

**COMPETENCIES INDEX DEVELOPMENT: THE CASE OF
MALAYSIAN TOURISM AND HOSPITALITY GRADUATES**

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ABSTRACT

The study derived with four stages of index competencies for the Malaysian tourism and hospitality graduates. The first stage composed of 73 items generated from previous literature. The second stage included of 30 experts to verify the competencies derived and the results showed only 40 items remained to be further tested. The next stage followed with the items reliability analysis through a pilot study of 60 respondents. The results indicated high alpha value above 0.5 hence they were further tested in the final stage of index development using 116 respondents. The results emphasized that the index competencies for the Malaysian tourism and hospitality graduates consisted of eight domains namely Management and Technology, Leadership, Organizational, Personal Effectiveness, Business-Oriented, Self-Oriented, Customer Related and Innovative. The index competencies may assist the academic institutions specifically in Malaysia towards producing more quality tourism and hospitality graduates to serve the industry for future challenges.

Keywords: index, competencies, tourism, hospitality, graduate, Malaysia

1.0 INTRODUCTION

Malaysia has tremendously developed tourism and hospitality educational institutions to produce more quality graduates to fulfill the industry needs such as Universiti Teknologi MARA, Universiti Utara Malaysia, Universiti Malaya, Universiti Malaysia Sabah, Universiti Sains Malaysia, Taylor's University College, Begi University College, Damansara Utama College and Limkokwing University of Creative Technology. Due to the increasing demand for tourism and hospitality graduates, the educational institutions in the country have given vital attention to the competencies required by the industry (Zahari, Hanafiah, Othman, Jamaluddin & Zulkifli, 2010). In fact, two hotel sectors have offered full time and short courses for the tourism and hospitality graduates namely Berjaya University College and Legend International College.

With so many institutions in Malaysia offering the program, the competencies of the produced graduates has become major issue in the tourism and hospitality education. The industry wants to recruit graduates who are excellent both in theory and practice which eventually reflects the competencies provided by the educational institutions. Hence the competencies required by the industry need to be acknowledged by the educational institutions in order to produce quality graduates. This study intent to develop an index as indicator to determine the quality of Malaysian tourism and hospitality graduates competencies which are in line with the industry requirements.

2.0 RELATED LITERATURE

Many studies stressed on the significance of competencies for the tourism and hospitality graduates in order for them to perform in the industry (Barrows & Walsh, 2002; Goodman & Sprague, 1991; Jayawardena, 2001; Littlejohn & Watson, 2004; Zopiatis, 2010). It is noted that the human resource competencies which compass of coaching, training, negotiating, disciplining, and handling difficult people is vital for the tourism and hospitality graduate (William & Hunter, 1991) and further, the tourism and hospitality education should consists of five broad competencies including marketing orientation, service delivery systems, human resources, physical assets, and management structures and policies (Barrows & Hobson, 1993). Additionally, human relation is considered as the most significant competency within the top rated grouping which involves areas such as guest care, employee relations, professionalism and communication (Baum, 2006) while communication is viewed as very important criteria for the hiring process of the tourism and hospitality graduates (Geissler & Martin, 1998).

Various models of competencies are developed for the purpose of producing qualified graduates (Breen, Walo & Dimmock, 2004; Colyer, 2000; Dimmock, 1999; Quinn, Thompson, Faerman and McGrath, 2003; Walo, 2000;). A competency model is defined as an integrating education and training, aligning both with the needs of the labor market and promoting mobility for individuals (Delamare Le Deist & Winterton, 2005; Van der Klink & Boon, 2002). It is important to note that a competency model describes the qualities required of a worker to be successful in a position, on a team to achieve or

exceed the strategic goals of the organization (Delamare, Le Deist & Winterton, 2005; Teodorescu, 2006).

