn it into a leading education hub and apex universities as has been highlighted in National Higher Education Strategic Plan (Atan, 2007).

To fulfill Malaysia's target of becoming an international hub for a world class education and hold big responsibilities in the education scene, especially in achieving a target of attracting 100,000 foreign students, it therefore require that the higher education institution work together in offering excellence and quality services. With the influx of foreign students into Malaysia, it could boost the economy with the monetary flows and it is estimated that around RM50 millions would directly contribute to Malaysia annually (Uda Nagu, 2007).



## Problem Statement

To compete in the volatile global knowledge economy, institutions of higher learning should provide and enhance their productivity and occupational skills to other sectors by linking academics and students with activities from industrial and community (Tight, 2003; Humphrey & Hoque, 2007). Academics are viewed as the key elements in academia, whereby their roles determine the quality of undergraduate's experience and society (Capellaras, 2005). Moreover, academics accounted as the guardian of current knowledge, disseminators of knowledge and creators of new knowledge, as well as being critics of conventional academic and epistemological wisdom (Maimunah & Lawrence, 2007).

However, the rapid and dynamic education sector cannot be denied since there are numerous private institutions of higher learning in Malaysia and are pressured to achieve target of being a regional hub for international higher education. To cope with it, the academics have been burdened with academic and non-academic work and will be threatened to be set off from institution if he or she could not deliver the job given (Azman, Amy Yao, Elizabeth Yeo, Kuan Kong Lai & Yew Ju Soon, 2010). It will trigger pressure at the workplace and stress will occur immediately which will lead to stimulate the intention to leave in order to release and get out from stress (Hom & Kinichi, 2001; Rhoades et al., 2001; Baharudin, 2003; Brough & Frame, 2004; Elitharp, 2005; Blau, 1980; Mohd Kamel, 2009). It could significantly impact on the students



(Winefield, 2000) and to the university itself such as quality of graduates, research and publications (Mohd Kamel, 2009).

As such, a few gaps were identified from previous studies, particularly from the view of occupational stress, job satisfaction, organizational support and organizational commitment (Azman et al., 2010; Mohd Kamel, 2009; Fauziah & Kamaruzaman, 2009; Raemah & Rosli; 2011; Lew Tek Yew 2009). Therefore, there are needs to probe the phenomenon and examine them from the perspective of job demand, job control and social support towards academics' intention to leave. Perhaps this study will help to narrow the gap and enhance the existing body of knowledge surrounding the turnover intention among academics.

### **Objective of the Study**

The general objective of this study is to determine the relationship between job demand, job control and social support towards academics' turnover intention in private institution of higher learning in Malaysia. The specific objectives are stated below.

#### **Specific Objectives**

1. To determine the level of job demand, job control, social support and turnover intention among academics.

2. To determine the degree of relationship between job demand, job control and social support towards turnover intention among academics.
3. To determine the moderating effect of job control on the relationship between job demand and turnover intention among academics.
4. To determine the moderating effect of social support on the relationship between job demand and turnover intention among academics.

Derived from the specific objectives, this study presents the five hypotheses which are as stated below.

### **Hypotheses**

Hypothesis 1: Increased job demand is related to increased turnover intention.

Hypothesis 2: Increased job control is related to decreased turnover intention.

Hypothesis 3: Increased social support is related to decreased turnover intention

Hypothesis 4: The relationship between job demand and turnover intention is moderated by job control.

Hypothesis 5: The relationship between job demand and turnover intention is moderated by social support.

## Significance of the Study

Specific to the case in private institution of higher learning especially in Malaysia, it seems that research on turnover among academics has been limited in several ways. Firstly, only few of public higher education institutions have been researched systematically (Mohd Kamel, 2009) and secondly, a small number of private institution of higher learning (Lew Tek Yew, 2009; Azman et al., 2010; Fauziah & Kamaruzaman, 2009; Raemah & Rosli; 2011).

Since the government urged that Malaysia become an international education hub, there is a need to conduct this study as the knowledge workers are the capital of competitive advantage for the knowledge economy (Drucker, 1999). In addition, it is viewed that highly skilled professional should not be managed as disposable productive resources but rather be considered as human beings with specific needs and interests (Pare & Tremblay, 2007). Aligned with Tan (2008), it is important to retain employees' skills and experience within the organization. Since the capability of an organization is good to retain academics, it will lead to more committed academics who will assist the nation in providing and enhancing quality of human capital.

Furthermore, this study will also reassesses and clarifies the job demand, job control and social support for academics that may support the need for reevaluation of current practices and programs. It can also identify which area that needed either amendment or improvement. Consideration on academics' responsibility, discretion and social support

must be taken into the account seriously. In addition, from the viewpoint of Human Resources managers, it may help in designing their strategy on how to enhance the specification of the job itself.

Perhaps, the results and findings will help the management to retain the academics and minimize the implication that may arise from turnover intention. It may also aid the administrator to understand well on the issues of actual turnover behavior as well as the consequences.

#### **Limitations of the Study**

This study has done its best to reduce any limitations that may have to any negative influence on its findings. However, certain limitations could not be avoided in the sampling procedure.

The sample group used in this study was limited to academics only from the private institutions with the status of a university and university college in Selangor and Kuala Lumpur. Thus, its finding may not be generalized neither to entire of private institution of higher learning across Malaysia nor overseas and to public higher education institution as well as other industries.

While no restriction was made as to age, racial, educational or other backgrounds were made, however, time constraints and geographical limitations prevented the researcher from surveying the entire population in the entire region.

### **Definition of Terms**

1. Turnover intention: According to Ajzen and Fishbein (1980) and Igarria and Greenhaus (1992) turnover intention can be defined as the most immediate determinants of actual behavior. While, scholars like Firth, Mellor, Moore and Loquet (2004) stated that turnover intention refer to the individual who may be thinking to quit job. To align with the objective of the study, the definition of turnover intention is according to O'Driscoll and Beehr (1994) where it is a thought of leaving the present job, planning to look for new in job in future and actively search for a new job outside the organization or institution. Therefore, academics' turnover intention is a detachment behavior towards institution such as neglecting teaching hours, service task and professional development activities (Seigall & McDonald, 2004) and desire to leave for another position and/or career alternative (Rosser, 2004).

2. Job Demand: Job demand has been defined as the input which is coming in the form of technical, intellectual, physical, social or financial challenges. Meanwhile, Perrewe and Ganster (1989) classified it into two sets of group namely the quantitative and qualitative. The first set, quantitative refers to individual need to accomplish in a given period of time while qualitative, refer to complexity of work or level of required skills,

abilities and cognition in order to accomplish the job. According to Karasek (1985), job demand refer to psychological workload which measure the degree of task completion particularly derived from the organizational and physical exertion which measure the degree of job-related tasks that required physical effort in order to complete the task.

