



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

**Competency Matrix for Strategic Human Resource Management in Malaysia
Telecommunication Industry**

Kaveh Mansournia

(Iran, +989127982449, nmansournia@gmail.com)

ABSTRACT

The purpose of this research is to study Human Resources Competencies and the way of Strategic Human Resources Management in the Malaysian Telecommunication Industry particularly to identify the different competencies that engaged companies possess and drawing a Competency Matrix relating to that. It is also intended to compare the achievement of the industry in this area according to Malaysia's Vision 2020. This study is done via survey questionnaire for gathering primary data from employees of Malaysian Telecommunication Industry. The total number of 120 employees responded to the survey. The findings revealed that Employee Education, Employee Interest, and Employee Ethics are significantly regarded and implemented as Human Resource competencies among employees of the Malaysian Telecommunication Industry.

Keywords:

Strategic Human Resource Management, Telecommunication Industry, Competency Matrix, Malaysia's Vision 2020



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

1. Introduction & significance of the research

Achieving 2020 Malaysian strategic vision (Wawasan 2020) demands most hard endeavor on tangible and intangible resources. Therefore, many things must be elaborated and included, as well as addressing strategic challenges. This vision was introduced by Malaysia's former Prime Minister, Tun Mahathir Mohammad. Some of them are about social development, but among them, there is an important challenge which is about Malaysia's Competiveness.

Identifying, defining, planning, and strategic leading through the aims for upgrading the enhancement of competitive activities is realizable via sound sources of management. Here, the focus is on Human Resource Management. The core competencies that are needed to be implemented must be identified for the purpose of meeting the aim.

Developing a Competency Matrix and assuming all the processes of Human Resource Management that are involved in this field of study, it would be easier to find those segments and related core competencies for every company studied in this survey. This means that it would be possible to better understand, reevaluate and replan the core competencies in Human Resource Management.

While covering achievements and showing the strong ability of companies in the Telecommunication area, having the Competency Matrix helps to distinguish the core competencies and Pros and Cons of every studied company according to the management of human resources strategically.

Lack of such matrix in this field causes one to not understand how the engaged firms have got the desired competencies for their human resources. Moreover, there is a gap between the strategic targeted visions of Malaysia 2020 and the competencies that are part of these companies' asset now. Accordingly, the researcher wants to elaborate on "to what extent do the industry play a part in the aims of becoming a developed Malaysia in 2020?" and "what are the core competencies that the Malaysian Telecommunication companies have got in comparison to each other according to Strategic Human Resource Management and in what areas they should do more?"

This study is in line with other surveys in Human Resource in the country of Malaysia. It is a research that follows the studies which have been done before in relation to the human resource area, by actively researching institutes in these criteria.



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

Lack of a competency matrix has instigated this research. By producing a Competency Matrix, it is possible to show the successful competencies and progressed companies. This research provides a clear guideline for understanding the core competencies implemented in Malaysia's Telecommunication industry and shows the needed areas for improvement.

Through this evaluation of strategies we would:

- 1) Be able to clearly understand the companies' growth path and know where the strong points are and which areas have room for improvement.
- 2) Find the areas that these companies need further training and work on them.
- 3) Determine exactly which soft skills (EQ) are these companies' assets and which need to be improved.
- 4) Identify the tasks that they should work more on and which of them need aid from others since they are not well skilled at them.
- 5) Find the expectations that they are far from and must work more to achieve.

Since Malaysia have got a vision for the end of this decade and is in line with the World progress and there is an absolute need for those companies to compete in this industry, not only domestically but also in neighboring countries, understanding the strengths and core competencies is something vital. As such, the research could be very important and help in reaching the mentioned aims for Malaysia's Telecommunication industry.

2. literature review

Human Resource Management is the process of working with employees in the way that those employees and their organization reach their aims. This could be done by changing, acquiring new skills and adopting new responsibilities with new shape and procedure of behaviors.

In other words, Human Resource Management is when the uses of manpower aligns with organization's objectives and consist of some efforts like: Recruitment and Selection, training, payment and salaries and organizational behaviors. Human Resource Management has a strong relationship with other sciences such as behavioral management, work psychology, Human Resource Economy, Statistics, etc.

The challenge of managing human resources is to ensure that all activities are focused on business needs. All human resource activities should fit together as a system and be



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

aligned with human resource strategies. These strategies, in turn, must be aligned with the business strategy.

By combining the Human Resources Management practices and functions with organization's business strategy, Strategic HRM expresses a more flexible arrangement and utilization of human resources to reach the organizational objectives, and as a result, helps organizations achieve a competitive advantage.

2.1 Using Competency

Using competency based models and making use of Competency Matrix in HRM of an organization causes deduction in selecting and recruiting the right person for the right job and reducing mistakes in the HRM process. As usage for Strategic HRM, organizations could follow HRM process for their employees or potential ones and implement the outcomes of Competency Matrix for those aimed strategies. Human resources are almost certainly the main sources of strategic advantages (Scott-Jackson, 2008).

For instance, as Leopold (2005) stated in "Strategic Management of Human Resources" for selecting specific employee for a certain position in International Advertising sector of a company, the fluency in English language is a big competency and it is really appreciated by the company. Having this will cause the sector to be interchanging with other collaborators and working with merchandisers in other companies.

Alternatively, for this specific sector, a competency-based training is something inevitable. A certain English training program enables improvement of this special technical competency for other employees in this sector or the other ones who are interacting with international counterparts around the world.

The benefits of competency framework in a job are many. Moreover, to the Recruitment & Selection, this usage extends to other areas such as performance management, succession planning, training and development, rewards management, career path making, job assessment and job design & grading.

2.2 What are the HR competencies?

After finding out the impact of Human Resource Management on productivity of people in early 1990s, most of the businesses were influenced by it. After a while experts tried to turn human capital strategies into more stable competitive advantages. So, the benefits



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

and outcomes in businesses were related. In this period, Losey (1997) presented his Competency Equation after engaging for many years in HR departments.

2.2.1 Intelligence

In this proposed equation for HRM competencies, 5 elements result in competencies. The first one is Intelligence. Sometimes it is regarded as intelligence quotient (IQ). Through using this inborn ability, employees are easily able to modify data into usable information for problem solving. For the superior positions (managers) in organizations, Emotional Intelligence (EI) is used for this category.