Generally, Competencies Value Framework (CVF) developed by Quinn *et. al.* (2003) offers an opportunity to examine key managerial skills and competencies based on organizational theory. It is also considered versatile to be applied to all industry sectors as it takes a more general approach to management competencies and skills necessary for managers to be effective. In addition, the values and principles of CVF are also applied by other researchers and are accepted as a standard model in the Australian context (Dimmock, 1999; Colyer, 2000; Walo, 2000; Breen *et. al.*, 2004). Further, in Australia, an Australian Quality Framework was developed for a purpose to standardize qualifications and to present graduates with certificates that open the door to employment (Australian Chamber of Commerce and Industry, 2002). The framework covers comprehensive tasks associated with different jobs in the industry which includes detailed sets of procedural steps for instance housekeeping and bar work.

On the other hands, Margerison (2001) proposed a team competency model based on the fact that with global competition and technological advances, organizational success is depending more on team efforts rather than individual. The model involved performance being assessed on nine competencies. Additionally, the Employment and Training Administration (ETA) developed by the Australian Chamber of Commerce and Industry (2002) focuses on skills acquisition and assessment to the competency model process for determining the needs of business and employers and the requirements of skilled workers. The ETA consists of nine generic skill groups similar to the “employability skills” framework proposed in a study by Australian industry representative groups.

As for the tourism and hospitality industry, Sandwith (1993) developed a model consists of several items such as empowering employees and building an effective team under the leadership domain. The administrative domain includes competencies such as accounting and finance and personnel management. In addition, the interpersonal domain includes competencies such as writing effectively, speaking clearly and listening. Bach and Milman (1996) demonstrated four clusters of skills required by the hospitality industry namely Business functional areas (marketing, accounting and finance); Hospitality & Tourism functional areas (accommodations, food service, travel, transportation and travel agency); Personal skills (individual characteristics or traits of an effective manager) and finally Analytical skills (ability to master various types of information through computer literacy, research, report and many more). Further, Kearns (2001) offered a model for clustering the generic skills which include the cognitive cluster, interpersonal skills cluster, enterprise, innovation and creativity cluster and work readiness and work habits cluster.

3.0 METHODOLOGY AND FINDINGS

The study involved four stages of index development adopted and adapted from Churchill (1979) and DeVellis (1991). For this particular study, the stages were named as, Stage 1:

Competencies Generation, Stage 2: Competencies Verification, Stage 3: Reliability Analysis and Stage 4: Competencies Index Development.

3.1. Competencies Generation

Most graduate's competencies were generated from previous literature. A pool of 73 competencies was compiled by taking into consideration the similar items which need to be combined as one item (Table 1). In order to verify these competencies, they were further tested for content validity and clarity using 30 experts from various sectors of tourism and hospitality. 33 competencies were eliminated from the list as the experts found the items did not represent tourism and hospitality graduate's competencies. Two items, *cultural understanding* and *cultural diversity* were eliminated probably due to the fact that these items were identified as 'items which did not represent competencies'. Several competencies were also classified as 'similar, redundant and confusing items' such as *management performance*, *organization performance*, *hotel organization performance*, *financial accounting skill*, *financial management skill*, *adaptability*, *adapt to change*, *legal aspect* and *ethical*. Additionally, several management and leadership competencies were also found to be as 'not representing competencies of tourism and hospitality graduate'.

3.2. Competencies Verification

The 30 experts were also used as respondents in this stage and were asked to rate the importance of competencies to be possessed by the graduates. The findings revealed that 40 items were consistent to be presented as tourism and hospitality graduates' competencies (Table 2). 86.7% respondents agreed that *communication skill*, *mathematical skill* and *business fundamental skill* as important items which must be possessed by the tourism and hospitality graduates in order for them to survive the challenges in the industry. 83.3% respondents also indicated *interpersonal skill*, *planning and organizing skill* and *motivation* as another important items which the graduates must have in order for them to work within the industry. In addition, 80.0% respondents emphasized *problem solving skill* and *recording skill* as another two competencies which significantly important for the graduates to possess before entering the industry.

Further, 76.7% respondents rated the *ability to work as teamwork*, *customer service skill*, *professionalism skill*, *coordinating skill*, *marketing skill* and *ability to control resources* as items which the graduates must consider before entering the industry. The findings also revealed 73.3% respondents agreed that three competencies must be provided by the educational institutions to the graduates namely *mentoring skill*, *preparing budget* and *ability touse tools*. Furthermore, 70.0% respondents reached a consistent result by indicating the *ability to inform information* and *staffing* as two competencies which the tourism and hospitality graduates must possess to face the challenges in the industry.

