

Resilience and Competitiveness among Students in the Free Enterprise (SIFE) Program

¹Norasmah Othman, ²Hariyaty Ab Wahid and ³Haliza Hussein

¹Faculty of Education, Universiti Kebangsaan Malaysia, 45600 Bangi, Selangor, Malaysia

²Faculty of Management and Economics, Universiti Pendidikan Sultan Idris,
35900 Tanjong Malim, Perak, Malaysia

³Selangor Islamic Education Campus, Bandar Baru Bangi Mail Centre,
43657 Bandar Baru Bangi, Selangor, Malaysia

Abstract: The purpose of this study is to identify the relationship between resilience and competitiveness of students in the Higher Education Institutions (HEIs), who are actively participating in the SIFE Program in Malaysia. Resilience dimension in this study consist of resistance to stress, adversity and risk; while competitiveness dimension are strategic communications, planning and administration, strategic action, multi-cultural and self-management. About 124 HEIs' students who participated in SIFE National Exposition 2011 and 124 students who did not participated SIFE Program, were selected as respondents. Quantitative approach using the survey method was used in this study. Questionnaires were used as the main instrument to collect data and data obtained were analyzed using SPSS. Overall, the resilience of SIFE participants was found to be at a higher level compared to the non-SIFE participants. The level of competitiveness among the two groups of students was at a moderately high level. The result showed a very high positive correlation between resilience and competitiveness with the Pearson correlation coefficient value of 0.83. The implication of this study is the Ministry of Higher Education in Malaysia should encourage greater participation of university students in the SIFE program as an effort to strengthen the resilience and competitiveness among students.

Key words: Esilience, competitiveness, higher education, entrepreneurship, Malaysia

INTRODUCTION

As Malaysia faces problems with its quality of human capital and unemployment, it seeks to intensify the integrated development of human capital. Several studies have shown that Malaysian graduates of Higher Education Institutions (HEIs) entering the job market has underdeveloped employment skills. They are also said to have a shortage and mismatch of skills required by employers and the job market (Ministry of Higher Education, 2010; Nunez and Livanos, 2010).

The HEI System Tracer Study in 2010 showed that there are still many unemployed graduates at a worrying figure of 42,955 (24.6% of 2010 graduates). Yet, another 12,250 (7%) are still waiting for job placements. These figures point to a waste of highly educated human capital and therefore, the nation suffers economic losses for not being able to use its human resources effectively. Reasons for unemployment among graduates include a

lack of confidence to enter the work environment, choosing not to work and having no interest in working (Ministry of Higher Education, 2010).

Researchers in Malaysia including Abdullah *et al.* (2009) and Awang have disputed the resilience and competitiveness of graduates who are involved in business. This comes as a disappointment to the government and indicates that the country needs more workforce and entrepreneurs who have resilience and competitiveness to become agents of economic and social change (Othman *et al.*, 2012).

As a solution to the various problems described here, HEIs in Malaysia are urged to take the lead on the concept of social entrepreneurship which is the use of entrepreneurial strategies for social benefits as a new approach to support the New Economic Model (NEM) and at the same time to realize the nation's aspiration to produce more resilient human capital able to compete at the national and international level (Economic Planning Unit and World Bank, 2008; Latif and Abideen, 2012).

In response to the government's intention to produce graduates, who are competitive and resilient SIFE Malaysia Foundation has organized a program, known as Students in the Free Enterprise (SIFE) which is designed to encourage students to carry out community and economic activities for improving the social and economic status of local communities. SIFE is also a non-profit organization that acts in strong collaboration with business leaders and HEIs to mobilize university students to make changes in the community. The program participants consist of groups of students from various universities who apply the concept of social entrepreneurship to develop projects that can enhance the quality and standard of life of people in need. It is also reported that active SIFE students who have graduated are able to attain prestigious and competitive positions due to their involvement in SIFE which has been perceived as an added value in the work force.