2.2.2 Education

The second factor is Education; the logical compliment to the first factor of Intelligence. These two pose nearly a same weight in Losey's equation as mentioned above. Besides experience, the knowledge to work and deal with job equipment usually comes from education. For instance, the knowledge for using a computer as an accountant is just from education and related training especially in universities. Education in this era is something of a lifelong commitment and perennial for progressive employees or employers.

2.2.3 Experience

The third part of the equation is Experience. This factor plays a crucial role in competency. As life's great teacher, many professionals prefer having experience in solving regular HRM-related issues and jobs problems. Especially working with others is one of the most important factors which are needed in employee selection and this is not achievable via education. Also, working in different working situation is just doable via having much endurance and experience. Adding to these, we could mention group work experience that is a core competency in today's professions.

2.3.4 Ethics

Having a good mind, educated, and experienced are vital for HRM competency. However, in this equation ethics is another factor that sometimes equals to the first three important ones. This factor shows its importance especially in employee retaining and lowering the job turnover. Sometimes, ethics is serious for organizations when some parts of their business need to be discreet, like their strategies and their behavior in the market. It is also good for individual employees to avoid embezzlement.



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

Moreover to this, much of business ethics nowadays have focused on financial matters and fighting with individuals' corruption. Here job standards can have important role as a core competency for the businesses. Via employee job standardization and defining ethical bounds for him/her self and monitoring his/her activities, the business can take advantage of good ethical observation in the job and avoid some job phenomenon like corruption and absenteeism. Here, a good and well-known example is the Enron Corp. where high corruption and lack of observing ethics in employees caused the company to fall significantly in its business.

Other behaviors like retaining job positions and protecting one's status fall under this factor. This is especially correct for a business when competitive demands are placed on performance of organization or in the situation when professionals hesitate for wanting to be viewed as a player in working as a team.

2.3.5 Interest

Last but not the least; Interest has also influenced professional HRM competencies. With its positive value, job exploration and applying oneself effectively is sometimes inevitable. Job sagacity and innovation in a working situation comes from interests in the job. Lack of it causes devastating effects in today's business. Much of the studies, like Kashefi (2007), Broeck & others (2009), Slomp & others (2008), Karuppan (2008), etc. were done on improving interests and enthusiasm in jobs and flexibility in the working atmosphere. They had tried to show the importance of interest in profitability of jobs. By this means, we could conclude that interest is one of the most important factors in HRM competency that could help HR executives in employee retaining and lowering job turn over as well as a competency that employees should possess.

Competitive HR professionals introduce requirements of the businesses and they are usable in improving their competencies during the era of progress.

2.4 HRM Clusters

Clustering HRM competencies could be done in another more detailed way. Berger and Berger (2008) in their book named: "The Compensation Handbook" have gone in very detailed in recognizing HRM competencies. They categorized HRM competencies in 9 clusters as Business Knowledge, Customer Focus, Communication, Result Focus,



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

Conceptual thinking, Stamina & Adaptability, Collaboration and innovation and finally, Leadership Pro-activity.

Below, there are descriptions and examples of every cluster of HRM Competencies according to Berger and Berger (2008). The ability of employees to understand the industry where he/she works in is an example of Business Knowledge. Having overview of the business and knowing the products released in the market and being apt in financial intelligence are some other sub-competencies that had been categorized under Business knowledge.

The second HRM competency is being Result Focused. For having this competency, one must identify business gaps and find solutions for it. She/he must maximize the usage of technology in her/his working environment. Facing challenges and taking positive points from them or getting experienced from them are other abilities regarded as competency for both employees and employers.

The ability of Leadership is another factor in completing this model for HRM competencies. There are many abilities represented for assessing Leadership ability as a competency. Motivating others by aligning with strategic goals or objectives of organization is one of the most important factors. One can set out well aims and standards for work or having a special style of working is more capable for Leadership. Newall (2001) stated that sustaining partnership is a good mechanism for building competitive advantage. One who wants to get leadership as his/her leadership competency must be able to find and share successful experiences with others.

The fourth factor regarded as HRM competency is Customer Focus. It consists of the abilities of identifying and forecasting customers' needs and having partnership and long-term relations with them, creating better solution for meeting customers' requirements and having sound standards for servicing them.

After showing aptness in retaining customers by having Collaboration with colleagues is the next competency. One who can push others towards organization's goals and encourage them to work better is having aptness in Collaboration. One of the challenges in many big corporations is having an avenue for Information sharing. Being capable in building such a sharing network between employees is an important competency that brings success to every company and makes the usage of employees' skills very effective.



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

Being Proactive is a demanding competency for HR management. One who is Proactive is very apt in seizing opportunities and handles working problems very effectively. He/she does the tasks in a better manner as assigned to him/her formally. Not a limit would bind him/her in the work.

The 7th competency for HRM is Conceptual Thinking. In confronting complex work situations or for solving key issues, one must have conceptual thinking and assume all the aspects including environmental factors. Taking into account all aspects and factors influencing the job is a competitive advantage that employees must have and hiring this kind of employees can raise the competency of a company wholly. Identifying certain job connections or patterns and applying them in the work is another competency for upgrading success in markets done by employees.

One of the most important competencies in HRM and for employees is Innovation. It is a very good competency that shows aptness in applying new and non-routine approaches to different situations. One who can change standard ways of doing tasks to more effective ones for the purpose of more profitability or better outcomes is very competent in the working environment. If he/she encourages other colleagues for applying new and better approaches at work, the business fruits very well and helps to compete in today's severe rivalry. As Pot (2001) stated in his research, using innovation is continuously growing in countries and it causes improvement in quality and performance of working life.

Having reliable communication is a good competency that in today's competition plays a vital role. So being good in communication skills are the 8th competency for employees that is discussed here. The ability to receive messages in any form for advancing a job or helping others via good communication is something essential for every employee. Other skills like language proficiency and different styles of using it to deal with audiences, having discussion about job issues, openness with customers and being capable to well interact with them, and analyzing data and clustering information for the purpose of addressing issues are different aspects of communication competency. Somehow like what Losey (1997) uttered, job interest comes under this aspect of working. As Robbins & Judge (2009) brought in their book, communication between two people consists of sending, receiving and getting feedback. This feedback may show itself as just learning.