Additionally, the findings also indicated 66.7% respondents agreed that *technology awareness* and *reading skill* as important competencies for the graduates. Only 63.3% respondents rated *writing skill* as less important competency. This was followed by 60%

respondents named *critical thinking skill, monitoring staff, computer application skill, networking and ability to support staff* as important competencies. 56.7% respondents rated the *ability to use technology and conflict resolution skill* as another less important competencies. Additionally, 53.3% respondents agreed that *integrity and ability to clarify company's objectives* presented the least competencies which graduates must have to work in the industry.

3.1 Reliability Test

All the items in the second stage were further tested using 116 tourism and hospitality graduates. The study used reliability test to estimate the degree to which a measurement is free of error. In addition, it applied the Cronbach's coefficient alpha to reflect how well the items in the tool are positively correlated to one another. The procedure involved calculating the average inter-correlations among the items measuring concept. A high internal consistency is indicated by alpha value of 1 and above. The findings indicated that all 40 competencies revealed high Cronbach's coefficient alpha value above 0.5 ranged from .830 to .784. Thus, the items were included in the final stage.

3.4. Competencies Index Development

The items in the final stage were tested using factor analysis to determine the number of domains derived. Table 3 depicts 11 domains with eigenvalues above one and all 40 items had factor loading above 0.4. Ten competencies loaded onto the first domain and were named MANAGEMENT AND TECHNOLOGY COMPETENCIES. All these items indicated eigenvalues of 12.078 and a variance of 30.194% with alpha value of .833. *Ability to use technology* indicated highest factor loading of .789 whilst *business fundamental skill* indicated lowest factor loading of .429.

The second domain was named LEADERSHIP COMPETENCIES and consisted of six items with eigenvalues of 3.592, a variance of 8.981% and alpha value of .879. *Motivation* indicated highest factor loading of .797 whilst *strategic planning* indicated lowest factor loading of .574. The third domain consisted of seven competencies with eigenvalues of 2.787, a variance of 6.969% and alpha value of .881. This domain was named ORGANIZATIONAL COMPETENCIES with *ability to delegate* indicated highest factor loading of .776 whilst *vision* indicated lowest factor loading of .420. In addition, the fourth domain derived with four competencies with eigenvalues of 2.029, a variance of 5.072% and alpha value of .761. The domain was named PERSONAL EFFECTIVENESS COMPETENCIES and consisted of *initiative* with highest factor loading of .786 whilst *critical thinking* with lowest factor loading of .467.

Three other competencies loaded onto one domain with eigenvalues of 1.819, a variance of 4.547%, alpha value of .688, and it was named BUSINESS-ORIENTED COMPETENCIES. The sixth domain derived with eigenvalues of 1.705, a variance of 4.261% and alpha value of .804. The domain which was named SELF-ORIENTED COMPETENCIES also consisted of three items. Further, two competencies loaded onto the seventh domain and the domain was named CUSTOMER RELATED

COMPETENCIES. The domain indicated eigenvalues of 1.385 and a variance of 3.463% with alpha value of .505. Another two competencies were found to be loaded onto one domain named as INNOVATIVE COMPETENCIES. The domain indicated eigenvalues of 1.296 and a variance of 3.241% with alpha value of .568. Three other domains consisted of only one item where consequently could not be tested for reliability, thus they were eliminated from the index namely *marketing skill, planning and organizing skill* and *networking*.

4.0 DISCUSSION

The main purpose of the study was to develop a standard index of competency for the tourism and hospitality graduates as required by the industry. Thus, the end result can be used by the educational institutions specifically in Malaysia to produce more quality tourism and hospitality graduates. Generally, the procedure of developing the index involved four stages. The first stage started by generating the graduate's competencies from the literature search. The process ended up with compilation of 73 competencies. All the items were grouped and those which redundant were eliminated from the list. Several competencies were found to be in line with other developed frameworks for instance, business management skills such as *marketing, business fundamental, accounting and finance, strategic planning* and *controlling resources*; and leadership skills such as *managing conflict, problem solving* and *teamwork*. In order to avoid bias, the task of determining which items may be similar and redundant was given to few experts from the academic institutions and human resource managers of tourism and hospitality industry.

