

## **The Mediating Role of Leadership Management on the Performance of Selected University Knowledge Workers in Malaysia**

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### **ABSTRACT**

This study has identified standards of foundation and skills including leadership management as mediator to evaluate the performance of the relationship between modern required skills for knowledge workers in academic universities in Malaysia *vis-a-vis* the performance level. The study has revealed some skills that need to be commanded by each professional knowledge worker in academic universities in Malaysia. The major and basic skills suggest that knowledge workers must have adequate knowledge of Interpersonal Skills (IS), Information Technology Skills (IT) and Leadership and Management Skills (LMS). They also need to be conversant with organizational mission and objectives. Moreover, the direct effects from Interpersonal Skills (IS), Information Technology Skills (IT) and Leadership Management Skills (LMS) were ranked as highly important. We have revealed the gap between the current and required performance, in addition to the role of leadership management as mediator, in such a way that could strengthen the relationship. The study had some managerial and theoretical contributions. An academic knowledge workers in Malaysia should have a wide range of competencies and skills, both core and generic. In addition to having some important knowledge and gain formal learning knowledge from schools which consider not having much effect on the performance among knowledge workers in academic university in Malaysia, recruiters and managers could get a holistic view of the prevailing conditions in the labor market, such as current salaries, duties assigned to specific job roles, most desired skills and qualifications related to a particular positions. The present study has provided the groundwork for redefining the performance for knowledge workers work and will be an asset for recruiters and managers to be up-to- date with the required skills in the digital era, in addition to these set of standers that the researcher has applied using Carl model. Malaysia can also help with the evaluation of existing education programs in school knowledge workers, which make us defended the knowledge worker profession at the present time.

*Keywords: Knowledge workers, Leadership management, Performance*

## **RESEARCH OVERVIEW**

Recently, there have been some expansions in “information communication technologies (ICT)” that have modernized the competencies of information management in academic knowledge workers center globally. Academic knowledge workers have been encountering many challenges in their profession because of the constant technological changes pertaining to the development of information technologies throughout the World Wide Web.

We try to examine the skills required of professional positions involved in digital resources, services, and technologies along with changing aspects in academic knowledge workers center. This research is about how the role of knowledge workers in academic universities has been changing in today's 'high tech' age. Starting from the knowledge workers' knowledge and work, we attempt to identify the skills required for modern knowledge workers as they are being mediated with the leadership skills (Lo, Chiu, Goel, & Yang, 2015).

The assumptions are that as technology changes the works of knowledge workers and support staff increase exponentially, whereas modern technologies for example the database information, WWW, and the open source for library integrated systems, expand consistent the quality and quantity of the availability of information. There is some prerequisite for better skills in resource management and information, where critically such resources take account of people (Haddow, 2012).

## **BACKGROUND OF THE PROBLEM**

Before ideas are established, it is important to reach a consensus among employees (Ruiz, J. et al., 2016) This involves more than providing rational details for change, but also it is essential to determine “an emotionally compelling case” (Banks, G. C., et al., 2016) If a change is agreed upon but deprived of evidence, there is no need for such change, especially when the status quo is no longer feasible, and that people are unlikely to engage with the planned changes (Broady-Preston, 2012) This arrangement is vital for organizational existence, as Kont (2013) declares, that academics must stay forward of their developing environment if they want to flourish. The advanced technology era arising from the digital revolution at the beginning of the 1980's, has intensely affected the people, although a lot of them are still not responsive to the revolution, despite that it has spread into our everyday lives. This revolution is the new modern library, and it is here that a lot of most deep effects are (Sun, 2011).

The high technology era has supported the growth of the main three key areas that are important in any contemporary library: the computer, the World Wide Web, and the local area network. The computer has allowed the improvement of software of all categories, starting from word processing Microsoft to spreadsheets and databases management and desktop publishing. The LAN has allowed computers and workplaces to share the means and resources locally and to connect with each other. Furthermore, the growth of software for instance (email and file transfer), the World Wide Web has allowed information thought on computers to be shared globally. (Seeman, 2015).