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

The ability to process these data in one's mind and apply it in his/her job for different affairs like problem solving is regarded as the demanded competency.

Till now, eight HRM competencies have been discussed. The last one which shows human resources' interest in work is adaptability and endurance. Being able to sustain in different working situation and for long hours if needed and acting flexible in that is a competency and demanding behavior that HR executives are continuously searching for or encouraging employees to assert. As Bonanno *et al.*, (2004) had expressed in their article, being flexible in a job is something inherent and has relationship with job enthusiasm and feeling that the job is interesting.

2.5 Telecommunication Industry in Malaysia

The speedy increase in usage of the Internet and hand phones has caused the increase in importance of the Telecommunication Industry and the need for rapidness and innovation in usage of science and technology has made it more and more competitive. As a strategic weapon in today's progressing world, Telecommunication Industry has become a leading industry in pushing technological achievements in many countries. In this era, making competitive advantages for business and globalization resulted in creating competitive advantages and created new frameworks for managing human resources (Willems and Ketler, 1999).

Telecommunication industry as an important industry has always been the host of competitiveness and leading in the usage of technology; it asserts competitive competencies as a crucial factor for leading the industry and being a pioneer in it. In an area like Southeast Asia where the industry is growing very fast, focusing on different aspects of development and aligning people with it needs much effort. Linking between technological developments and sources that we want to cope with them need much effort from the managements. These efforts of businesses that align roles with advanced sciences and technologies make it possible for them to gain competitive advantages in their own market (Youngdahl and Loomba, 2000).

Malaysia's privatisation in the Telecommunication industry has caused the firms to practise better management and implementation of latest technology better than before. Conforming with global economy developments and to better improve the local financial



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

atmosphere in the country were the main factors to bring innovation to the industry and made it to be blooming in the 21st century (Telekom Malaysia Berhad, 2006).

In this industry, employers must consider the employees evaluation from various concepts for the purpose of improving quality of services and must give precedence to the most crucial elements of competencies. As Rohaizat and Ainan (2007) stated in their article about Malaysian Telecommunication Industry, the relationships between employees and customers play an important role in the quality dimension which also has a positive impact on employee satisfaction. As a result, one of the competitive competencies that appeared to be determinant is the ability to communicate and affect customers' experience. In large companies of the industry, the focus of HRM is on performance of individuals, employee expectation, and management of career. There is also a little attention on employee motivation and bounces form. However, in smaller firms the focus is more on satisfaction of employees.

3. METHODOLOGY

In this study, a model based on hypothesis and former studies as discussed in the previous parts is proposed and is supposed to test and explore the relation between the described variables and models for reaching new desirable outcomes. Due to this approach, this research is an exploratory one. Both kinds of primary and secondary data are employed here.

The primary data is gathered via oriented questionnaires and interviews. The unit of analyzing is individual. According to the study objectives, the research must investigate the influences of different Human Resource Competencies and practices on Competency Matrix and find out the core competencies of their carriers as their engagement in Malaysian Telecommunication industry.

Based on the review of literature, it is assumed that implementing HR competitive competencies has an influence on overall industry competencies and workers' performance. Their performance and succession is the key factor in building the Competency Matrix.

Another way to state this is that the strategic practices, competencies and planning of human resources have influences on employee performance and turnover directly as well as on whole industry capability of competency and the organizations' culture.



Here is the research framework:

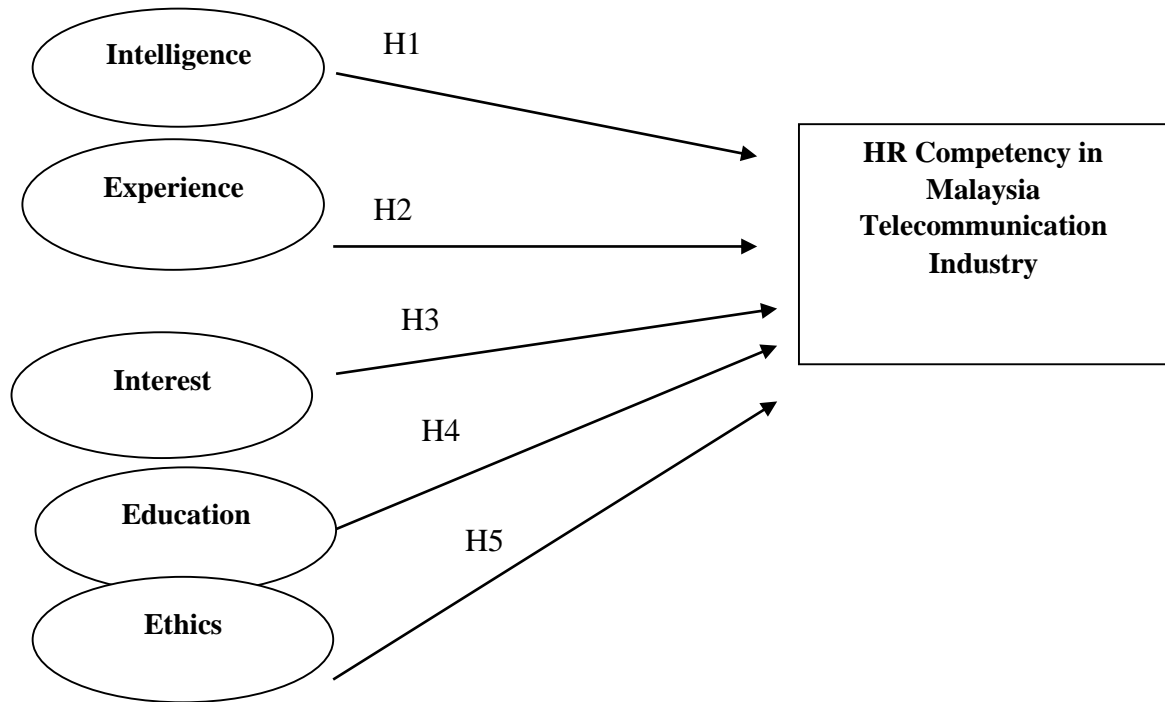


Figure 1: Research Framework

3.1 Research Hypothesis

Here are the possible research hypotheses:

H1: Malaysian Telecommunication Industry is significantly engaged in Work Intelligence as HR Competencies

H2: Malaysian Telecommunication Industry is significantly engaged in Employee Experience as HR Competencies

H3: Malaysian Telecommunication Industry is significantly engaged in Employee Interest as HR Competencies

H4: Malaysian Telecommunication Industry is significantly engaged in Employee Interest as HR Competencies

H5: Malaysian Telecommunication Industry is significantly engaged in Employee Ethics as HR Competencies

3.2 Sampling and data collection



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

To draw and elaborate on the conceptual framework, both of the primary and secondary data sources will be referred. Interviews, questionnaire and data collection from different sources, such as libraries, online data centers, and official origins are used.