In general, social entrepreneurship organized by SIFE participants is seen as an educational activity that can provide students with the opportunity to hone their self-potential in realizing their hopes and dreams as well as bring satisfaction to themselves and the community that has been provided with the social services (Tracey and Phillips, 2007; Litzky *et al.*, 2010). Therefore, it is relevant to conduct a special study to review resilience and competitiveness among SIFE participants in Malaysia in order to obtain a complete picture of the current state of these qualities so that the findings can contribute to the offer of an effective social entrepreneurship-oriented program in HEIs. Thus, the objectives of this study are as follows:

- Identify the current stage of resilience and competitiveness of SIFE and non-SIFE participants
- Examine the relationship between competitiveness and resilience of SIFE participants

Literature review: Resilience is an adaptive or adjustment trait that shapes and hones the skills of positive traits. It is a component of someone's attitude, who is trying to cope with stress, adversity and risk (Brown *et al.*, 2001; Sepehrian and Nobakhtfard, 2012). In this study, focused on students and education, the term resilience is used to describe the capacity to bounce back after enduring hardship and develop social, academic and vocational competence despite exposure to extreme stress or even stresses that are a part of daily living. The term has been used by Rirkin and Hoopman, since 1991 in some of their studies that are related to resilience in the context of

discussion regarding students, educators and education (Henderson and Milstein, 2003). Hall and Torres (2002)'s study shows that a lack of resilience to stress, inconvenience and risk may cause mental and physical disorders such as stress, anxiety, depression, headaches and stomachaches. Besides academic work, the main sources of stress among university students are related to issues of conflict and self-burden and students often experience physiological and emotional reactions when they are under stress. Studies have revealed that low levels of resilience and self-esteem are one of the causes of high stress and depression among students (Abdullah *et al.*, 2009).

Competitiveness is a term that has been discussed aggressively in the management literature in recent years (Kaloo, 2010). In the HEI context, Theme 2 Higher Education Strategic Plan, 2020 suggests that students' soft skills and competencies should be developed to produce graduates who have high employability and are able to compete in the global job market (Ministry of Higher Education, 2004).

Currently, the demand for skilled and competent workforce in various sectors has risen drastically to produce more competitive workforce in the labor market. However, a study of 567 executives in the education sector in the four states (Selangor, Kuala Lumpur, Penang, and Johor) shows that workers in this sector still have only a moderate level of competitiveness. Therefore, competency management that contributes to personal effectiveness is a key component to produce competitive workers who will ensure that an organization is well propelled toward achieving its objectives. To be competitive, an individual must have good management competency, regardless of whether he or she is a manager or holds another position (Slocum *et al.*, 2008).

Given the situation mentioned earlier, this study is conducted to measure the common resilience and competitiveness of university students, who are active SIFE students. The conceptual framework of the study is shown in Fig. 1.

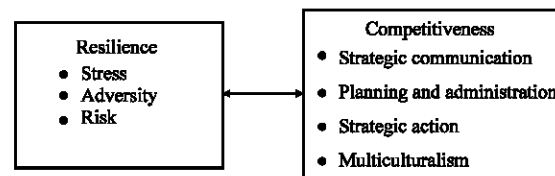


Fig. 1: Conceptual framework of the study [(Adaptation of the Resilience Model (Richardson *et al.*, 1990) and Self-Management Model (Slocum *et al.*, 2008)]

MATERIALS AND METHODS

This study surveyed a total population of 230 SIFE active participants from 23 HEIs that participated in the SIFE National Exposition in 2011. The study sample consisted of 160 SIFE participants and 160 non-SIFE participants from 16 HEIs that were selected using random stratification by dividing the HEIs into two strata, public and private universities. Then, a systematic non-proportionate random sampling was applied to obtain samples of both types of institution. The sample size of the study was 50% of the study population, consistent with the recommendations of Gay *et al.* (2009) who suggested that for a study of a survey form the sample must be at least 10-20% of the population. However, from 160 samples, only 124 SIFE participants and non-SIFE participants returned the questionnaire which was about 78%. According to Cohen *et al.* (2001), this amount was sufficient to enable a minimum level of field studies to be carried out with the percent of returned questionnaires between 70 and 80%.