However, it is noticed that two competencies which are *accounting and finance skill* and *listening skill*, did not derive in the analysis. It can be concluded that the tourism and hospitality industry in Malaysia probably had different perceptions regarding these competencies which the graduates should possess. They probably believe that *accounting and finance skill* are not vital and compulsory skills for the graduates in order to survive in the industry, therefore the task should be given to the accounting and finance graduates instead of tourism and hospitality. It can be understood that *communication skill* was perceived as the most important skill for the tourism and hospitality graduates since it can be found in most competencies models for instance, Sandwith's Model (1993), Four Clusters of Skills (Bach & Milman, 1996), CVF (Quinn *et. al.*, 1996), Australian Quality Framework (Australian Chamber of Commerce and Industry, 2002), Competency Framework (Margerison, 2001), ETA (Ennis, 2008) and Generic Skills Framework (Kearns, 2001). In simple words, the tourism and hospitality industry in Malaysia believes that *communication skill* plays a vital role for the graduates to survive in the industry thus in advance is perceived as a major factor used to evaluate the success of the graduates in the industry.

The 40 competencies confirmed in the second stage were then further tested for pilot study. Three items of interpersonal skills were found to be significant as they also consisted in other models such as *communication skill, reading skill* and *writing skill*. In

addition, several competencies of leadership were also found to be significant such as, *mentoring, supporting, conflict resolution* and *problem solving*. Personal effectiveness skills for instance *integrity* and *professionalism* are significantly derived in the pilot study as important items. This finding is consistent with few models for instance ETA (Ennis, 2008) and Australian Quality Framework (2002). The findings probably suggest that the graduates must have *integrity* and be *professional* in performing their task specifically in the tourism and hospitality sectors since they are dealing with various backgrounds of customers and employees.

The final stage involved factor analysis in order to identify domains and items represent the index. The analysis derived with 11 domains but only eight domains of competencies for tourism and hospitality graduates were confirmed since the other three domains comprised of only one item. The first domain which consists of 10 management and technology competencies are significantly in line to ETA (Ennis, 2008) which focuses on nine tier including management competencies. Additionally the domain is also similar to the model developed by Margerison (2001) which suggested the importance of technology in organizational success and the ETA (Ennis, 2008) which comprised of two technical competencies namely the industry-wide technical competencies and the industry-specific technical competencies. Thus, this domain significantly presents the most important graduate's competencies as perceived by the tourism and hospitality industry particularly in Malaysia.

The second domain which consists of six competencies are significantly related to leadership competencies except for *strategic planning*. As derived in Sandwith's Model (1993), the leadership skills are vital and eventually contributed as major domain in the model. Similarly, the findings conclude that the tourism and hospitality graduates need to have strong leadership competencies to be able to lead others and willing to be led by others in order to perform better task for achieving organization's vision. The third domain comprises of seven competencies which the tourism and hospitality graduates must have before and specifically while working in the industry. The domain significantly presents five vital organizational competencies in the tourism and hospitality industry which are consistent to CVF Model (Quinn *et. al.*, 1996). The competencies are also similar as what comprised in the internal process model of CVF. Eventually, these competencies need to be possessed by the graduates in order to organize the organization's management process particularly in dealing with the employees. Another two items namely, *ability to delegate* and *conflict resolution skill* however are seen more toward leadership skills even though they did not fall into the second domain. These competencies however can be seen in CVF Model under the category of human relations model and are consistent to the study by Barrows and Hobson (1993).