Now the Information is open instantly to anyone who knows how to look for it. In principle, for all this while, a world library has occurred in the part of a lifetime, and so it would be no wonder to us that its influence has left many knowledge workers seeing the effects of these ups and downs upon the way they worked and practiced. The amount of change is ever growing. To manage this change, people get themselves involved as long as information services are provided and as long as the knowledge workers who use these

services are willing to familiarize with the new technologies (Johnson, 2011). As knowledge workers center are centers to disseminate information, it is logical that they do, and will continue to do, as a key role in their change process.

As long as a library continues developing and adjusting to technological changes with new models, things will be changed. Academic knowledge workers center must always keep changing according to changing conditions on both sides of information providers and users. An up-to-date library, which offers old-style 'paper' services as well as a whole variety of electrical multi-media services, for example video, audio and CDs, has assisted the knowledge workers to deliver a variety of services. To continue being productive, it has to recruit more manpower or to teach the employees accordingly, especially within the shortage of computer science expertise. Today resources are dedicated to not only giving extra information but also on the services to keep the technology that will permit the right of access to information and knowledge (Frederick, 2016).

Being ahead of technological modernization, for example, digitization, Wikis electronic publishing, Web 2.0, RSS, Blogs, SMS, Library 2.0 Podcasting, Mashups web application in web development or web page, knowledge workers center can use knowledge from more than one source. For instance, to make a single new facility appeared in only graphical edge, library operators could use the URL and photographs of their library divisions with a Google map to make a map mash up. A folksonomy is a structure in which users can relate public tagging to accessible items, normally to help them redefining those applications. For example OSS (open source software), Open Access (OA) are free access rights and freedom to read research, usually online, and preferably with the aptitude to use again without deprived limit (Boateng, 2014).

## **PROBLEM STATEMENT**

A number of improvements in the performance of library professionals have taken place and several more are expected to follow these changes, which could possibly influence the working environments of knowledge workers. Chawner (2013) indicated that, the basic information and knowledge of library science can be taught through training and formal education. They also examined in their research of major core knowledge workership pertaining to professional competencies and skills in modern society. There are yet educational and skills gap among information curriculum knowledge learned from schools and colleges of library science. Those skills and competencies are required by the actual labor market where the researchers focus on academic knowledge workers center (Rehman, 1997). This will lead us to the research problems statement namely: "What are the key competencies and skills recommended for a new model of Library Information System (LIS) professionals in the digital era, where such competencies will affect the performance effectively and efficiently. (Raju, 2014)

Such circumstances above turn into critical event where LIS professionals have to challenge other LIS professionals in the information digital era. Furthermore, undergraduate and postgraduate students come to the university with their information-seeking strategies and customs that have been already developed and with expertise linked to the new technologies and resources. In such circumstances their needs for information are not all the time sufficiently given attention. Furthermore, to their classical library skills, knowledge, and competencies many LIS professionals hope to add further competencies and skills needed to work within the information digital era. It is in this relationship that this study tries to explore the competencies, which have been approved by the American Library Associations (ALA), Canadian Library Association (CLA), and many other library associations around the world.

Such competencies can be considered the outcome that can affect the performance of knowledge workers in the digital era. This study will help determine the leadership management skills and other factors that can affect the performance of knowledge workers in the academic Malaysian universities (Gerolimos, 2015).

## **RESEARCH OBJECTIVES**

With the above problem statement as the backdrop, the research objectives are set as follows:

1. To investigate the current status of Interpersonal Skills, Information Technology, Leadership Management Competency and librarian's performance among Academic University Knowledge workers in Malaysia (Descriptive Statistics).
2. To determine the important predictors / determinants of librarian's performance among Academic University Knowledge workers in Malaysia (Path Analysis: H1, H2, H3, H4, H9).
3. To investigate the important predictors / determinants of Leadership Management among Academic University Knowledge workers in Malaysia (Path Analysis: H5, H6, H7, H8).
4. To investigate the mediation effects of Leadership Management on the relationships between, Interpersonal skills, and Information Technology with librarian's performance (Mediation (Median) Analysis: H10, H11, H12, H13).