Along with the questionnaire, for better understanding of the situation in the corporations and to get their own beliefs about what they are following in their working path and to compare it to the gathered data and results, some interviews are also done. These interviews are particularly conducted for gathering data from heads of the companies.

3.3 Questionnaire design

The defined variables in the hypothesis are measured using the survey questionnaire. There are different and various competitive competencies for Human Resources Management that are followed by companies and their employees.

At first some demographical questions are presented, although they are not significantly important. They are mostly used for ranking and identifying the experience of participants and their familiarity with the working environment and for some other reasons like the impact of employee wages on their job. All the items of the questionnaire were produced originally to avoid copyright issues. The questions are completely directed and designed with multiple choice answers. There are directions for every part that help participants to answer better.

Every element of HRM competitive competencies is presented for the purpose of companies' competency identification and understanding the results with what it was assumed to be. Moreover, the questions for measuring Competency Matrix-related variable are also provided for helping in correlating it with the other 5 variables and aiding to implement regression method in the research analysis.

There is also an open-ended question included at the end of the multiple choice questions for employees to express their overall opinion about the company's Strategic Human Resource Management and competitive competencies.

As mentioned before, some interviews are also included as primary source of data collection in this research. The interviews were conducted for gathering data from CEOs and heads of companies. This kind of important data are recorded by an electronic instrument and every related point of views from the heads is recorded. The main points are about their strategies in HR management and the plans and related practices that they



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

imply for their employees in the industry. In addition, their core competency is asked according to their point of view. A pre-test was conducted among 10 participants before designing the last version of the questionnaire.

It asserts 5 main parts. All the 5 main elements of HRM competitive competencies were included in the questionnaire from Losey's Competency Equation. Here, the focus is on the core corporate' competencies that enhance the HR Management and its roles and abilities in achieving their vision. The questionnaire is presented in the Appendices in both English and Bahasa Malaysia.

4. DATA ANALYSIS

For analysis of the data obtained from the questionnaires, the usage of SPSS software is preferable. This software is helpful in finding the relationship between variables and finding the significant logical relationship.

P-Value is used for the purpose of showing the results of analysis and making decision whether the correlation between the variables is significant at 5%. The results of the T – test is used for showing any significant differentiation in the means of the 2 independent groups. The independent variables are different competencies for Human Resources that are managed strategically in the Malaysian Telecommunication Industry.

The data for each section was gathered via answered questions to every part. The independent variables in this survey are Work Intelligence, Work Experience, Job Interest, Education, and Ethics. In this situation, the dependent variable is Total Competency.

Since the questions are answered via Likert scaling, a mean for every individual is calculated for every answered question and forms a new part which represents the average amount for each variable.

Table below shows statistical result for every variable in the research.



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

Statistics

		Total.Intellig ence	Total.Expir ence	Total.Inte rest	Total.Edua ction	Total.Et hics	Total.Compe tency
N	Valid	120	120	120	120	120	120
	Missi ng	0	0	0	0	0	0
Mean		3.7950	3.8771	3.8000	3.8333	3.9800	4.1667
Mode		3.40	4.00	3.67 ^a	3.60	3.80	4.00
Std. Deviation		.44492	.47962	.39759	.36881	.40201	.36238
Variance		.198	.230	.158	.136	.162	.131
Minimum		2.80	2.25	2.67	3.00	2.80	3.00
Maximum		4.80	5.00	4.67	5.00	4.80	5.00
Percent iles	25	3.4000	3.7500	3.5000	3.6000	3.8000	4.0000
	50	3.8000	4.0000	3.8333	3.8000	3.9000	4.2000
	75	4.0000	4.1875	4.0000	4.0000	4.2000	4.4000

Statistics for research variables

After describing some statistic results for the research variables, in table 1 above, it is attempted to show the amount of correlation between all the variables. Here as described before this amount must be between -1 and +1.

4.1 Testing Variables

In these parts, the amount of P-value for each Independent Variable and Competency as the Dependent variable are measured. This means that it is possible to prove or reject the 5 hypotheses that are presented before.

4.1.1 Work Intelligence

This part with the mean of 3.795 measures the amount of cleverness and abilities of employees to work in the industry. The main aim which is testing the relation between the two variables is conducted via ANOVA in Linear regression



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

Statistics

		Total.Intellig ence	Total.Expir ence	Total.Inte rest	Total.Edua ction	Total.Et hics	Total.Compe tency
N	Valid	120	120	120	120	120	120
	Missi ng	0	0	0	0	0	0
Mean		3.7950	3.8771	3.8000	3.8333	3.9800	4.1667
Mode		3.40	4.00	3.67 ^a	3.60	3.80	4.00
Std. Deviation		.44492	.47962	.39759	.36881	.40201	.36238
Variance		.198	.230	.158	.136	.162	.131
Minimum		2.80	2.25	2.67	3.00	2.80	3.00
Maximum		4.80	5.00	4.67	5.00	4.80	5.00
Percent iles	25	3.4000	3.7500	3.5000	3.6000	3.8000	4.0000
	50	3.8000	4.0000	3.8333	3.8000	3.9000	4.2000
	75	4.0000	4.1875	4.0000	4.0000	4.2000	4.4000
Model		Sum of Squares	df	Mean Square	F	Sig.	
	1 Regression	.462	1	.462	3.597	.060 ^a	
	Residual	15.164	118	.129			
	Total	15.627	119				

Since the P-value here is 0.60 and greater than 0.05, the first hypothesis of the research will be rejected. This means that in the selected society, Employee Intelligence cannot be used as a predictor for Competency.

In other words, Telecommunication Industry of Malaysia does not engage in employee intelligence as their HR competencies significantly



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

4

H1 Rejected

From the result of ANOVA showing Sig. as 0.068, it could be concluded that the P-value is greater than 0.05, so the independent variable here (Experience) cannot be used as a predictor for Competency.