One comprehensive set of questionnaires was designed. It included items to measure the dimensions of participants' resilience and competitiveness. Participants were asked to rate their agreement with each item on a 5-point Likert scale from 1 strongly disagree to 5 strongly agree. This was in accordance with Nunnally and Bernstein (1994) and Sekaran (2003) who agreed that Likert scale scores can be categorized as an interval scale if the total score of the items is used to measure a construct. Based on the recommendations mentioned earlier, the questionnaire was designed as consisting of three parts, Part A (10 items), for the purpose of obtaining the background information of the participants, Part B (26 items), to measure aspects of participants' resistance and Part C (46 items), to measure aspects of their competitiveness.

The items that were used to measure resilience were derived through references, adaptation and modification of items found in journal articles, published research findings, fundamental books related to resilience and existing instruments. The resilience construct studied here includes resistance to stress, adversity and risks as indicated in the Resilience Model (Richardson *et al.*, 1990). The Resilience Model was selected because it is suitable for all groups of people including both children and adults. Meanwhile, the dimensions and items to measure competitiveness were adapted and modified from the Self-Management Inventory (SMI) by Slocum *et al.* (2008) which aims to measure strategic communications, planning and administration, strategic action and multicultural and self-management. The SMI is a self-assessment instrument that has been administered

to managers and students of American universities and was referred by McEvoy *et al.* (2005) in building a competency-based model for human resource professionals (Slocum *et al.*, 2008; McEvoy *et al.*, 2005).

The constructs and the items in the study questionnaire were evaluated for their validity by six experts of resilience and four experts of competitiveness from the local universities. The minimum level of consensus for the constructs and items of resilience and competitiveness for this study was high as shown in Table 1 and 2 (interpretation of the levels are based on Table 3).

Meanwhile, the reliability of the questionnaire was tested to assess its internal consistency. According to Hair *et al.* (2006), the minimum value of Cronbach's alpha that may be applicable to newly built items is from 0.60-0.70. In this study, the Cronbach's alpha coefficient values obtained were 0.94 for both resilience and competitiveness. This result showed that the questionnaire had high reliability. Descriptive analysis of mean score and Standard Deviation (SD) were used to identify the level of resilience and competitiveness of the participants, after taking into account the recommendations of Nunnally and Bernstein (1994) and Neuman (2006a, b) who suggested that the determination of the level of a study's constructs by using the Likert scale of measurement should be given a simple index that involves a mean score and SD. Therefore, the students' level of resilience and competitiveness was measured based on the interpretation schedule of mean scores as presented in Table 3.

A Pearson's correlation test was applied to identify the relationship between the participants' resilience and

Table 1: Level of experts' agreement on the items and construct of resilience

Construct	Mean±SD	Agreement level
Stress	4.83±0.21	High
Adversity	4.87±0.13	High
Risk	4.97±0.05	High

Table 2: Level of experts' agreement on the items and construct of competitiveness

Construct	Mean±SD	Agreement level
Strategic communication	4.97±0.06	High
Planning and administer	4.95±0.06	High
Strategic action	4.75±0.16	High
Multicultural	4.93±0.08	High
Self-management	4.98 ±0.05	High

Table 3: The interpretation table of mean scores for determination of resilience and competitiveness level

Scale	Levels
1.00-2.00	Low
2.01-3.00	Medium low
3.01-4.00	Medium high
4.01-5.00	High

Table 4: The interpretation of the correlation coefficient

Correlation coefficient values (r)	Interpretation
0.01-0.09	Could be neglected
0.10-0.29	Low
0.30-0.49	Medium
0.50-0.69	High
0.70-0.99	Strongly high
1.00	Perfect

their competitiveness. The interpretation of the correlation coefficient with reference to Table 4, is as suggested by Davies (1971), to interpret the relationship between these two variables.

RESULTS AND DISCUSSION

This study involved 124 SIFE participants and 124 non-SIFE participants. Among the SIFE participants, 50 (40.3%) were male and 74 (59.7%) female of SIFE respondents, compared with 35 (28.2) male and 89 (71.8%) female in the non-SIFE group. The ethnic composition of SIFE participants is as follows: 91 (73.4%) Malay, 25 (20.2%) Chinese, 4 (3.2%) Indian and 4 (3.2%) other races. For non-SIFE participants, it is the following: 106 (85.5%) Malay, 12 (11.3%) Chinese and 4 (3.2%) other races. The level of participants' resilience includes their resistance to stress, adversity and risk as shown in Table 5.