3. Job Control: Typically, it is defined as an influence over a person's work and work environment in order to establish a less threatening or a rewarding work situation (Fox, Dwyer & Ganster, 1993; Ganster, 1989; Soderfeldt, Soderfeldt, Muntaner, O'campo, Warg & Ohlson, 1996). According to Frese (1989) and Ganster (1989), job control consists of two dimensions which are decision making and job autonomy. Karasek (1985) defined the job control accordingly into two parts, which are skill discretion and decision authority. Skill discretion refers to creativity, flexibility and variation needed to complete the task. On the other hand, decision authority refers to job-related autonomy particularly in job design, scheduling and procedures in carrying out the task.

4. Social Support: Earlier definition refer to three aspects of social support such as emotional support, esteem support and network support. In general, it is viewed that social support is the availability and quality of help extended to an individual in need (Egbert, Koch, Coeling & Ayers, 2006; Hobfoll & Shirom, 2001). For the purpose of this study, refrence is made to Karasek (1985), whereby social support is divided into two aspects, which are supervisory support and co-worker support. Supervisor support refers to immediate superior who providing encouragement and support within work

group while co-worker support refers to colleague who providing encouragement and support within work group.

5. Academics: Trower (2005) defined the term an academic as a person who is capable in teaching, conducting research and providing service to the community particularly in tertiary institution. In detail, academics are the guardian of current knowledge, disseminators of knowledge, creators of new knowledge as well as being critics of conventional academic and epistemological wisdom (Maimunah & Lawrence, 2007). From the technical aspects, according to the Statistics of Higher Education of Malaysia (2011), an academic is a person who holds one or more qualification from the highest (Ph.D) to lowest (certificate, advanced diploma & professional level) with the job title of tutor, lecturer/assistant lecturer, senior lecturer, principle lecturer, associate professor and professor.

### Summary

This introductory chapter consists of the research problem that is going to be addressed in this study. It consist of the background of the study on the turnover problem focusing in the private institution of higher learning. Next, the research will cover the problem, objectives, significance and limitation of the study in order to highlight the importance and the need for this study.

This study will concentrate on the variables such as job demand, job control and social support and its relationship toward turnover intention. In addition to that, the moderation effects of job control and social support toward job demand and turnover intention will also be probed.





## REFERENCES

- Abbasi, S.M. & Hollman, K.W. (2000). Turnover: The real bottom line. *Public Personnel Management*. 29: 333-342.
- Abelson, M.A. (1993). Turnover cultures. *Research in Personal and Human Resources Management*. 11: 339-376.
- Ajzen, I. & Fishbein, M. (1980). Understanding Attitudes and Predicting Social Behaviour. Englewood Cliffs, New Jersey: Prentice-Hall.
- Ali Shah, I., Fakhr, Z., Ahmad, M. S. & Zaman, K. (2010). Measuring push, pull and personal factors affecting turnover intention: A case of university teachers in Pakistan. *Review of Economic & Business Studies*. Vol. 3, Issue 1: 167-192.
- Allen, D., Shore, L. & Griffeth, R. (2003). The role of perceived organizational support and supportive human resource practices in the turnover process. *Journal of Management*. 29(1): 99-118.
- Amah, O.E. (2008). *Job Satisfaction and Turnover Intention Relationship: The Moderating Effect of Job Role Centrality and Life Satisfaction*. Singapore: Human Resources Institute & Curtin University of Technology.
- Ambrose, S., Huston, T. & Norman, M. (2005). A qualitative method for assessing faculty satisfaction. *Research in Higher Education*. 46 (7): 803-830.
- American Association of University Professors (AAUP; 1996, March–April). *Not so bad*. *Academe*. 82(2): 14–22.
- Argyris, C. (1964). *Integrating the Individual and the Organization*. New York: Wiley.
- Ashraf, M.A. & Joarder, H.R. (2009). Talent management and retention practices from the faculty's point of view: A case study. *Journal of Human Capital*. 1(2): 151-163.
- Astin, A.W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Development*. 40(5): 518-529.
- Atan, H. Aiming higher: PM Maps Out Plan for World-Class Varsities. *The New Straits Times*, August 28, 2007, pp. 1.

- Azman Ismail, Amy Yao, Elizabeth Yeo, Kong Lai-Kuan & Ju Soon-Yew (2010). Occupational stress features, emotional intelligence and job satisfaction: An empirical study in private institutions of higher learning, <http://www.revistanegotium.org>. ver. 16 (5): 5-33.
- Baharudin Hj Puteh (2003). *Kualiti Perkhidmatan Institusi Pengajian Tinggi Swasta (IPTS) di Melaka*: Unpublished doctoral dissertation, Universiti Kebangsaan Malaysia.
- Bakker, A., Hakanen, J., Demerouti, E. & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*. 99(2): 274- 284.
- Bakker, A.B., Demerouti, E. & Euwema, M.C. (2005a). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*. 10: 170-180.
- Bakker, A.B., Demerouti, E. & Schaufeli, W.B. (2003). Dual process at work in a call centre: An application of the job demand-resource model. *European Journal of Work and Organizational Psychology*. 12: 393-417.
- Baldrige, J., Curtis, D., Ecker, G. & Riley, G. (1973). The impact of institutional size and complexity on faculty autonomy. *Journal of Higher Education*. 44: 532-548.
- Barnes, L., Agago, M. & Coombs, W. (1998). Effects of job-related stress on faculty intention to leave academia. *Research in Higher Education*. 39(4): 457-469.
- Baron, R. & Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*. 51: 1173-1182.
- Batra, G. & Tan, H. (2003). *SME Technical Efficiency and Its Correlates: Cross-National Evidence and Policy Implications*. Working Paper of World Bank Institute.
- Beadles, N.A. II, Lowery, C.M., Petty, M.M. & Ezell, H. (2000). An examination of the relationships between turnover functionality, turnover frequency, and organizational performance. *Journal of Business and Psychology*. 15: 331-387.