## **RESEARCH QUESTIONS**

1. What is the current status of Interpersonal skills, Information Technology, Leadership Management competency and librarian's performance among Academic University Knowledge workers in Malaysia? (What is collection development?)
2. What are the important predictors/determinants of performance among Academic University Knowledge workers in Malaysia?
3. What are the important predictors/determinants of leadership management competency among Academic University Knowledge workers in Malaysia?  
Does Leadership Management mediate the relationships between Foundational Knowledge, Interpersonal skills, Collections Development and Information

## **FACTORS AFFECTING PERFORMANCE**

### **Information Technology**

The term information technology can be construed as cooperative terminology for numerous complicated technologies in dealing with conveying information that might comprise calculating, telecommunicating then microelectronics. Information technology has also been well defined for example "the application of computers and other technologies in acquisition, organization, storage, retrieval, and dissemination of information" Additionally, information technology means "the use of hardware and software for efficient management of information i.e. storage, retrieval, processing, communication, diffusion and sharing of information" Mohsenzadeh (2012). In this respect, we accept as true that information technology is the biggest supporter to knowledge in this age, in addition that it can be defined in terms of a variety of novel technologies, together with all usage features

including CPUs, microcomputer automated devices, satellite television, www network in addition to communication technology revolution. The things that ought to be observed in the current studies, the information technology includes CPUs, information databases in both cases off-line or on-line, information networks similar to internet, intranet as well as Rosenet, digital-resources together with digital books, digital journals, digital dissertations, digital software including hardware devices (i.e. information infrastructure design), in addition to information special facilities (e.g. selective distribution of information, present awareness facilities, bench of content facilities, bulletin board facilities, digital reference counter and lots more (Mohsenzadeh, 2012).

Traditionally, academic knowledge workers center have served and performed their duties of collection development, user instruction, reference services and current awareness services using physical materials to provide information to users. However, with the advent of information and communication technology (ICT), knowledge workers center and knowledge workers need to be aware of and understand this new dimension to their services. Today, publics practice the world wide web as a main basis of information, frequently trusting on normal books as a last option because of matters of time and spend in addition to money. If we see the structure of knowledge workers center now offering plenty of space for public computer services, in addition to knowledge workers experiencing extra exercise to be well prepared to handle the requests connected to contemporary research methods in addition to Internet resources. In addition to the old-style inquiries involving searching and borrowing books from the shelf, the old style of doing the archiving as well as recording are too electronic, foremost to a more well-organized and effective borrowing and returns structure system in addition to the faster technique of finding resources and measuring the availability of books and materials (Ayoku, 2015)

The key trends driving education technology, as identified in the 2012 Horizon Report of the ACRL Research Planning and Review Committee (2012), are equally applicable to academic knowledge workers center in terms of user desire for access to information and social media, and network anytime/anywhere, acceptance and adoption of cloud-based technologies, more values are placed on collaboration and new education paradigms which include online and hybrid learning with a new emphasis on challenge-based and active learning. Additionally, knowledge workers are often required to collaborate with the faculty to teach information literacy skills for students (Reyes, 2006). Thus, specialized job responsibilities are emerging to handle new position demands and new opportunities.

The above developments call for new skills and knowledge acquisition relevant to the IT environment. For example, the development of a digital collection requires the traditional skills of collection development, as well as the newer skills of server setup and maintenance, while developing and managing a website may require knowledge of programming languages, such as JavaScript and Perl, and networking concepts, such as IP addresses and server operating systems. (Ayoku, 2015)

## **Leadership Management**

For a long time, leadership science and management science were separate disciplines. In fact, leadership and management are inseparable and have dynamic complementary functions to each other. From a logical point of view, both the concepts of leadership and management are within the framework of organizational management. From a practical point of view, a good combination of them can play a positive role in leadership and management. So, leadership and management are two basic functions of organizational management, and leaders and managers are organizational managers. Leadership and

management cannot be separated in theory and practice. Leadership science and management science should be organically integrated to form one leadership management science (Vom, 2014).