Based on Table 5, resilience among participants in the SIFE program in Malaysia showed a high level in all three domains (i.e., stress, adversity and risk) in contrast with non-SIFE participants who demonstrated a moderately high level. Among SIFE participants, the mean score obtained for resistance to stress was (Mean = 4.07, SD = 0.46), compared with non-SIFE participants (Mean = 3.91, SD = 0.38) for resistance to adversity, the mean score was 4.07 (SD = 0.45), compared to non-SIFE participants who obtained 3.93 (SD = 0.42) and resilience against risk among SIFE participants showed a mean score of 4.07 (SD = 0.48) compared to non-SIFE participants whereby they obtained mean of 3.99 (SD = 0.42). Thus, the results clearly show that students who are active in SIFE have a high level of resilience to stress, adversity and risk.

Several studies have proven that there is a significant relationship between the cause of stress and stress, psychological disorders and problems among university students (Bojuwoye, 2002). However, this study has shown that active SIFE participants are not easily defeated by stressful situations. This is proven by the higher mean scores of resistance to stress among the SIFE participants (Mean = 4.07, SD = 0.46).

Active SIFE participants agree that they are independent in life and they will try their best to adapt to the social environment. They strive to maintain high

Table 5: Level of resilience (DT) of SIFE participants and non-SIFE participants

Resilience elements	SIFE participants		Non-SIFE participants	
	Mean±SD	Level	Mean±SD	Level
Stress	4.07±0.46	High	3.91±0.38	Moderately high
Adversity	4.07±0.45	High	3.93±0.42	Moderately high
Risk	4.07±0.48	High	3.99±0.42	Moderately high
Total	4.07±0.35	High	3.95±0.33	Moderately high

energy levels and are able to motivate themselves toward optimal performance. When they are being criticized, they do not give up easily but they are capable of providing constructive feedback and they keep calm when facing problems. SIFE participants are also able to manage and compose their emotions well in order to maintain human relations. The attitude shown by the SIFE participants in this study is consistent with the view of researchers of students' aspects of resilience from other countries such as Brown *et al.* (2001), Abdullah and Borhan (2007), Wagnild (2009) and Clarke and Nicholson (2010) and who hold the consensus that the individuals who can tolerate stress are those who have resilient criteria.

Several resilience tests by the Psychology researchers have found that being resilient depends on one's ability to achieve and persist despite difficulties (Henderson and Milstein, 2003; Esmaeili *et al.*, 2012). In fact, SIFE participants show inner strength with their high mean score of resistance toward adversity (Mean = 4.07, SD = 0.45). SIFE participants are found to be able to adapt to any changes and act quickly in a crisis. Even when they are hit by adversity, they remain motivated to work hard to achieve their desired objectives.

Hashim's study of 912 HEI students found that 38.5% did not want to be involved in entrepreneurial activity because they feared the risk. Moreover, they were not confident in their own capability and were reluctant as well as afraid of the environmental pressure. These findings do not align with the findings of this study; whereby participants in this study involve HEI students in the SIFE program. SIFE participants will find many alternatives to achieve their goals by regularly monitoring their self-achievement, believing that they can handle any risks that will hinder their success and trusting God in the face of a risky situation.

SIFE participants handle risks easily because they are trained to plan daily activities. They also always have the confidence to act despite knowing that their ideas will be rejected by others. However, some of the SIFE participants only receive assignments with limited risks. They usually consider the pros and cons of an activity before deciding to participate. This is proven by their high mean score of resilience against risk (Mean = 4.07, SD = 0.48).