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.437	1	.437	3.394	.068 ^a
	Residual	15.190	118	.129		
	Total	15.627	119			

a. Predictors: (Constant), Total.Experience

b. Dependent Variable: Total.Competency

The evidence here shows low relation between Work Experience and Competency in the measured society of Malaysian Telecommunication Industry. The research's second assumption is not fulfilled. So, like the first hypothesis of the research, H2 is rejected.

H2 Rejected

4.1.3 Employee Interest

Employee interest represents eager and enthusiasm of workers in their careers. Its aspect in employees causes the job to be interesting and employees really enjoy their job.

Employee Interest is the 3rd independent variable in this research about competencies of employees in the Malaysian Telecommunication Industry and assumed as the 3rd hypothesis influencing and regarded significantly in the industry.

Now via the Linear Regression test between Interest and Competency, the aim to approve this independent variable would be obvious.



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.522	1	.522	4.077	.046 ^a
	Residual	15.105	118	.128		
	Total	15.627	119			

a. Predictors: (Constant), Total.Interest

b. Dependent Variable: Total.Competency

Since the P-value here in table 4-27 is 0.046 which is lower than 0.05, it could said that the 3rd hypothesis is fulfilled. It is proven that Employee Interest can be used as a predictor for Competency and can significantly influence it.

H3 Accepted

4.1.4 Employee Education

Like the previous HR competency, Education plays an important role in getting competitive advantage for human resources in every industry. It contains the efforts of training and brings in the facilities to learn more for employees.

The amount of correlation between Employee competency and their Education is tested. Then we will see whether it could be used as a predictor for competency and if employees are significantly regarding education as their HR competency.

Here still the P-Value is 0.000 and t is positive. The equation above shows higher relationship with the dependent variables in comparison with other previous independent variables. It is expected that education could be a good predictor for Competency in the tested society in the Malaysian Telecommunication Industry.



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.395	1	3.395	32.755	.000 ^a
	Residual	12.231	118	.104		
	Total	15.627	119			

a. Predictors: (Constant), Total.Education

b. Dependent Variable: Total.Competency

Since the P-Value is 0.000 which is lower than 0.05, via table 4-33 above, it is approved that the independent variable (Employee Education) can be used as a predictor for the dependent variable (Competency).

This means that the 4th hypothesis of the research is approved. It is obvious that Employees in the Malaysian Telecommunication Industry are significantly engaged in education and they approve that education is their competitive competency in their related industry.

H4 Accepted

4.1.5 Ethics

This part is related to the moral principles and values of working and its environment. As stated in literature review, companies can use ethics to gain Human Resources Management competitive competencies.

Employees who are very good in ethics related issues can be pioneers in their job and are more valuable compared to employees of other organizations without this competency. Usually they are more flexible and observe morality at work.



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.062	1	1.062	8.607	.004 ^a
	Residual	14.564	118	.123		
	Total	15.627	119			

a. Predictors: (Constant), Total.Ethics

b. Dependent Variable: Total.Competency

Here in the table above as the P-Value is 0.004 which is lower than 0.05, the assumption about Ethics and Competency is correct and the 5th hypothesis of the research is proven. By this it is possible to say that employees in the Malaysian Telecommunication Industry observe ethics issues significantly in their working environment and we can assume ethics as a Human Resources competency in the tested industry.

H5 Accepted

4.2 Best Human Resource Competency

In the last page of the survey, there is a question finding out the employees belief about Human Resources competencies directly. Here, it is aimed to find out which of the competencies stated in the survey is more important or which of them has more priority for the employees of the Malaysian Telecommunication Industry.

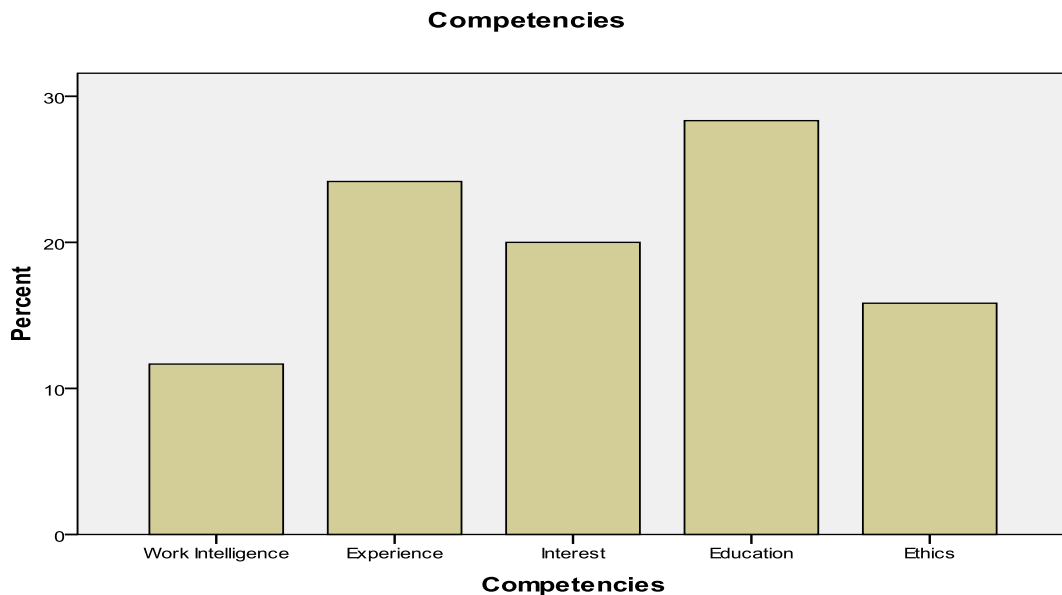
By this means it is also possible to find out their expectation and compare it to what they are really performing for their competency and what is their position in this field.

Via chart below, the percentage of each competency is illustrated and will be shown what they expect to be the best competency.



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304



Percent of Competencies

As shown above, it is possible to rank the competencies as follows: 1- Education 2- Experience 3- Interest 4- Ethics 5- Work Intelligence.

It is expected that Education is the most competitive competency for human resources. 28% of employees who participated in the survey believe in Education as the most important one. The interesting issue is that 24.2% of them stated that Experience is the most important competency but as proven in table below, these employees are not significantly good in using experience and by that it means that it is not possible to include experience as a competency for this measured society.