- Becker, H.S. (1960). Notes on the concept of commitment. *America Journal of Sociology*. 66: 32-42.
- Becker, S. (1964). *Human Capital*, New York: Columbia University Press.
- Beehr, T.A. & Glazer, S. (2005). Organizational role stress. In J. Barling, E.K. Kelloway and M. Frone (Eds.). *Handbook of work stress* (pp. 7-33). London: Sage Publications.
- Bennett, J. (2000). Mediator and moderator variables in nursing research: Conceptual and statistical differences. *Research in Nursing & Health*. 23: 415-420.
- Black, K. (1997). *Business Statistics: Contemporary Decision Making (2<sup>nd</sup> Edition)*. Minneapolis: West Publishing.
- Blackburn, R.T. & Havighurst, R.J. (1979). Career patterns of US male academic social scientists. *Higher Education*. 8: 553-572.
- Blau, G.J. (1980). *An Empirical Investigation of Job Stress, Social Support, Service Length and Strain. (Tech. Rep.)* Cincinnati, OH: University of Cincinnati.
- Blau, P.M. (1964). *Exchange and Power in Social Life*. New York: Wiley.
- Bluedorn, A.C. (1979). Structure, environment, and satisfaction: Toward a causal model of turnover from military organizations. *Journal of Political and Military Sociology*. 7: 181-207.
- Bluedorn, A.C. (1982b). A unified model of turnover from organizations. *Human Relations*. 35(2): 135-153.
- Bolles, R. (2006). *What Color is Your Parachute?* Berkeley, CA: Ten Speed Press 2006 Edition.
- Bowen, H.R. & Schuster, J.H. (1986). *American Professors: A National Resource Imperiled*. New York: Oxford University Press.
- Breneman, D.W. & Youn, T.I.K (1988). *Academic Labor Markets and Careers*. Philadelphia: The Falmer Press, Taylor & Francis Inc.

- Brough, P. & Frame, R. (2004). Predicting police job satisfaction and turnover intentions: The role of social support and police organisational variables. *New Zealand Journal of Psychology*. 33(1): 8-18.
- Brown, D.G. (1967). *The Mobile Professors*. Washington, DC: American Council on Education.
- Cameron, K. & Zammuto, R.F. (1986). Matching managerial strategies to conditions of decline. *Human Resource Management*. 22: 359-375.
- Cameron, K., Whetten, D.A. & Kim, M.U. (1987). Organizational dysfunctions of decline. *Academy of Management Journal*. 30: 126-138.
- Capelleras, J. (2005). Attitudes of academic staff towards their job and organization: An empirical assessment. *Tertiary Education and Management*. 11: 147-166.
- Caplow, T. & McGee, R.J. (1958). *The Academic Marketplace*. New York: Basic Books.
- Carmines E.G. & Zeller R.A. (1979). *Reliability and Validity Assessment: A Quantitative Applications in Social Sciences (Vol. 7)*. Thousand Oaks, California: SAGE Publication, Inc.
- Carsten, J.M. & Spector, P.E. (1987). Unemployment, job satisfaction, and employee turnover: a meta-analytic test of the Muchinsky model. *Journal of Applied Psychology*. 72: 374-81.
- Cascio, W. (1991) Costing human resources: The financial impact of behavior in an organizational and human relations. *Journal of Social Behavior and Personality*. 39: 245-264.
- Chang, L. (1994). A Psychometric Evaluation of 4-Point and 6-Point Likert-Type Scales in Relation to Reliability and Validity. *Applied Psychological Measurement*. Vol. 18, No. 3: 205-215.
- Chew, R. (1996). Excessive labor turnover: the case of clerical staff in Singapore. *International Journal of Manpower*. 14(9): 32-40.

- Chughtai, A.A. & Zafar, S. (2006). Antecedents and consequences of organizational commitment among Pakistani university teachers. *Applied H.R.M. Research*. 11(1): 39-64.
- Cobb, S. (1976). Social support as moderator of life stress. *Psychosomatic Medicine*. 38(5): 300-314.
- Cohen, A. & Colligan, M.J. (1998). Assessing Occupational Safety and Health Training. *DHHS (NIOSH)*: 98-145.
- Cohen, J. (1969). *Statistical Power Analysis for Behavioral Sciences*. New York: Academic Press.
- Cohen, S. & Wills, T. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*. 98(2): 310-357.
- Cohen, S., Gottlieb, B. & Underwood, L. (2000). Social Relationships and Health. In S. Cohen, L. Underwood and B. Gottlieb (Eds.). *Social Support Measurement and Intervention: A Guide for Health and Social Scientists* (pp. 3-25). New York: Oxford University Press.
- Comm, C.L. & Mathaisel, D.F.X. (2003). A case study of the implications of faculty workload and compensation for improving academic quality. *The International Journal of Educational Management*. 17(5): 200-210.
- Conklin M.H. & Desselle S.P. (2007). Job turnover intentions among pharmacy faculty. *American Journal of Pharmaceutical Education*. 71(4): Article 62.
- Dalton, D.R., & Todor, W.D. (1979). Turnover turned over: An expanded and positive perspective. *Academy of Management Review*. 4: 225-235.
- Dalton, D.R., Tudor, W.D. & Krackhardt, D.M. (1982). Turnover overstated: The functional taxonomy fit. *Academy of Management Review*. 14: 333-349.
- Daly, C.J. & Dee, J.R. (2006). Greener pastures: Faculty turnover intent in urban public universities. *The Journal of Higher Education*. 77(5): 776-803.
- Debrah, Y. (1994). Management of operative staff in a labour-scarce economy: The views of human resource managers in the hotel industry in Singapore. *Asia Pacific Journal of Human Resources*. 32(1): 41-60.

Deelstra, J.T., Peeters, M.C.W. & Schaufeli, W.B. (2003). Receiving instrumental support at work: When help is not welcome. *Journal of Applied Psychology*. 88(2): 324-331.

Demerouti, E., Bakker, A., Nachreiner, F. & Schaufeli, W. (2001). The job demands resources model of burnout. *Journal of Applied Psychology*. 86: 499- 512.

Department of Higher Education <http://jpt.mohe.gov.my/menudirektori.php> Ministry of Higher Education, Malaysia 2011.

Dougherty, T., Bluedorn, A. & Keon, T. (1985). Precursors of employee turnover: A multiple sample causal analysis. *Journal of Occupational Behavior*. 6: 259-271.

Drucker, P.F. (1999). Knowledge worker productivity: The biggest challenge. *California Management Review*. 41(2): 79-107.

Dua, J.K. (1994). Job stressors and their effects on physical health, emotional health and job satisfaction in a university. *Journal of Educational Administration*. 32: 58-78.

Egbert, N., Koch, L., Coeling, H. & Ayers, D. (2006). The role of social support in the family and community integration of right hemisphere stroke survivors. *Health Communications*. 20(1): 45-55.

Egbert, N., Koch, L., Coeling, H. & Ayers, D. (2006). The role of social support in the family and community integration of right-hemisphere stroke survivors. *Health Communications*. 20(1): 45-55.

Ehrenberg, R., Kasper, H. & Rees, D. (1990). Faculty turnover at American colleges and universities: Analyses of AAUP Data. *Economics of Education Review*. 10(2): 99-110.

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*. 71: 500-507.

Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*. 87: 565-573.