Table 6: Level of competitiveness of SIFE and non-SIFE participants

Resilience elements	SIFE participants		Non-SIFE participants	
	Mean±SD	Level	Mean±SD	Level
Strategic communication	3.97±0.48	Moderately high	3.87±0.43	Moderately high
Planning and administration	3.94±0.47	Moderately high	3.80±0.42	Moderately high
Strategic action	3.96±0.46	Moderately high	3.81±0.53	Moderately high
Multiculturalism	3.99±0.54	Moderately high	3.80±0.51	Moderately high
Self-management	4.04±0.44	High	4.06±0.48	High

The level of students’ competitiveness that covers the aspects of strategic communication, planning and administration, strategic action and multiculturalism are shown in Table 6. Table 6 shows that the mean scores for both SIFE and non-SIFE participants are moderately high. Among SIFE participants, the aspect of strategic communication obtained a mean score of 3.97 (SD = 0.48); planning and administration, 3.94 (SD = 0.47); strategic action, 3.96 (SD = 0.46); multiculturalism, 3.99 (SD = 0.54) and self-management, 4.04 (SD = 0.44). As for the non-SIFE participants, strategic communication scored a mean value of 3.87 (SD = 0.43); planning and administration, 3.80 (SD = 0.42); strategic action, 3.81 (SD = 0.53) and multiculturalism, a moderately high mean score (Mean = 3.80, SD = 0.51). However, the mean score for self-management was high (Mean = 4.06, SD = 0.48). Overall, self-management had the highest mean score among the four aspects of competitiveness. The mean scores for all four aspects of competitiveness (i.e., strategic communications, planning and administration, strategic action and multiculturalism) were higher for SIFE participants than for non-SIFE participants.

The findings indicate that students who are active in SIFE portray good self-management skills as required by the job market. As the mean scores of strategic communications, planning and administration, strategic action and multiculturalism stand at a moderately high level, there is still room for the components to be polished. The relevant authorities should focus on improving HEI students’ performance in the components of competitiveness. In addition, the findings of this study also support those of previous researchers such as Yusuf, Othman and Pihie. Slocum *et al.* (2008) and Pihie and Elias (2008) which found that there are some competencies involving either university students, education sector workers or employees of the banking sector (Nikraftar, 2012) that need to be highlighted and enhanced. Similarly, competency-based management is a critical skill for individuals, students, managers and entrepreneurs to boost their competitiveness. A competent manager knows that self-awareness is very important to see the operations of an organization and his role within it.

The competency that has been recommended by the Ministry of Higher Education Malaysia is already found among SIFE participants as evidenced by the level of competitiveness that they have shown in the terms of self-management by obtaining a high mean score (Mean = 4.04, SD = 0.44). Active participants in the SIFE program admit that in terms of self-management, they have clear integrity and they always practice good ethics to enable them to have a better competitive advantage in an organized activity as well as in academic achievement. They are honest in academic competition despite having to tell others about things, they do not wish to hear themselves. They are also able to balance work and other activities, thereby participating only in the meaningful activities.

Strategic communication is the foundation of management success. By mastering communication competencies, a manager can extend his or her influence and effectiveness (Slocum *et al.*, 2008). This idea is supported by Eunson (2007) who states that communication is the main agent that must be controlled in order to strengthen good relationship within an organization, whether it is an educational organization or work organization. It is clear that the competitiveness of communication among the SIFE students is moderately high (Mean = 3.97, SD = 0.48) indicating that there is still room for the students to increase their competency. Nevertheless, SIFE participants who are involved in academic competition on campus admitted that they strive to find and listen for the information from others, even though they have different opinions. They can make other people feel comfortable by talking to them and showing sensitivity to their feelings. They also take action to inform others of relevant matters. For example in work presentation sessions focused on personality and academic achievement, they give convincing work presentations and have a high impact on other groups.

The competency to plan and administer is the third foundation of management success. It involves frequent observation and adjustment toward meeting the goals and needs of the organization, both internally and externally. To be competitive, student must acquire this competency.

This study proves that a high level of planning and administering can be achieved if students are given adequate and appropriate experience. Proven descriptively by a moderately high mean score (Mean = 3.94, SD = 0.47), the findings show that most of the participants agree they always apply planning and administration in their campus activities, especially SIFE activities by monitoring, acquiring and using information relevant to the project or activity that is being carried out.