It is also expected that Interest and Ethics are ranked higher than experience but only 20 and 15.8 percent of participants believe in them respectively. A very small portion of society (11%) believes that working intelligence is the most important competency for human resources.

Here it is concluded that employees who participated in this research are doing below their expectation about using their experience in their work but observing ethics above their expectation in their career.

Here is the sum of each competency without omitting any of them that was gathered for finding competencies among companies engaged in the industry. Each of the



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

competencies is used for Strategic Human Resources Management that will be discussed further in Findings.

All of the competencies have a score for the 4 companies. This score is ranged between 30 and 150 and shows the amount of agreeableness among different employees.

	Competencies	Company.Name			
		DiGi	Celcom	Maxis	TM
		Sum	Sum	Sum	Sum
Intelligence	I am completely familiar with Malaysia Telecommunication Industry	123	119	117	113
	I am familiar with all of my company's Service or Products completely	122	117	119	114
	I am familiar with the overview of my company business and its targets	101	101	125	120
	I Share my success factors with others	115	110	128	119
	I make information sharing network with my colleagues	107	111	129	119
	I would act beyond the task bounds constructively	89	107	126	117
	I can identify connections and patterns between job's tasks	108	107	121	117
Experience	I have set clear standards and goals in my carrier	112	117	121	121
	I can identify job's gaps and would try to solve them	111	108	125	111
	I have the ability to forecast customers' requirements and would try to fulfill them	129	119	128	122
	I develop my work with other's experience	96	111	122	130
	With my experience, I can handle carrier crisis effectively	117	119	125	121



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

	Via my experience I identify main issues and make them profitable	118	110	128	117
	I would modify standard approaches for getting better outcomes	109	105	129	115
Interest	I motivate others to gain the company's goals	91	123	127	124
	Constructive Criticisms are approved by me	110	114	123	124
	I can face challenging but reachable goals	115	112	125	121
	I try to present maximum quality of service for customers	120	124	133	128
	I would extend partnership with customers and increase their profit	119	118	127	116
	I get progressive opportunities in job instantly	96	105	119	109
	I am easy with working for more than 8 hours a day and under job pressure	106	96	100	102
Education	I use current technology as much as possible in my carrier	120	119	122	126
	I would analyze metaphors and analogies in my carrier	111	96	111	109
	I have got related academic degree align with my job	120	107	121	109
	There are different classes related to my job and I have attended them	121	119	121	121
	I have trained enough about Information technology implementing at work before stating the job	114	117	118	111
	I have the ability to find weakness, and strengths, opportunities and threats of the business	118	104	113	112



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

	I feel the great importance of knowing 2nd language (like English) in my career	118	110	119	128
Ethics	I set work targets and control my efficiency	128	122	130	123
	I assume myself in the position of a customer	125	119	135	122
	I do not revile critical issues of my company	131	127	133	124
	I feel secured in the position I am engaged	93	100	100	96
	I think that job rewards are sufficient according to what I do	111	108	107	105
	I do not avoid working in hard situation for sometimes	104	113	113	111
	I always evaluate myself in working situation	121	117	132	123
Competency	I am competent to work in Telecommunication industry	121	119	126	121
	I believe in having a competency matrix for every business	112	121	130	121
	Having competency matrix for Malaysia Telecommunication industry specifies the real rank and position of involved companies	127	126	128	129
	I believe in effects of having competitive competencies in business success	120	121	130	128
	Employees find the standards of industry by having a job competency model	123	119	132	124
	Using Competencies can provide employees with clear direction to organizations' mission and objectives	128	119	133	126

4.3 Competency Matrix

Via all the gathered information in table above, it is now possible to draw the competency matrix according to the results of the variables analysis.

In this matrix, all the 4 companies are evaluated with their competencies. Since the first two competencies (Work Intelligence and Experience) are rejected in the research, they



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

are omitted in the matrix. Their strengths in each competency are distinct with different colors.

The mean for the competencies between 90 and 119 out of 150 is 3.00 to 3.99 and the mean for scores of between 120 and 150 is 4.00 to 5.00. They are distinctive with yellow and green color.



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

The Matrix shows that the companies of TM and Maxis are doing better in different fields compared to other companies.

Competency Matrix

From 90-119 From 120-150

Competency Company	Interest					Education						Ethics				
	Motivating Others	Facing Challenging Goals	Presenting Service Quality	Partnership With Customers	Getting Progressive opportunities	Working for more than 8 hours	Analyzing metaphors and analogies	Having related academic degree	Attending Related classes	Ability to finding SWOT	Knowing second language	Setting work target	Assuming in the position of customer	Revising critical issues	Believe in sufficiency of rewards	Evaluating in job situation
DiGi	91	115	120	119	96	106	111	120	121	118	118	128	125	121	111	104
Celcom	123	112	124	118	105	96	96	107	119	104	110	122	119	127	108	113
Maxis	127	125	133	127	119	100	111	121	121	113	119	130	135	133	107	113
TM	124	121	128	116	109	102	109	109	121	112	128	123	122	124	105	111



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

4.4 Findings

After testing all the variables and finding their relationship, it is proven that the 1st and 2nd assumption of the research are not fulfilled and rejected after using Linear Regression. The 3rd, 4th and 5th hypothesis about Interest, Education and ethics are approved with the P-Value of 0.046, 0.000, and 0.004, respectively.

Statistics show high relationship between Employee Interest, Education and Ethics with their Competencies. In other words, we can use Interest, Education, and Ethics as HR competencies for employees engaged in the Malaysian Telecommunication Industry.

5. DISCUSSION

Via statistical analysis, it was proven that the participated employees of Malaysian Telecommunication Industry are engaged in some competencies more than others. Employee Education, Employee Interest, and Employee Ethics are regarded more and implemented compared to Work Intelligence and Employee Experience as HR competencies.

One of the aims of conducting this research is to show the amount of these companies' strengths in the competencies. The attitude of the employee towards Experience and Work Intelligence was not so satisfactory to be accepted in the research hypothesis.

5.1 Recommendation

In this part according to some points extracted from previous sections, some recommendations are presented for getting better competitive competencies in the Malaysian Telecommunication Industry.