- Elitharp, T. (2005). *The Relationship of Occupational Stress, Psychological Strain, Satisfaction with Job, Commitment to the Profession, Age, and Resilience to the Turnover Intentions of Special Education Teachers*. Unpublished doctoral dissertation, Faculty of the Virginia Polytechnic Institute and State University.
- Enders, J. (1999). Crisis? What crisis? The academic professions in the 'knowledge' society. *Journal of Higher Education*. 38: 71–81.
- Fincham, J.E. (2008). Response Rates and Responsiveness for Surveys, Standards and the Journal. *American Journal of Pharmaceutical Education*. 72, Article 43.
- Firth, L., Mellor, D.J. Moore, K.A & Loquet, C. (2004) How can managers reduce employee intention to quit? *Journal of Managerial Psychology*. 19: 170-187.
- Fletcher, B. (1988). The Epidemiology of Occupational Stress. In C. Cooper and R. Payne (Eds.), *Causes, Coping And Consequences Of Stress At Work* (pp. 3-50). New York: John Wiley & Sons.
- Fletcher, B. (1991). *Work, Stress, Disease and Life Expectancy*. Chichester: Wiley.
- Florida, R. & Goodnight, J. (2005). Managing for creativity. *Harvard Business Review*. 83(7): 124–131.
- Flowers, V.S. & Hughes, R.J. (1973). Why employees stay. *Harvard Business Review*. 4: 49-60.
- Fogarty, T.J., Singh, J., Rhoads, G.K., & Moore, R.K. (2000). Antecedents and consequences of burnout in accounting: Beyond the role stress model. *Behavioral Research in Accounting*. 12: 31-67.
- Fox, M., Dwyer, D. & Ganster, D. (1993). Effects of stressful job demands and control on physiological and attitudinal outcomes in a hospital setting. *Academy of Management Journal*. 36(2): 289-318.
- Frese, M. (1989). Theoretical Models of Control and Health. In S. Sauter, J. Hurrell, Jr. and C. Cooper (Eds.), *Job Control and Worker Health* (pp. 107-127). New York: John Wiley & Sons.
- Galand, B., Lecocq, C. & Philippot, P. (2007), School violence and teacher professional disengagement. *British Journal of Educational Psychology*. 77(2): 65-77.

- Ganster, D. & Fusilier, M. (1989). Control in the Workplace. In C. Cooper and I. Robertson (Eds.), *International Review of Industrial and Organizational Psychology* (pp. 235-280). New York: John Wiley & Sons.
- Ganster, D. (1989). Worker control and well-being: A review of research in the workplace. In S. Sauter, J. Hurrell, Jr. and C. Cooper (Eds.), *Job Control and Worker Health* (pp. 3-23). New York: John Wiley & Sons.
- Gemignani, J. (1998), Employee turnover costs big bucks. *Business and Health*. 16(4): pp. 10-14.
- Ghiselli, E.E. (1974). Some perspectives for industrial psychology. *American Psychologist*. 29(2): 80-87.
- Gillespie, N.A., Walsh, M., Winefield, A.H., Dua, J. & Stough, C. (2001) Occupational stress in universities: Staff perceptions of the causes, consequences and moderators of stress, *Work & Stress*. 15: 53-72.
- Gmelch, W. H. & Burns, J. S. (1994). Sources of stress for academic department chairpersons. *Journal of Educational Administration*. 32: 79-94.
- Graham, C.W. (1989). Increase research performance through reduced stress and improved human well-being. *Journal of the Society of Research Administration*. 21(1): 35-39.
- Graham, K.S. (1999). Semantic dementia: A challenge to the multiple-trace theory? *Trends in Cognitive Sciences*. 3(3): 85-87.
- Griffeth, R., Hom, P. & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*. 26(3): 463-488.
- Guilford, J.P. (1956). *Introductory Statistics for Sociology*. Englewood Cliff, New Jersey: Prentice-Hall.
- Hackett, P. (2003). *Training & Practice*. New York: CIPD.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. & Tatham, R.L. (2006). *Multivariate data analysis, 6<sup>th</sup> Edition*. Upper Saddle-River, New Jersey: Pearson Education Inc.



- Halabu, C. & Weakliem, D. (1989). Worker control and attachment to the firm. *American Journal of Sociology*. 95(3): 549-591.
- Hall, D. (2007). The relationship between supervisor support and registered nurse outcomes in nursing care units. *Nursing Administration Quarterly*. 31(1): 68-80.
- Henkel, M. (2005). Academic identity and autonomy in a changing policy environment. *Journal of Higher Education*. 49: 155-176.
- Hobfoll, S. & Shirom, A. (1993). Stress and Burnout in the Workplace: Conservation of Resources. In R. T. Golembiewski (Ed.). *Handbook of Organizational Behavior* (pp. 41-60). New York: Marcel Dekker, Inc.
- Hobfoll, S. & Shirom, A. (2001). Conservation of Resources Theory: Applications to Stress and Management in the Workplace. In R. T. Golembiewski (Ed.). *Handbook of Organizational Behavior* (pp. 57-81). New York: Marcel Dekker, Inc.
- Hobfoll, S. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*. 44(3): 513- 524.
- Hofstede, G. & Hofstede, G.J. (2005). *Cultures and Organizations: Software of the Mind*. London, UK: McGraw-Hill.
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations across Nations*. Thousand Oaks CA: Sage Publications.
- Holtom, B.C., Mitchell, T.R., Lee, T.W. & Eberly, M.B. (2008). Turnover and retention research: A glance at the past, a closer review of the present, and a venture into the future. *The Academy of Management Annals*. 2(1): 231-274.
- Hom, P.W. & Griffeth, R. (1991). A structural equations modeling test of a turnover theory: Cross sectional and longitudinal analysis. *Journal of Applied Psychology*. 76: 350-366.
- Hom, P.W. & Griffeth, R. (1995). *Employee turnover*. Cincinnati, OH: Southwestern.

- Hom, P.W. & Kinichi, A.J. (2001). Towards a greater understanding of how dissatisfaction drives employee turnover. *Academy of Management Journal*. 44: 975–981.
- Hom, P.W., Caranikas-Walker, F., Prussia, G. E. & Griffeth, R. W. (1992). A meta analytical structural equations analysis of a model of employee turnover. *Journal of Applied Psychology*. 77: 890–909.
- Hom, P.W., Griffeth, R.W. & Sellaro, L. (1984). The validity of Mobley's model of employee turnover. *Organizational Behavioral and Human Performance*. 34: 141–171.
- House, J. (1981). *Work Stress and Social Support*. Reading, Massachusetts: Addison-Wesley Publishing.
- House, J. (1987). Social support and social structure. *Sociological Forum*. 2(1): 135 - 146.
- House, J., Landis, K. & Umberson, D. (1988). Social relationships and health science. *Institute Conference, the New Balancing Act in the Business of Higher*. 241: 540-545.
- Huang, I.C., Chi, H.J.C., James, A., Hao, C.L. & James, A. (2003). The role of burnout in the relationship between perceptions of organizational politics and turnover intentions. *Public Personnel Management*. 32(4): 519-531.
- Hulin, C. (1991). Adaptation, Persistence, and Commitment in Organizations. In M. Dunnette & L. Hough (Eds.). *Handbook of Industrial and Organizational Psychology* (vol. 2, pp. 445-505). New York: John Wiley.
- Humphreys, M. & Hoque, K. (2007). Have the lecturers lost their voice? Involvement and participation in the devolved further education sector. *International Journal of Human Resource Management*. 18(7): 1199-1213.
- Igbaria, M. & Greenhaus, J.H. (1992), Determinants of MIS employees' turnover intentions: a structural equation model. *Communications of the ACM*. 35(2): 35-49.
- Inagami, T. (1998). Labour market policies in Asian countries: diversity and similarity among Singapore, Malaysia, the Republic of Korea and Japan, <http://www.ilo.org/global/Departments Offices/langen/index.htm>