The fourth foundation is strategic action, a competency that relies heavily on formal and operational skills to act in order to achieve a competitive advantage (Deursan and Dijk, 2008). With a mean score of 3.96 and SD = 0.46, SIFE students show a moderately high level of competency in strategic action in competitiveness. They agree that they understand the history and background of their organization and are well informed about competitors' actions. They also, can quickly identify any significant changes in the organization to remain competitive. They know, how the organization competes to achieve its goals. In addition to knowing the strength of the organization, understanding the organizational structure and how the is work done, they are able to adapt to the unique organizational culture. Their actions are guided by the organizational goals.

SIFE participants obtained a moderately high mean score of multiculturalism (Mean = 3.99, SD = 0.54). SIFE participants agree that they always follow the world events in politics and economics and they are able to identify the impact of global events on their organization. They also, have the ability to understand and speak more than one language. They attempt to adjust their behavior appropriately when interacting with people from various national, ethnic and cultural backgrounds. All these multicultural skills help SIFE participants to excel and form a positive multi-cultural network of friends and even competitors in order to achieve a competitive advantage in either SIFE activities or other campus activities.

As Table 7 shows the Pearson correlation analysis reveals that, as a whole, there is positive and significant correlation between the participants' resilience and their competitiveness ($r = 0.831$, $n = 124$, $p < 0.05$). Results of the analysis of the correlation based on the dimension of resilience indicate that there is a very positive and significant correlation between resistance to stress and competitiveness ($r = 0.73$, $n = 124$, $p < 0.05$), between the

resistance to difficulties and competitiveness ($r = 0.78$, $n = 124$, $p < 0.05$) and between resilience against risk and competitiveness ($r = 0.76$, $n = 124$, $p < 0.05$). The positive correlation indicates that the higher the level of participants' resilience, the higher the level of their competitiveness.

The findings of this study have proved empirically that there is a significant and positive relationship between the variables of the dimensions of resilience and competitiveness among SIFE participants ($r = 0.831$, $n = 124$, $p < 0.05$). The aspects of resilience could not be ignored in creating students' competitive advantage due to its various contributions that have been explained. This finding is aligned with the recommendation of Hadi (2003) which states that in the context of education, the appropriate competency to teach students is the ability to create competitive advantage within themselves. This notion stands in contrast to the findings of Sarwar *et al.* (2010) which finds that there is no relationship between students' resilience and their achievement.

Hence, in order to strengthen the resilience of HEI students, an appropriate educational approach should be reviewed and refined. Emphasis should be placed on the components of competitiveness covering the aspects of strategic communications, planning and administration, multiculturalism and strategic actions in order to ensure students' competitiveness and resilience. The SIFE program should be promoted more widely and effectively in order to attract more HEI students as well as enhancing their resilience and competitiveness.

CONCLUSION

The study finds that the current level of resilience among university students who are active participants in SIFE, is higher than that of non-SIFE participants. However, aspects of their current competitiveness must still be polished and their overall level of competitiveness is moderate. A positive relationship between the aspects of resilience and competitiveness shows that enhancing students' resilience can improve their competitiveness. It is suggested that longitudinal advanced studies should be conducted to assess the in-depth impact of the SIFE program on the resilience and competitiveness of HEI students as this study only reviews the current level of resilience and competitiveness of the participants in general. The findings of this study can serve as references for further study. The exposure to non-profit oriented programs such as SIFE should continue to be intensified and expanded to include more HEI students in order to achieve the aim of producing graduates who are more resilient and competitive. A successful effort such

Table 7: Analysis of Pearson correlation between dimension of resilience and competitiveness

Dimension of resilience	Competitiveness		
	n	r	p-value
Pressure	124	0.73	0.00**
Difficulties	124	0.78	0.00**
Risk	124	0.76	0.00**
Total Resilience	124	0.83	0.00**

**Significance level at $p < 0.01$ (2-tailed)

as that put forward by SIFE should be recognized because SIFE participants demonstrate a high level of resilience that can actually emphasize their competitiveness. It is hoped that continuous commitment and collaboration by the parties involved such as the university management and trainers, faculty advisors, Malaysia SIFE Foundation and industry practitioners that have been formed through the SIFE platform, can become the best example for the effort to improve the quality of human capital.

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