For continuing the strategic lines of human resources in the industry, companies need to pay more attention to competitive competencies. Selecting talented and qualified candidates for every job sector helps to grow average job intelligence among employees. Moreover, the employees must be taught how to use their experience in forecasting customers' demands and fill job's gap. Via proper usage of working experience, employees can be really helpful for their organizations and bring profit and competency. In order to make the employees more interested in their jobs, organizations can place customer service employees according to different positions according to type of behavior, motivation, and gender. This research proved that females are acting better in customer service. Extrovert personnel are very good candidates for such jobs. They can



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

even motivate other employees to reach the organizations' aims. In the situations where employees are needed to do their tasks for more than 8 hours a day, it is recommended to use male ones since ladies proved not to be very eager in working that amount.

As stated in data analysis, Employee Education is one of the highest correlated items with Employee Competency. Fortunately, nearly all the employees stated that they are hired according to their expertise. This is what improved with the help of HRM in organizations recently. Since the industry is highly engaged with IT, in related trainings provided for the employees, they need to be more familiar with Information Technology especially those who are older compared to average because they are not very trained in this field during their education time. It is also highly recommended to provide English Language classes for the employees and mention the high need of knowing the language in today's progressive era. Using this language helps the organizations in getting competitive competencies and eases entrance to the international markets or communicating to international customers.

Last but not the least is the demanded way toward implementation of ethical issues at work. For having highly motivated and satisfied employees in the work, it is recommended to provide them their suitable demanded salary and make them satisfied with that. Since many of the participants declared their unsatisfactory attitudes about their salary, it needs attention of HR executives to re-arrange and re-consider the amount of employees' wages according to recent financial position in the society. Moreover, for acting with maximum capability, employees need a fine and demanding secured job position. Assuring employees about their job security and eliminating unneeded downsizing significantly improves employee satisfaction. This absolutely helps organization in benefitting more and act competitively in the industry.

5.2 Is the Industry aligning with Malaysia's Vision 2020?

Answering this question in a complete manner may never be possible. According to the National Telecommunication Policy (NTP), employees of the industry must reach a good level of education and usage of Information Technology in their career. Their competencies must bring the industry to high profitability continuously. The companies engaged in Malaysian Telecommunication Industry must use their core competency for



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

best rivalry and competing healthily for extending boundaries toward a highly progressed country in the region.

The companies engaged in the industry are encouraged to establish training programs for having innovative human resources. It is also encouraged to have a fine level of interaction with other companies in the region.

After conducting this research, it is perspicuously proven that the industry has done very well in training or selecting demanded educated employees. Most seem to be appointed according to their expertise and education. For having more innovative human resources, the industry needs to upgrade its employee work intelligence and focus on selecting with demanded aptness on appointing jobs. In addition, the need for knowing another language can be invigorated among employees to better interact in international business opportunities.

After all, the need for better competition between companies could be increased. Via raising employee interest overall, the essentiality for rivalry and gaining more increased significantly.

All together the industry is almost doing well and is aligned with Malaysia's Vision 2020. For reaching the strategies till that year, it is needed to do more employee Interest and their working intelligence. Still 2 years remains and during this time many good things could happen.

6. LIMITATIONS

In this research, only 4 of the main companies in the industry were eager to cooperate with the researcher. Some others like U-mobile or P1 did not state their willingness in conducting the research among their employees.

Although more standard questions could test the research competencies more accurately but the numbers of questionnaire items could not exceed more than the current number. Since the employees' tolerance and time on answering the questionnaire is limited, no more questions about HR competencies or background –related questions could be provided.

7. CONCLUSION

This study represents an academic attempt toward investigating Strategic Human Resource Competencies of employees in the Malaysian Telecommunication Industry. Yet



Competency Matrix for Strategic Human Resource Management in Malaysia Telecommunication Industry

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

not a published research has studied or investigated on Competency Matrix and Competitive Competencies of the industry. Moreover, this is the first time that such an academic research was conducted by an external expert among several companies in this size for their Human Resources Competencies and attempted to provide suggestions for better gains.

This research clearly implies on the amount of HR competencies implemented in the industry and categorizes them into 5 different competencies as Work Intelligence, Employee Experience, Employee Interest, Employee Education, and Employee Ethics. This study shows that Interest, Education, and Ethics are building the employees' competencies more than the two others. Moreover, Employee Education proved to be the most significant factor for increasing competence among others.

After conducting this research more studies need to be done on this aspect of Human Resources Management and more attempts are needed for developing the implementation of HR competitive Competencies in this industry.

REFERENCES

- Ainan, M. Y. and Rohaizat B. (2009). Internal Customer Service Quality in the Malaysian Telecommunications Industry, UTM.
- Barney, J.B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17 (1), 99–120.
- Barney, J. B. and Wright, P. M. (1997). *On Becoming a Strategic Partner: The Role of Human Resources in Gaining Competitive Advantage*, Cornell University.
- Berger, L. A., and Berger, D. R. (2008). *The Compensation Handbook: A State-of-the-Art Guide to Compensation Strategy and Design*, The McGraw-Hill Companies.
- Bonanno G. A., Papa, A., Lalande, K., Westphal, M., Coifman, K. (2004). The Importance of Being Flexible: The Ability to Both Enhance and Suppress Emotional Expression Predicts Long-Term Adjustment, *Psychological Science*, 15 (7), 482-487.
- Boxall, P. (1996). The strategic HRM debate and the resource-based view of the firm. *Human Resource Management Journal*, 6(3) 59–75.
- Broeck, A. V., Vansteenkiste, M., Lens, W. (2010). Unemployed Individuals' Work Values and Job Flexibility: An Explanation from Expectancy-Value Theory and