James, L.R. (1991). Testing hypotheses in the context of the unmeasured variables problem. *Human Resources Management Review*. 1(4): 273-291.

Joarder, M.H.R. & Sharif, M.Y. *Faculty turnover in private universities in Bangladesh: The tripartite investigation*. Proceedings of the International Conference on Social Science, Economics and Art, Putrajaya, Malaysia, Jan. 14-15, 2011.

Johnson, J. & Hall, E. (1988). Job strain, work place social support, and cardiovascular disease: A cross-sectional study of a random sample of the Swedish working population. *American Journal of Public Health*. 78(10): 1336-1342.

Johnson, J. (1989). Control, collectivity and the psychosocial work environment. In S. Sauter, J. Hurrell, Jr. and C. Cooper (Eds.). *Job Control and Worker Health* (pp. 55- 74). New York: John Wiley & Sons.

Johnsrud, L.K. & Rosser, V.J. (2002). Faculty members' morale and their intentions to leave: A multilevel explanation. *The Journal of Higher Education*. 71(1): 34-59.

Kacmar, K.M., Andrews, M.C, Van Roy, D.L., Steilbergand, R.C. & Cerrone, S. (2006) Sure everyone one can be replaced ..... but at what cost? Turnover as a predictor of unit level performance. *Academy of Management Journal*. 49: 133-142.

Kahn, R. & Byosiere, P. (1990). Stress in Organizations. In M. Dunnette and L. Hough (Eds.). *Handbook of Industrial and Organizational Psychology 2nd Ed. Vol.3*. Palo Alto, CA: Consulting Psychologists Press, Inc.

Kahn, R. (1980). Conflict, Ambiguity, and Overload: Three Elements in Job Stress. In Katz, D, Kahn, R, Adams, J (Eds). *The Study of Organizations* (pp.418- 28). San Francisco, CA, Jossey-Bass.

Kaplan, B., Cassel, J. & Gore, S. (1977). Social support and health. *Medical Care*. 15: 47-58.

Karasek, R. & Theorell, T. (1990). *Healthy Work: Stress, Productivity, and the Reconstruction of Working Life*. New York: Basic Books.

Karasek, R. & Theorell, T. (1990). *Stress, Productivity and the Reconstruction of Working Life*. New York: Basic Books, Inc.

- Karasek, R. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*. 24: 285-308.
- Karasek, R. (1985). *Job Content Questionnaire and User's Guide*. Lowell: University of Massachusetts Lowell, Department of Work Environment.
- Karasek, R. (1997). Demand/Control Model: A Social, Emotional, and Physiological Approach to Stress Risk And Active Behavior Development. In *ILO Encyclopedia of Occupational Health and Safety*. Geneva: ILO.
- Karasek, R., Baker, D., Marxer, F., Ahlbom, A. & Theorell, T. (1981). Job decision latitude, job demands, and cardiovascular disease: A prospective study of Swedish men. *American Journal of Public Health*. 71: 694-705.
- Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P. & Amick, B. (1998). The job content questionnaire (JCQ): An instrument for internationally comparative assessments of psychosocial job characteristics. *Journal of Occupational Health Psychology*. (4)3: 22-355.
- Kaufmann, G.M. & Beehr T.A. (1986). Interactions between job stressors and social support: Some counterintuitive results. *Journal of Applied Psychology*. 71(3): 522-526.
- Kawabe, N. (1991). Japanese Management in Malaysia. In Yamashita S (Ed.). *Transfer of Japanese Technology and Management to the ASEAN Countries* (pp. 239-266). Tokyo: University of Tokyo Press.
- Kelloway, E.K. & Barling, J. (1991). Job characteristics, role stress and mental health. *Journal of Occupational Psychology*. 63: 291-304.
- Kenedy, D. (1997). *Academic Duty*. Cambridge, MA: Harvard University Press.
- Kerlinger, F.N. (1986). *Foundations of Behavioral Research*. Forth Worth: Holt, Rinehart and Winston.
- Khatri N., Budhwar, Pawan, & Chong TF (1999). *Employee Turnover: Bad Attitude or Poor Management?* Singapore: Nanyang Technological University.
- Khoo, H.A. *From Classroom to the Boardroom*. Malaysian Business, 1981, pp. 18-22.

- Kidder, L.H. & Judd, C.H. (1986). *Research Methods in Social Relation*. New York: Holt, Rinehart and Winston.
- Kingston-Mann, E. & Timothy, R. S. (2001). *Achieving Against the Odds: How Academics Become Teachers of Diverse Student*. Philadelphia: Temple University Press.
- Kondo, A. (2007). Does the first job really matter? State dependency in employment status in Japan. *J. Jap. Int. Econs.* 21(3): 379-402.
- Krejcie, R. & Morgan, D. (1970). Determining sample size for research activities. *Educational and Psychological Measurement.* 30: 607-610.
- Kristensen, T.S. (1995). The demand-control-support model: Methodological challenges for future research. *Stress Medicine.* 11: 17-26.
- Kristensen, T.S. (1996). Job stress and cardiovascular disease: a theoretic critical review. *Journal of Occupational Health Psychology.* 1(3): 246-60.
- Kusku, F. (2003). Employee satisfaction in higher education: The case of academic and administrative staff in Turkey. *Career Development International.* 8(7): 347-356.
- Lahey, B. & Cohen, S. (2000). Social Support Theory and Measurement. In S. Cohen, L. Underwood, and B. Gottlieb (Eds.). *Social Support Measurement and Intervention: A Guide for Health and Social Scientists* (pp. 29-52). New York: Oxford University Press.
- Langer, E. (1983). *The Psychology of Control*. California: Sage Publications, Inc.
- LaRocco, J.M., House, J.S. & French, J.R. (1980). Social support, occupational stress, and health. *Journal of Health and Social Behavior.* 21(3): 202-18.
- Latif, D.A. & Grillo, J.A. (2001). Satisfaction of junior faculty with academic role functions. *Am J Pharm Educ,* 65:137-44.
- Lee, T. & Mitchell, T. (1991). The unfolding effects of organizational commitment and anticipated job satisfaction on voluntary employee turnover. *Motivation and Emotion.* 15: 99-121.