Leadership management science has many sub-disciplines, such as strategic leadership management, the art of leadership management methodology, leadership management relations, leadership management decision-making, and leadership personnel management. It can also make further study of grassroots leadership management, leadership management of public security and the judiciary, leadership management of military defense, financial leadership management, educational leadership management, and health service leadership management. However, the effective leadership management activities must carry out general and systematic research into a variety of factors that influence the leadership management process and the relationship between those factors, which can help form a realistic basic theory as well as rational decision-making activities of leadership management. (Gini, 2014)

Effective leadership management must be multidisciplinary. Overall, as an integrated science, the main task of leadership management is to study management activities and their laws in certain organizational operations. Leadership management is a very practical discipline composed of management, sociology, psychology, leadership, and social psychology. Management is a comprehensive discipline of studying people and organizations, and it is a very complex science management using principles of sociology, anthropology, operations research, psychology and other social sciences. It can also undertake a macro-study on the occurrence of problems in various organizations, the laws of development, and management on the basis of those laws.

Management is at the core of an organization. It has been put forward that modern management with eight basic elements can be divided into two categories. The first category is that of the methods of management, which include three elements: institutions, laws, and managers, The second category is that of contents management, which include five elements: people, property, materials, information, and time, Here, people assume two responsibilities which are on one hand a method of leadership management, and on the other an object, or a part of the contents of leadership management. The time mentioned here is continuous and irreversible. Today's management believes that scientific management is to correctly and effectively deal with these elements and their mutual relations, in order to achieve the basic aims of management. Scientific management includes seven principles: the system principle; the overall division and integration principle; the feedback principle; the closed principle; the energy level principle; the flexibility principle; and the power principle. This means that in modern society, everyone in the system is divided into various levels. They are both within their own system, and they produce various forms of input and output alongside other systems. Yet, they also exist within the unified context of a larger system. Therefore, a full analysis of the system must be conducted in order to achieve optimized management. (Di Schiena, 2013)

The overall division and integration principle refers to the fact that a modern and efficient management should make a clear division of labor in overall planning, and should also create effective integration based on this division of labor. With the overall concept as the major premise and the division of labor as the key, the scientific division of labor can constitute a modern and orderly system, the feedback principle. This refers to the fact that the control system conveys the information output, and which then sends back some results which in turn have an impact on the information output again, thus playing a controlled role to achieve a desired purpose. The increasingly growing functional results are called positive feedback; and the increasingly shrinking ones are called negative feedback. The cause produces the results that form new causes; the new causes produce new results. This process

is endless. Feedback serves as a bridge between causes and effects, the closed principle. This means the methods of management within any system must form a continuously closed loop, so as to form effective management activities and achieve a freely absorbing, processing and working output. Open management is just a circuit that is not a loop. Even if it is integrated into the network, it will be unable to generate electricity. (Larrea, 2017)

Next is the capability level principle, which refers to a classification of management in accordance with the amount of energy. Classification establishes a certain order, a certain norm, and a certain standard. Energy level of management must be established according to its level and must have a stable structure. Different energy levels should show different levels of authority, material interests and a spirit of honor. Authority, material interests and a spirit of honor are the external manifestation of energy. Only by corresponding to the energy level does management meet the energy level principle. In other words, when you hold a position, you need to consider policies, exert authority, fulfill duties, gain honors and punish mistakes. In this way, effective management can be achieved. (Bauer, 2015)

The flexibility principle means that management must maintain sufficient flexibility to adapt to various possible changes of the objective external world in a timely manner, so as to implement dynamic management. Management flexibility is divided into two categories, namely local flexibility and overall flexibility, the power principle. This means that management must have strong power that is applied correctly, so that effective and sustainable management can ensue. The kind of power referred to here is a broad concept that refers not only to management energy, but is also a constraining factor without which management cannot take charge in an orderly manner. The significance of power lies not only in the management running an organization, but also running it in a specific way. Power is usually divided into three categories, namely material power, spiritual power and information power. (Belias, 2015)

## **Interpersonal Skills**

Human resource development (HRD) professionals and management educators recognize the importance of interpersonal skills for the selection, assessment, training and development of managers and supervisors (Becker et al., 2001). MBA recruiters have noted that skills such as communication and conflict management are among the most sought after from new hires, yet also among the most scarce (GMAC, 2014). MBA program critics suggest graduates with strong interpersonal skills are hard to find because these skills are rarely integrated into MBA curriculum (Jenkins and Reizenstein, 1984; Rubin and Dierdorff, 2009; Simpson, 2006; Slater and Dixon-Fowler, 2010). One explanation for why developing interpersonal skills (MIPS) is such a challenge is that there is no widely accepted definition of these skills (Dierdorff et al., 2009; Klein et al., 2006; Navarro, 2008; Riggio, 2010; Riggio and Lee, 2007; Rubin and Dierdorff, 2009).