The fourth domain is referred as the competencies represent the tourism and hospitality graduate individually. As an individual with tourism and hospitality backgrounds, the domain reflects a personal characteristic of specific graduate. The domain which comprises of four major personal effectiveness competencies are similar to ETA (Ennis,

2008). Furthermore, these competencies are also categorized under the cognitive cluster of Generic Skills Framework (Kearns, 2001). Additionally, the competencies are labeled as interpersonal competencies similarly to the Four Cluster of Skills (Bach & Milman, 1996) and Sandwith's Model (Sandwith, 1993). Interpersonal competency is also emphasized by Alderson (1993) as a vital skill to increase cultural awareness among employers and customers in an organization. As for both *professionalism* and *integrity*, these skills are probably important to be possessed by the graduates since they are dealing with various backgrounds of customers internationally. The industry eventually believes that the tourism and hospitality graduates must build up these skills within themselves in order to survive in the future challenges.

The fifth domain is composed of three competencies related to the individual business-oriented which eventually similar to Sandwith's Model (Sandwith, 1993). It can be seen that these competencies may not be perceived as the most important competencies by the tourism and hospitality graduates but are considered important by the industry, thus they need to be considered by the educational institutions when preparing the curriculum structure. These competencies are also found in the ETA (Ennis, 2008) and as suggested by Barrows and Hobson (1993). The seventh domain consists of two major competencies which the tourism and hospitality graduates must have before and after entering the industry namely *customer service skill* and *problem solving skill*. Eventually, they are consistent to the studies by Ladki (1993) and Tesone and Ricci (2005).

Finally, the last domain consists of two competencies which are the *ability to work as teamwork* and *communication skill*. These competencies are significant to many studies regarding tourism and hospitality competencies such as Umbriet (1992), Breitner and Clements (1996) and Sneed and Heiman (1996). It is suggested that communication skill plays important role in determining the graduates' survival in the industry since they are directly involved with the customers.

5.0 CONCLUSION

The study provides a significant index of graduate's competencies for the tourism and hospitality programs, thus to produce more qualified and quality graduates according to the industry needs. It can be summarized that the developed index has gone through a systematic methodology approach and well established process of developing a standard index which can be applied in other related studies concerning the identification of graduate's competencies. In addition, the index also assists the Malaysian educational institutions to create and design an advanced tourism and hospitality programs by taking into account the required competencies. This eventually serves as a continuous lifelong learning process to fulfill the tourism and hospitality industry needs specifically in the case of Malaysia Educational Institutions.

Taking into consideration the competencies required by the industry, the educational institutions need to redesign the curriculum structure and should consider internship

program as a basis for developing graduates with the most important competencies. Additionally, the educational institutions must also consider the industry as the first step of preparing the initial idea for developing tourism and hospitality curriculum. Having a standard index, the educational institutions eventually would gain benefit in producing graduates who will perform better and survive the future challenges within the industry. Moreover, the educational institutions would also contribute to the increment of human labor supply specifically within the tourism and hospitality industry and generally to the other sectors.

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TABLE 1
An Item Pool of Graduates Competencies Generation

No.	Items	No.	Items
1	Interpersonal skill	38	Adapt to change
2	Ability to use technology	39	Ability to delegate
3	Initiative	40	Monitoring skill
4	Business orientation	41	Collective performance
5	Planning & organizing skill	42	Organization performance
6	Reliability	43	Listening skill
7	Communication skill	44	Writing skills
8	Ability to work as teamwork	45	Time management
9	Customer service skill	46	Legal aspects
10	Cultural understanding	47	Preparing budget
11	Enterprise skills	48	Financial management skill
12	Entrepreneurship skill	49	Financial accounting skill
13	Creative skill	50	Ethical
14	Learning skills	51	Analysis skill
15	Critical thinking skill	52	Research skill
16	Adaptability	53	Understanding theory
17	Problem solving skill	54	Hotel organization performance
18	System thinking skill	55	SWOT analysis
19	Flexibility	56	Policy
20	Integrity skill	57	Marketing skill
21	Professionalism skill	58	Mathematical skill
22	Cultural diversity	59	Motivation
23	Accountability	60	Training
24	Continuous learning	61	Current knowledge
25	Technology awareness	62	Ability to inform information
26	Mentoring skill	63	Ability to use tools
27	Vision	64	Selling skill
28	Coordinating skill	65	Computer application skill
29	Building trust	66	Recording skill
30	Management performance	67	Business fundamental skill
31	Decision making skill	68	Staffing
32	Conflict resolution skill	69	Networking
33	Reading skill	70	Ability to support staff
34	Negotiation skill	71	Strategic planning
35	Presentation skill	72	Ability to clarify company's objectives
36	Stress management skill	73	Ability to control resources
37	Developing subordinates		