- Lee, T. & Mitchell, T. (1994). An alternative approach: The unfolding model of voluntary employee turnover. *Academy of Management Review*. 19(1): 51-89.
- Lee, T. & Mowday, R. (1987). Voluntarily leaving an organization: An empirical investigation of Steers and Mowday's model of turnover. *Academy of Management Journal*. 30(4): 721-743.
- Lee, T. (1996). Why Employees Quit. In L. Beach (Ed.). *Decision Making in the Workplace* (pp. 73-90). Hillsdale, NJ: Lawrence Erlbaum.
- Leiter, M.P. & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior*. 9: 297-308.
- Leung, D.Y.P. & Lee, W.W.S. (2006). Predicting intention to quit among Chinese teachers: differential predictability of the components of burnout. *Anxiety, Stress and Coping*. 19(2): 129-141.
- Lindholm, J., Astin, A., Sax, L. & Korn, W. (2002). *The American College Teacher: National Norms for the 2001-02 HERI Faculty Survey*. Los Angeles: Higher Education Research Institute, University of California Los Angeles.
- Lingard, H. (2003). The impact of individual and job characteristics on 'burnout' among civil engineers in Australia and the implications for employee turnover. *Construction Management & Economics*. 21(1): 69-80.
- Lovullo, W. (2005). *Stress and Health: Biological and Psychological Interactions*. 2<sup>nd</sup> Ed. Thousands Oak, London: Sage Publications.
- Maimunah Ismail & Lawrence Arokiasamy (2007). Exploring mentoring as a tool for career advancement of academics in private higher education institutions in Malaysia. *The Journal of International Social Research*. 1(1): 135-148.
- Mathieu, J. & Zajac, D. (1990) A review and meta-analysis of the antecedents, correlates and consequences of organizational commitment. *Psychological Bulletin*. 108: 171-194
- Matier, M.W. (1990). Retaining faculty: A tale of two campuses. *Research in Higher Education*. 31: 39-61.



- McGee, G.W. & Ford, R.C. (1987). Faculty research productivity and intention to change position. *Review of Higher Education*. 11: 1-16.
- Mincer, J. (1971). *Schooling, Age, and Earnings*. New York: National Bureau of Economic Research.
- Ministry of Higher Education, Malaysia. The Registration Standards Institution Management sector Department of Higher Education. (2011, November 9). Malaysia. *List of IPTS*. Retrieved February 6, 2012, from <http://jpt.mohe.gov.my/menudirektori.php>
- Mobley, W.H. & Hollingsworth, A. (1978). An evaluation of precursors of hospital employee turnover. *Journal of Applied Psychology*. 63(4): 408-414.
- Mobley, W.H. (1977). Intermediate linkage in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*. 62: 237-240.
- Mobley, W.H. (1982). *Employee Turnover: Causes, Consequences, and Control*, Addison-Wesley. Reading: MA.
- Mobley, W.H., Griffeth, R., Hand, H. & Meglino, B. (1979). A review and conceptual analysis of the employee turnover process. *Psychological Bulletin*. 86: 517-532.
- Mobley, W.H., Griffeth, R.W., Hand, H. & Meglino, B.M. (1979), Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*. 62: 493-522.
- Mohamed, F., Taylor, G.S. & Hassan, A. (2006). Affective commitment and intent to quit: The impact of work and non-work related issues. *Journal of Managerial Issues*. 18: 512- 529.
- Mohd. Kamel Idris (2009). *Occupational Stress in Academic Life: A Study of Academics of Malaysian Public Universities*. Unpublished doctoral dissertation, University of Waikato, New Zealand.
- Moore, K.M. & Gardner, P.D. (1992). *Faculty in a Time of Changes: Job Satisfaction and Career Mobility*. East Lansing: Michigan State University.
- Moore, K.M. & Twombly, S.B. (1990). Administrative careers and the marketplace: Toward the year 2000. *New Directions for Higher Education Series*. 18(4).

- Moore, K.M. (1983). *Leaders in Transition- A National Study of Higher Education Administrators*. University Park, PA: Center for the Study of Higher Education, The Pennsylvania State University.
- Mor Barak, M.E., Nissly, J.A. & Levin, A (2001). Antecedents to retention and turnover among child welfare, social work, and other human service employees: What can we learn from past research? A review and meta-analysis. *Social Service Review*. 75(4): 625-659.
- Morris, D., Wood, G. & Yaacob, A. (2004). Attitudes towards pay and promotion in the Malaysian higher educational sector. *Employee Relations*. 26(2): 137-151.
- Mowday, R.T., Porter, L.W. & Steers, R.M. (1982). *Employee-Organization Linkages: The Psychology of Commitment, Absenteeism, and Turnover*. New York: Academic Press.
- Mustapha, R. & Abdullah, A. (2004). Malaysia transition towards knowledge based economy. *The Journal of Technology Studies*, 51-61.
- Neumann, Y. & Finally-Neumann, E. (1990). The support-stress paradigm and faculty research publication. *The Journal of Higher Education*. 61(5): 565-580.
- Noble Jr., J.H. (2000). Cherchez l'argent: A contribution to the debate about class size, student-faculty ratios, and use of adjunct faculty. *Journal of Social Work Education*. 36(1): 89-102.
- Norusis, M. (2008). *SPSS Statistics 17.0: Guide to Data Analysis*. Upper Saddle River, NJ: Prentice Hall.
- Nunnally, J.C. (1978). *Psychometric Theory. Second Edition*. Boston, MA: McGraw Hill.
- O'Driscoll, M.P. & Beehr, T.A. (1994). Supervisor behaviors, role stressors and uncertainty as predictors of personal outcomes for subordinates. *Journal of Organizational Behavior*. 15(2): 141-154.
- O'Meara, K.A. (2004). Beliefs about post-tenure review: The influence of autonomy, collegiality, career stage, and institutional context. *The Journal of Higher Education*. 75(2): 178-202.