Defining interpersonal skills began with the need to identify which managerial skills are distinctively interpersonal, Whetten: "I think there is a distinction between interpersonal skills, and decision making, which is mainly cognitive, versus the fact that all managerial skills have a cognitive component. Although there is value in separating those out, they are each important to managers." Rubin: We've distinguished cognitive, conceptual and interpersonal skills in our research, but interpersonal skills are especially elusive. You know it when you see it, but it's hard to define. Maybe it's like layers of an onion with a core set of interpersonal skills, upon which other managerial skills rely. Riggio: "We can think about interpersonal skills as building blocks, or as a hierarchy, versus different skill domains. For example, consider basic interpersonal communication formulating messages, listening and interpreting what others say at a rudimentary level." Rubin: Yes, we need to identify a core

set of skills at least as a starting point. If we can't identify what that core is, then we can't walk into a class and say "these are the four keys skills you need to consider as a manager." We need to get a handle on what the core skills are first, before we can teach, develop and select on these skills. Baldwin: I've been thinking about the hierarchy or building blocks of skills Ron (Riggio) mentioned. This highlights the distinction between intrapersonal and interpersonal skills. I believe the center of the core of interpersonal skills is the intrapersonal dimension. Mayes: We have an assessment center at my institution in which we've found in doing assessments of business students that self-awareness is a key antecedent to developing a broader array of interpersonal skills. Riggio: The literature on leadership backs this up. We know leaders with higher self-awareness develop leadership skills faster than those with lower self-awareness.

A preliminary definition of MIPS our expert discussion suggested self-management and communication (cf. Riggio et al., 2003; Robbins and Hunsaker, 2012; Rubin et al., 2002; Tett et al., 2000; Whetten and Cameron, 2011) are foundational to MIPS. Researchers and management educators have described a variety of other "interpersonal" skills including social skills (Riggio, 1986; Mumford et al., 2007), leadership and influence (Dierdorff and Rubin, 2006; Robbins and Hunsaker, 2012), political skills (Ahearn et al., 2004; Ferris et al., 2005), and negotiation and conflict management skills (De Dreu et al., 2001; Gist et al., 1991; Mumford et al., 2007). As a preliminary definition of MIPS, "we integrate the preceding discussion with research and educational literature on managerial skills to propose that MIPS include five core skills: self-managing, communicating, supporting, motivating and managing conflict."