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

- Self-Determination Theory, *Applied Psychology: An International Review* 59 (2), 296-317.
- Cecile, M. (2010). HR competencies at a merged Higher Education Institution, *SA Journal of Human Resource Management*: 8 (1), 1-8.
- Choi, J.P. (2010). Tying in Two-Sided Markets with Multi-Homing. *Journal of Industrial Economics*.
- Deb, T. (2006). *Strategic Approach to Human Resource Management: Concept, Tools and Application*, Atlantic Publishers & Distributors.
- Dessler G. (2011). *Human Resource Management*; 12th edition, Pearson Education Inc.
- Dowling, P., Schuler, R. (1990). Strategic Human Resource Management: Are the promises fulfilled?, *Asia Pacific journal of HRM*, 30 (1), p2.
- Haroon, M., and Zia, M. R. (2010). Strategic Human Resource Management and its issues: A study of Telecom sector of Pakistan, *Interdisciplinary Journal Of Contemporary Research In Business*, 2 (5), 67-77.
- Ijose, O. (2010). Strategic Human Resource Management, small and medium sized enterprises and strategic partnership capability, *Journal of Management & Marketing Research*, 5 (1), 1-13.
- Jassim, R. K. (2003). *Competitive Advantage through the Employees*, College Of Technology at Jeddah.
- Karuppan, C. M. (2008). Labor Flexibility: Rethinking Deployment, *International Journal Of Business Strategy* 8(2), 108-114.
- Kashefi, M. (2007). Work Flexibility and its Individual Consequences. *Canadian Journal of Sociology/Cahiers canadiens de sociologie* 32(3).
- Kilne, C. and Peters, L. (1991). Behavioural commitment and tenure of new employees: A replication and extension, *Academy of Management Journal*, 34 (1), 194-204.
- Lee, J., and Miller, D. (1999). People Matter: Commitment to Employees Strategy and Performance in Korean Firms, *Strategic Management Journal*, 20(6), 579-593.
- Lengnick-Hall, M. L., Lengnick-Hall, C. A. (2009). Strategic human resource management: The evolution of the field, *Human Resource Management Review* 19, 64–85



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

- Leopold, J., Harris, L., Watson, T., (2005). *The Strategic Management of Human Resources*, Prentice Hall.
- Losey, M. R., (1997). *Mastering the Competencies of HR Management*, *Human Resource Management*, 38 (2), .99-102.
- Marja, L. P. (2010). *A Comparative Study of HR Managers' Competencies in Strategic Roles*, *International Management Review*, 7 (2), 5-12.
- Marwat, Z. A., Qureshi, T. M, Ramay, M. I. (2006). *Impact of Human Resource Management (HRM) Practices on Employees Performance: A Case of Pakistani Telecom Sector*, Muhammad Ali Jinnah University, Islamabad.
- Mayer, S. J. (2008). *Strategic Human Resource Management: Practices of High Performance Organizations*, *Innovative Human Dynamics*.
- Morton, C., Newall, A., Sparkes, J. (2001). *Leading HR: Delivering competitive advantage*. Institute of Personnel and Development
- Musa, M. Bakri (2007). *Towards A Competitive Malaysia*. Petaling Jaya: Strategic Information and Research Development Centre.
- Newall, A., Morton, C., Sparkes, J. (2001). *Leading HR: delivering competitive advantage*, CIPD House, London.
- Pinnington, A. H., Macklin, R., Campbell, T. (2006). *Human Resource Management: Ethics and Employment*, Oxford University Press.
- Porter, M. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*, Free Press, New York.
- Porter, M. (1990). *The Competitive Advantage of Nations*. New York, NY: Free Press.
- Pot, F. (2001). *Reflective Practice: Workplace innovation for better jobs and performance*, *International Journal of Productivity and Performance Management*, 60 (4), 404-415.
- Rahim, K. (2000). *Competitive Advantage through the Employees*, College Of Technology at Jeddah
- Ramlall, S. J. (2006), *Identifying and Understanding HR Competencies and their Relationship to Organizational Practices*, *Applied H.R.M Researches* 11 (1), 27-38



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

- Richards, E. B. (2009). Competencies as a behavioral approach to emotional intelligence, *Journal of Management Development*, 28 (9), 749-770.
- Robbins, S. P., Judge T. A. (2009). *Essentials of Organizational Behavior*, Pearson College.
- Ross, P. K. & Bamber, G. J. (2000). Deregulation, Downsizing and Outsourcing at Telecom New Zealand and Telstra: Towards an explanation of employment relations strategies in terms of transaction costs economics, *Research and Practice in Human Resource Management*, 8(1), 93-109.
- Sang-Long, C. and Wan Khairuzzaman, W. and Salmiah, M. A. (2010). An Exploratory Study on the Malaysian Human Resource Professionals In The Manufacturing Sector, *International Journal of Business and Society*: 11 (1), 89-105.
- Schuler, R.S. and Jackson, S.A. (1989). Determinants of Human Resource Management Priorities and Implications for Industrial Relations, *Journal of Management*, 15(1), 89-99
- Scott-Jackson, W. B. (2008). *HR is Business: Achieving competitive advantage through strategic talent management*, Oxford Brookes University Business School, Oxford.
- Slomp, J., Yue, H., Molleman, E., Van Der Zee, D. J. (2008), Worker Flexibility In A Parallel Dual Resource Constrained Job Shop, *International Journal of Production Research*, 46 (2), 451-467.
- Sunil, J. R. (2006). HR Competencies and Their Relationship to Organizational Practices, *Performance Improvement*, 45 (5), 32-43.
- Sunil, J. R. (2006). Identifying and Understanding HR Competencies and their Relationship to Organizational Practices, *Applied H.R.M. Research*, 11 (1), pp. 27-38.
- Sunthonkanokpong, W., Jitgarun, K. and Chaokumnerd, W. (2011). Competence Development in the Electronics Industry in Thailand. *Research and Practice in Human Resource Management*, 19(1), 53-68.
- Sushmita, B. W., and Gopa, B. (2010). Workforce Reduction & HR Competencies: An Exploratory Study, *The Indian Journal of Industrial Relations*: 46 (1), 100-111.



**Competency Matrix for Strategic Human Resource Management in
Malaysia Telecommunication Industry**

Revista Publicando, 5 No 15. (2). 2018, 166-198. ISSN 1390-9304

Willems, J. R., and Ketler, K. (1999). Telecommunications Issues: the Information Systems Managers' Viewpoint. *Industrial Journal & Data Systems*, 99 (2), 81-88.

Wright, P. M., McMahan, G. C., and McWilliams, A. (1994). Human Resources and Sustained Competitive Advantage: A Resource-based Perspective. *International Journal of Human Resource Management*, 5(2), 301-326.

Telekom Malaysia Berhad Annual Report, (2006). Malaysia: Telekom Malaysia

Youngdahl, W. E., and Loomba, Arvinder, P. S. (2000). Service-driven Global Supply Chain. *International Journal of Service Industry Management*, 11 (4), 329-347.