- Ongori, H. (2007). A Review of the Literature on Employee Turnover. *African Journal of Business Management*.
- Pal, S. & Saksvik, P.O. (2008). Work-family conflict and psychosocial work environment stressors as predictors of job stress in a cross cultural study. *International Journal of Stress Management*. 15: 22-42.
- Pallant, J. (2001). *SPSS Survival Manual: A Step By Step Guide to Data Analysis Using SPSS for Windows (Version 10)*. Australia: Allen and Unwin.
- Papin-Ramcharan, J.I. & Dawe, R.A. (2006). Open access publishing: a developing country view. *First Monday – The Journal* at [http://www.firstmonday.org/issues/issue11\\_6/papin/index.html](http://www.firstmonday.org/issues/issue11_6/papin/index.html) (2006).
- Pare, G. & Tremblay, M. (2007). The influence of high-involvement human resources practices, procedural justice, organizational commitment, and citizenship behaviors on information technology professionals' turnover intentions. *Group & Organization Management*. 32: 326-357.
- Peiro, J.M., Gonzalez-Roma, V., Tordera, N. & Manas, M.A. (2001). Does role stress predict burnout over time among health care professionals? *Psychology & Health*. 16(5): 511-525.
- Perez, J.R. & Orodomez de Pablos, P. (2003). Knowledge management and organizational competitiveness: A framework for human capital analysis. *Journal of Knowledge Management*. 7(3): 82 – 93.
- Perkin, H. (1969). *Key Profession*. London: Routledge and Kegan Paul.
- Perrewe, P. & Ganster, D. (1989). The impact of job demands and behavioral control on experienced job stress. *Journal of Organizational Behavior*. 10: 213-229.
- Polit, D.F. & Beck, C.T. (2004). *Nursing Research (7th Ed.)*. Philadelphia: J.B. Lippincott Company.
- Pollicino, E.B. *Faculty Satisfaction with Institutional Support as a Complex Concept: Collegiality, Workload, Autonomy*. Paper presented at the meeting of The American Educational Research Association, New York, April 1996.

- Porter, L.W. & Steers, R.M. (1973). Organizational, work, and personal factors in employee turnover and absenteeism. *Psychological Bulletin*. 80: 151–176.
- Price, J.L. & Bluedorn, A.C. (1980). Test of a Causal Model of Turnover from Organizations. In D. Dunkerley and G. Salaman (eds.). *International Yearbook of Organization Studies 1979* (pp. 217-236). London: Routledge & Kegan Paul.
- Price, J.L. (1977). *The Study of Turnover*. Ames: The Iowa State University Press.
- Price, J.L. (1989). The impact of turnover on the organization. *Work and Occupations*. 16: 461-473.
- Price, J.L. (1997). Handbook of organizational measurement. *International Journal of Manpower*. 18(4): 305-558.
- Racz, S. (2000). Finding the right talent through sourcing and recruiting. *Strategic Finance*. 82-38.
- Rees, A. & Schultz, G. (1970). *Workers and Wages in an Urban Labor Market*. Chicago: University of Chicago Press.
- Rhoades, L., Eisenberger, R. & Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of Applied Psychology*. 86(5): 825-836.
- Rizzo, J.R., House, R.J. & Lirtzman, S.I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*. 15: 150-163.
- Rosenfeld, R. & Jones, J. (1988). Exit and re-entry in higher education. In D.W. Breneman and T. Youn (eds.). *Academic Labor Markets and Careers* (pp. 74-97). New York: Falmer.
- Rosser, V.J. (2004). Faculty members' intentions to leave: A national study on their worklife and satisfaction. *Research in Higher Education*. 45(3): 285-309.
- Sagaria, M.A. & Johnsrud, L.K. (1992). Administrative promotion: The structuring of opportunity within the university. *Review of Higher Education*. 15(2): 191-211.
- Schabracq, M.J., Cooper, C. & Winnubst, J. (1996). Work and Health Psychology: Towards A Theoretical Framework. In M. Schabracq, J. Winnubst & C. Cooper

(Eds.). *Handbook of Work and Health Psychology* (pp.3-29). New York: John Wiley & Sons.

- Schaubroeck, J., Cotton, J.L. & Jennings, K.R (1989). Antecedents and consequences of role stress: A covariance structure analysis. *Journal of Organizational Behavior*. 2(1): 35-58.
- Schaufeli, W.B., Van Dierendonck, D. & Van Gorp, K. (1996). Burnout and reciprocity: Towards a dual-level social exchange model. *Work & Stress*. 10: 224-237.
- Schnall P.L, Landsbergis P.A. & Baker D. (1994). Job Strain and Cardiovascular Disease. *Annual Review of Public Health*. 15: 381-411.
- Scott, R.A. (1978). *Lords, Squires and Yeoman: Collegiate Middle Managers and Their Organizations*. ASHE-ERIC/ Higher Education Research Report No. 7. Washington, D .C.: American Association for Higher Education.
- Sekaran, U. (2000). *Research Methods for Business: A Skill-Building Approach, Third Edition*. New York: John Wiley and Sons, Inc.
- Sekaran, U. (2003). *Research Methods for Business: A Skill-Building Approach, Fourth Edition*. New York: John Wiley and Sons, Inc.
- Selye, H. (1976). *Stress in Health and Disease*. Boston, MA: Butterworth.
- Sharpley, C.F., Reynolds, R., Acosta, A. & Dua, J.K. (1996). The presence, nature and effects of job stress on physical and psychological health at a large Australian university. *Journal of Educational Administration*. 34(4): 73-86.
- Shaughnessy J.J. & Zechmeister E.B. (1997). *Research Methods in Psychology, (4th Ed.)*. New York: McGraw-Hill.
- Shaw, J.D., Duffy, M.K., Johnson, J.L. & Lockhart, D.E. (2005). Turnover, social capital losses, and performance. *Academy of Management Journal*. 48: 594-606.
- Siegall, M. & McDonald, T. (2004). Person-organization value congruence, burnout and diversion of resources. *Personnel Review*. 33(3): 291-301.

- Siong Z.M.B, et al. (2006). Predicting Intention to Quit in the Call Center Industry: Does the Retail Model Fit? *Journal of Managerial Psychology*. 21(3): 231-243.
- Slattery, J.P. & Selvarajan, T.T. (2005). Antecedents to temporary employee's turnover intentions. Paper submitted for the Organizational Behavior and Organizational Theory track at the arch 31-April 2, Midwest Academy of Management's Annual Meeting.
- Smart, J.C. (1990). A causal model of faculty turnover intentions. *Research in Higher Education*. 31: 405-424.
- Smith, C.A. & Lazarus, R.S. (1990). Emotion and Adaptation. In L. A. Pervin (Ed.). *Handbook of Personality: Theory and Research* (pp. 609-637). New York: Guilford.
- Soderfeldt, B., Soderfeldt, M., Muntaner, C., O'campo, P., Warg, L. & Ohlson, C. (1996). Psychosocial work environment in human service organizations: A conceptual analysis and development of the demand-control model. *Social Science & Medicine*. 42 (9): 1217-1226.
- Sohail, S. & Saeed, M. (2001). Private higher education in Malaysia: A study of students' satisfaction levels and its strategic implications. *Academy of Marketing Conference*.
- Sonnetag, S. & Frese, M. (2003). Stress in Organizations. In W.C. Borman, D.R. Ilgen & R.J. Klimoski (Eds.). *Comprehensive Handbook of Psychology, Vol. 12: Industrial and Organizational Psychology* (pp. 453-491). New York: Wiley.
- Spector, P. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations*. 39: 1005-1016.
- Spector, P. (1998). A control theory of the job stress process. In C. Cooper (Ed.). *Theories of Organizational Stress* (pp. 153-169). United Kingdom: Oxford University Press.
- Spector, P. (2002). Employee control and occupational stress. *American Psychological Society*. 11(4): 133-136.
- Staw, B.M. (1980). The consequences of turnover. *Journal of Occupational Behavior*. 1: 253-273.