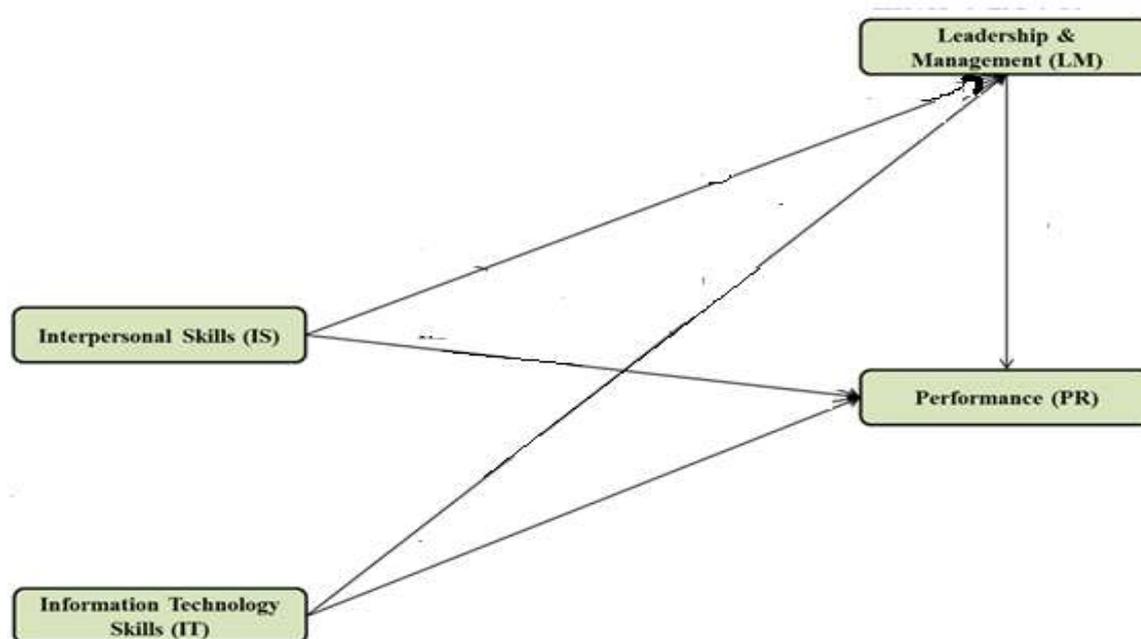
Self-managing involves accurate self-awareness and includes managing emotions. Consistent with research on authentic leadership, we also propose interpersonal ethics (e.g. honesty, integrity) are part of self-managing (Zhu et al., 2011). Communicating is a commonly studied skill in the interpersonal skills literature. Riggio emphasized its interpersonal components include active listening, interpreting non-verbal cues and being clear and concise as critical to effective management. Supporting describes proactive interpersonal relationship development and support, consistent with the supervisor social support literature (Michel et al., 2010). The importance of social support at work is also supported by work-family research (Kossek et al., 2011). Motivating others is a topic in all organizational behavior textbooks that has not traditionally been classified as an interpersonal skill. Consistent with leader-member exchange this skill involves customizing interactions to match peoples' needs and motivational profiles and is important for effective influence (Wallis et al., 2011). Managing conflict is critical due to the inevitability of conflicting priorities, goals and personalities at work (De Dreu et al., 2001; Gist et al., 1991). This skill focuses on de-escalating interpersonal and task conflict and is foundational to negotiating effectively.

Interpersonal skills are non specific kinds of abilities that are appropriate to all levels of administration and are transferrable amongst associations and crosswise over businesses. Interpersonal skills advantage directors and the organizations that contract them since high caliber, relational abilities will enable people to get and explore the mores of a particular association and the business when alternate kinds of abilities might need. Conversely, associations can advance supervisors from inside as a result of their top notch firm-particular information and put resources into building up these chiefs' relational aptitudes. Before making such interests in procuring people from outside of the association who have elevated amounts of relational abilities or advancing representatives inside the association and building up their interpersonal skills, explore is expected to inspect the connection between interpersonal skills and leadership as a result. (Mencl, 2016)

## RESEARCH FRAMEWORK

A conceptual model discusses the possible courses of action of the research idea. It works like a map by giving indications around all conceivable stages of the study, as well as linking the research actions.

Figure 1: Research Hypotheses in Research Structural Model



Source: Calr (2010)

Table 1: Research Hypotheses Codes and Descriptions

Code	Description	Path
<b>Direct Effect of Constructs</b>		
H1	Interpersonal Skills (IS) significantly affects Librarian's Performance (PR)	IS → PR
H2	Information Technology (IT) significantly affects Librarian's Performance (PR)	IT → PR
H3	Information Technology (IT) significantly affects Leadership Management (LM)	IT → LM
H4	Leadership Management (LM) significantly affects Librarian's Performance (PR)	LM → PR
<b>Mediation Effects of Leadership Management (LM)</b>		
H5	Leadership Management (LM) mediates the relationship between Interpersonal Skills (IS) and Librarian's Performance (PR)	IS → LM → PR
H6	Leadership Management (LM) mediates the relationship between Information Technology (IT) and Librarian's Performance (PR)	IT → LM → PR

## **POPULATION AND SAMPLING**

### **Population**

Sampling is to select a sample number from a larger group (population) from which to make inferences about the population (Creswell, 2009). This study adopted a systematic random sampling (Cooper and Schindler, 2011, Creswell, 2009) to randomly to select 250 knowledge workers working at an academic university in Malaysia. Both knowledge workers and their assistants were selected because of their knowledge, experience and have been working in university knowledge workers center, according to recent statistics by The Ministry of Higher Education (MOHE). There are 57 academic universities in Malaysia (MOHE, 2017).