TABLE 2
The Importance of Graduates Competencies (n=30)

No.	Competencies	% of Importance
1	Communication skill	86.7
2	Mathematical skill	86.7
3	Business fundamental skill	86.7
4	Interpersonal skill	83.3
5	Planning & organizing skill	83.3
6	Motivation	83.3
7	Problem solving skill	80.0
8	Recording skill	80.0
9	Ability to work as teamwork	76.7
10	Customer service skill	76.7
11	Professionalism skill	76.7
12	Coordinating skill	76.7
13	Marketing skill	76.7
14	Ability to control resources	76.7
15	Mentoring skill	73.3
16	Preparing budget	73.3
17	Ability to use tools	73.3
18	Ability to inform information	70.0
19	Staffing	70.0
20	Technology awareness	66.7
21	Reading skill	66.7
22	Writing skill	63.3
23	Critical thinking skill	60.0
24	Monitoring staff	60.0
25	Computer application skill	60.0
26	Networking	60.0
27	Ability to support staff	60.0
28	Ability to use technology	56.7
29	Conflict resolution skill	56.7
30	Integrity	53.3
31	Ability to clarify company's objectives	53.3
32	Reliability	50.0
33	Entrepreneurship skill	50.0
34	Flexibility	50.0
35	Ability to delegate	50.0
36	Initiative	43.3
37	Learning skill	40.0
38	Vision	36.7
39	Creative skill	36.7
40	Strategic planning	36.7

TABLE 3
Malaysian Tourism and Hospitality Graduates Competencies Index Development

Domains/Items	Alpha value	Factor loading	Eigenvalue	% variance
DOMAIN 1: MANAGEMENT AND TECHNOLOGY COMPETENCIES	.833		12.078	30.194
Ability to use technology		.789		
Ability to use tools		.758		
Computer application skill		.721		
Coordinating skill		.617		
Recording skill		.612		
Creative skill		.577		
Technology awareness		.511		
Entrepreneurship skill		.471		
Learning skill		.454		
Business fundamental skill		.429		
DOMAIN 2: LEADERSHIP COMPETENCIES	.879		3.592	8.981
Motivation		.797		
Ability to inform information		.765		
Ability to support staff		.714		
Mentoring skill		.641		
Monitoring staff		.583		
Strategic planning		.574		
DOMAIN 3: ORGANIZATIONAL COMPETENCIES	.881		2.787	6.969
Ability to delegate		.776		
Ability to clarify company's objectives		.741		
Staffing		.655		
Ability to control resources		.652		
Preparing budget		.637		
Conflict resolution skill		.514		
Vision		.420		
DOMAIN 4: PERSONAL EFFECTIVENESS COMPETENCIES	.761		2.029	5.072
Initiative		.786		
Reliability		.721		
Flexibility		.691		
Critical thinking skill		.467		
DOMAIN 5: BUSINESS-ORIENTED COMPETENCIES	.688		1.819	4.547
Professionalism skill		.815		
Interpersonal skill		.740		
Integrity skill		.527		

DOMAIN 6: SELF-ORIENTED COMPETENCIES	.804	1.705	4.261
Writing skill	.863		
Reading skill	.840		
Mathematical skill	.724		
 DOMAIN 7: CUSTOMER RELATED COMPETENCIES	 .505	 1.385	 3.463
Customer service skill	.667		
Problem solving skill	.541		
 DOMAIN 8: INNOVATIVE COMPETENCIES	 .568	 1.296	 3.241
Ability to work as teamwork	.806		
Communication skill.	.663		
 DOMAIN 9:		 1.281	 3.203
Marketing skill	.680		
 DOMAIN 10:		 1.195	 2.997
Planning & organizing skill	.875		
 DOMAIN 11:		 1.101	 2.753
Networking	.921		