- Steel, R.P. & Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology*. 69: 673–686.
- Steers, R.M. & Mowday, R. (1981). Employee turnover and post decision accommodation processes. In L. Cummings and B. Staw (eds.). *Research in Organizational Behavior* Vol. 3 (pp. 235-281). Greenwich, CT: AI Press.
- Stevens, J. (2002). *Applied Multivariate Statistics for the Social Sciences* (4th Edition). Mahwah, NJ: Laurence Erlbaum Associates.
- Tabachnick, B. & Fidell, L. (2001). *Using Multivariate Statistics* (4<sup>th</sup> Edition). Needham Height, MA, USA: Allyn and Bacon.
- Tan, F.M. (2008). Linking Career development practices to turnover intention: The mediator of perceived organizational support. *Journal of Business and Public Affairs*. 2(1): 1-20.
- Taris, T.W., Schreur, P.J.G. & Van Iersel-Van Silfhout, I.J. (2001). Job stress, job strain, and psychological withdrawal among Dutch university staff: Towards a dual process model for the effects of occupational stress. *Work & Stress*. 15: 283-296.
- Tek -Yew Lew (2009). The relationships between perceived organizational support, felt obligation, affective organizational commitment and turnover intention of academics working with private higher educational institutions in Malaysia. *European Journal of Social Sciences*. 9(1): 72-87.
- Tett, R. & Meyer, J. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta-analytic findings. *Personnel Psychology*. 46(2): 259-293.
- The Role of University Today: Critical Partners In Economic Development and Global Competitiveness: ICF Consulting, 2003.
- Theorell, T. & Karasek, R. Jr. (1996). Current issues relating to psychosocial job strain and cardiovascular disease research. *Journal of Occupational Health Psychology*. 1 (1): 9-26.

- Thoits, P.A. (1983). Multiple identities and psychological well-being: A reformulation and test of the social isolation hypothesis. *American Sociological Review*. 48: 174-187.
- Tight, M. (2003). *Researching Higher Education (1st Edition)*. Maidenhead: Open University Press.
- Triantafillou, P. (2004). From blood to public office: Constituting bureaucratic rulers in colonial Malaya. *Journal of Southeast Asian Studies*. 35: 21-40.
- Trower, C.A. (2005). Socrates, Thoreau, and the Status Quo. TIAA-CREF
- Uda Nagu, S. International students: Facing new realities. *The Sunday Times, Learning Curve*, October 21, 2007, pp. 2.
- Van Emmerik, I.H., Euwema, M.C. & Bakker, A.B. (2007). Threats of workplace violence and the buffering effect of social support. *Group & Organization Management*. 32(2): 152-175.
- Van Staden, F., Boon, C. & Dennill, I. (2001). Research and publication output: A survey of the Psychology Department at UNISA. *South African Journal of Psychology*. 31(3): 50-56.
- Van Vegchel, N., de Jonge, J., Soderfeldt, M., Dormann, C. & Schaufeli, W.B. (2004). Quantitative versus emotional demands among Swedish human service employees: Moderating effects of job control and social support. *International Journal of Stress Management*. 11(1): 21-40.
- Vandenberg, R.J. & Scarpello, V. (1990). The matching model: An examination of the processes underlying realistic job previews. *Journal of Applied Psychology*. 75: 60-67.
- Vaux, A. (1988). *Social Support: Theory, Research, and Intervention*. New York: Praeger.
- Viswesvaran, C., Sanchez, J. & Fisher, J. (1999). The role of social support in the process of work stress: A meta-analysis. *Journal of Vocational Behavior*. 54: 314-334.



- Watrous, K.M., Huffman, A.H. & Pritchard, R.D. (2006). When Coworkers and Managers quit: The effects of turnover and shared values on performance. *Journal of Business and Psychology*. 21(1): 103-126.
- Weiss, R. (1974). The Provisions of Social Relationships. In Z. Rubin (Ed.). *Doing Unto Others* (pp. 17-26). Englewood Cliffs, NJ: Prentice Hall.
- Weiss, R. (1998). A taxonomy of relationships. *Journal of Social and Personal Relationships*. 15: 671-683.
- Wilke, P. & Gmelch, W. *Toward a Comprehensive View of Faculty Stress in Higher Education*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans. April 1988.
- Winefield, A.H. (2000). Stress in Academe. Some Recent Research Findings. In D.T. Kenny, J.G. Carlson, F.J. McGuigan and J. L Sheppard (Eds.). *Stress and Health: Research and Clinical Application* (pp. 437-446). Sydney: Harwood.
- Winnubst, J., de Jong, R. & Schabracq, M. (1996). The Diagnosis of Role Strains at Work: The Dutch Version of The Organizational Stress Questionnaire. In M. Schabracq, J. Winnubst and C. Cooper (Eds.). *Handbook of Work and Health Psychology* (pp. 105 -125). New York: John Wiley & Sons.
- Witt, S. & Lovrich, N. (1988). Sources of stress among faculty: Gender differences. *Review of Higher Education*. 11(3): 269-284.
- Woods, R.H. & Macaulay, J.F. (1989). Rx for turnover: retention programs that work. *Cornell Hotel and Restaurant Administration Quarterly*. 30(1): 79-90.
- Xu, J.X. (2008). Faculty turnover: Discipline-specific attention is warranted. *Research in Higher Education*. 49(1): 40-61.
- Yadori, Y. & T. Kato (2007). Average employee tenure, voluntary turnover ratio and labor productivity: Evidence from Japanese firms. *International Journal of Human Resource Management*. 18(1) 1841-1857.
- Zammuto, R.F. (1986). Managing decline in higher education. In: J.C. Smart (ed.). *Higher Education: Handbook of Theory and Research Vol. 2*(pp. 43-84). New York: Agathon.

Zhou, Y. & Volkwein J.F. (2004). Examining the influences on faculty departure intentions: A comparison of tenured versus nontenured faculty at research universities using NSOPF-99. *Research in Higher Education*. Vol. 45(2): 139-176.