### **Sampling Frame**

Sampling is a mechanism through which a portion of the population or those affected is selected for study. It is selected to represent a larger population. For this research, Table 3.3, indicates what we will use the information needed in the survey from the respondents from the selected academic universities in Malaysia. They are the head knowledge workers or the assistant knowledge workers or both because of their knowledge and experience working in university knowledge workers center.

**Table 2: Population, Sampling Frame, and Respondent Selection**

<b>Population</b>	<b>Sampling Frame</b>	<b>Respondent's Basis of Selection</b>
1,140 knowledge workers	250 knowledge workers	Selected Academic university knowledge workers center

### **Sample Size**

Sample size is critical in statistical analysis. Luck and Rubin (1987) explained that the more complex the analysis the bigger is the sample size required. Using SEM, the sample size of this study consists of a total of 250 participants or 21,92 % out of 1,140 knowledge workers of academic university knowledge workers center in Malaysia. (Sekaran, 2003). The number of knowledge workers have been classified in terms of selected academic university knowledge workers center and location as mentioned in Table 3.4.

**Table 3: Number of Knowledge workers, locations and the percentages**

<b>Name &amp; location</b>	<b>Numbers</b>	<b>Percentages</b>
UUM (Kedah)	12	4.8
UTM (Johor)	14	5.6
MMU (Melaka)	36	14.4
Sunway University (Selangor)	7	2.8
Taylor's university (Selangor)	8	3.2
UM (Selangor)	34	13.6
Universiti Malaysia Sarawak SABAH (East Malaysia)	11	4.4

UNIVERSITI PETRONAS (Perak)	10	4
USM (Penag)	11	4.4
KOHA Malaysians community (ONLINE)	32	12.8
APU library (Selangor)	13	5.2
UIA (Selangor)	37	14.8
MEDIU (Shah Alam)	4	1.6
IUKL library (Kuala Lumpur)	6	2.4
CURTIN (Kuala Lumpur)	6	2.4
UITM (Klang valley)	9	3.6
<b>Total</b>	<b>250</b>	<b>100%</b>

**Table 4: Examining Results of Hypothesized Direct Effects of the Constructs**

Path	Unstandardised Estimate		Standardised Estimate	critical ration (c.r.)	P-value	Hypothesis Result
	Estimate	S.E.	Beta			
IS → PR	0.191	0.067	0.201**	2.865	0.004	H2) Supported
IT → PR	0.18	0.078	0.157*	2.319	0.02	H4) Supported
IS → LM	0.168	0.056	0.2**	3.001	0.003	H6) Supported
IT → LM	0.197	0.065	0.195**	3.021	0.003	H8) Supported
LM → PR	0.218	0.084	0.192**	2.595	0.009	H9) Supported

**Table 5: Summary of Research Implications**

<b>Theoretical</b>	<b>Managerial</b>
<p>The study contributed to the body of knowledge in terms of the current factors that need to be considered while evaluating the performance of knowledge workers worldwide.</p>	<p>Library managers will have a comprehensive understanding about the required competencies that will help in recruiting the library staff manpower by setting and establishing the standers requirement for library employee in the digital and information era.</p>
<p>The results of the research will help in developing a new model for performance among knowledge workers in Malaysia.</p>	<p>The research offers important insights for library manager and head of department so that they can improve the performance of knowledge workers.</p>
<p>It endeavors to recognize the impact of advances technologies upon the library staff and what levels of support are required to make a modern library function</p>	<p>Leadership management is highly influential in the performance of knowledge workers as mediator and therefore should be focused.</p>
<p>This will highlight the developing requirement for trained and skilled staff in areas such as foundation knowledge, interpersonal skills, leadership and management, collection development, information technology skills.</p>	<p>This study emphasizes Leadership Management in the Performance of Academic University Knowledge workers in Malaysia.</p>
<p>We can see the factors that researcher will study and investigate in this study and check the how much they affect to the performance of the librarian.</p>	<p>This study suggested that Leadership management is important thus management, take into consideration this factor to improve the performance of knowledge workers.</p>
<p>Basically this research goals to examine the most modern required skills for knowledge workers in academic university Malaysia with the mediating role of leadership management skills that affect the performance.</p>	

## **THEORETICAL IMPLICATIONS**

The researcher has narrow down the most important Theoretical Implications that contributed to the body of knowledge firstly, if we have look at the factors that the researcher use in the study we can conclude in terms of the current factors that need to be considered while evaluating the performance of knowledge workers worldwide, by having a new model for library staff digital competencies, The results of the research will help in developing a new model for performance among knowledge workers in Malaysia, It endeavors to recognize the impact of advances technologies upon the library staff and what levels of support are required to make a modern library function, This will highlight the developing requirement for trained and skilled staff in areas such as foundation knowledge, interpersonal skills, leadership and management, collection development, information technology skills, while the track of changing in the environment of knowledge workers work that required new skills and competencies this has curious the researcher that needs to be restructure, we can see the factors that researcher will study and investigate in this study and check the how much they affect to the performance of the librarian, Basically this research goals to examine the most modern required skills for knowledge workers in academic university Malaysia with the mediating role of leadership management skills that affect the performance.

## **MANAGERIAL IMPLICATIONS**

The researcher has come up with the most important Managerial Implications, the researcher has started by explaining the role of manager and how they will have full understanding on how to choose and evaluate the employee according to the international standers that held by many international organization worldwide that has approved and accredited this standards, for this Library managers will have a comprehensive understanding about the required competencies that will help in recruiting the library staff manpower by setting and establishing the standers requirement for library employee in the digital and information era ,The research offers important insights for library manager and head of department so that they can improve the performance of knowledge workers, Leadership management is highly influential in the performance of knowledge workers as mediator and therefore should be focused, this study emphasizes Leadership Management in the Performance of Academic University Knowledge workers in Malaysia, this study suggested that Leadership management is important thus management, take into consideration this factor to improve the performance of knowledge workers, by this the library managers they are up to date with the current requirements that let them evaluate the performance of their employees as well as this factors can be considered as JD (job description for knowledge workers in the digital ear).

## **CONCLUSIONS**

This study has identified standards of foundation and skills with inclusion of leadership management as mediator to evaluate the performance of relationship between modern required skills for knowledge workers in academic university Malaysia with the performance level, the study has revealed some skills that need to be possessed by each professional knowledge workers academic university Malaysia, This major and basic skills suggests that knowledge workers must have adequate knowledge of Interpersonal Skills (IS), Information Technology Skills (IT) and Leadership Management (LM) ,they also need to be well conversant with the organizational mission and objectives Moreover, the direct effects from Interpersonal Skills (IS), and Information Technology Skills (IT) on Leadership Management (LM) were rank as highly important.

The study has also identified specific capabilities needed by professionals in order to perform effectively in different operations and services one of the most skills that knowledge workers need to have is that Interpersonal Skills (IS) was found the strongest predictor of Performance (PR) so that managers and need to have full attention about the interpersonal skill and communicate well with the staff members that affect the library work level of performance, the mediation affect that strengthen the relation between the librarian and the performance was that Leadership Management (LM) that affect the performance.

The most big contribution to the literature was that to add the mediator effect on the performance of library staff and the researcher find out that Leadership Management (LM) fully mediates the effects of Interpersonal Skills (IS), Information Technology on Librarian's Performance so that we can consider the leadership management as major factor to measure the library performance in which the managers need to asset the library staff according to their leaders skills specially for those knowledge workers who will be in charge as head of department

The researcher recommends in his study that Leadership Management (LM) has less importance on the variables used named as partially mediates the effects of Interpersonal Skills (IS) and Information Technology (IT) on Librarian's Performance (PR) so that those

librarian working in the Information Technology department wouldn't need to have the leadership skills to improve their performance as it is less important.

Last but not least the skills relationship between modern required skills for knowledge workers in academic university Malaysia with the performance level with the inclusion of leadership management as mediator provide the ground-work for redefinition of the performance for knowledge workers work and will be as an asset for recruiters and managers to be up to date with the required skills in the digital era, in addition to that these set of standers with the new model that researcher has applied using the Carl model in Malaysia can also help with the evaluation of existing education programmes in library schools, which is make us as well defended for knowledge workers profession In the present time.

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