

Entrepreneurship Career Paths of Graduate Entrepreneurs in Malaysia

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Abstract: The purpose of this study was to explore the entrepreneurship career paths of Malaysian graduate entrepreneurs who graduated from local and overseas higher learning institutions between the years of 1988 to 2003. The paths explored in this study include career-changing phases starting from early career intentions up to business start-ups. This study also find out which entrepreneurship career paths mostly taken and least taken by the graduate entrepreneurs such as incremental path intuitive path, methodical path and accidental path based on their level of education, their field of studies (program majors) and whether local or overseas higher learning institutions attended. A set of questionnaire was constructed and a total of both 399 local and overseas graduate entrepreneurs were randomly selected from the total population of the graduate entrepreneurs. Descriptive statistics such as the frequency and percentage were used to present the graduate entrepreneurs' profile, their career-intentions changing phases and entrepreneurial career paths taken. The findings show that accidental path was the most taken entrepreneurial career path followed by methodical intuitive and incremental paths regardless of their level of education, field of studies and local or overseas higher learning institutions. The implications of the findings suggest that universities in the country should evaluate the effectiveness of their entrepreneurship programs's curriculum in terms of increasing the number of graduates choosing the intuitive and incremental paths to entrepreneurs.

Key words: Career paths, graduate entrepreneurs, entrepreneurship, university programs, curriculum

INTRODUCTION

The issue of unemployment among graduates was being discussed for decades in Malaysia. It was reported that in the year of 2004 itself about 80,000 graduates were unemployed. However, later the figure had been denied by the then Minister of Higher Education, respected Dato Dr. Shafie Salleh who claimed only 18,000 graduates were unemployed. Even though the figure was arguable, the issue should had been dealt with by all parties concerned since the last 10 years. Despite the debate, the number of unemployed graduates keep increasing since about 50,000 graduates from local and overseas higher learning institutions enter the Malaysian job market annually. The statistical shown in Table 1 shows 69,892 (18.9% of the total unemployment numbers) graduates were registered unemployed in 2003.

The statistics in Table 1 had clearly revealed the phenomenon. Thus, Datuk Khalid Yunus who was the then Deputy Minister of Entrepreneurship and Cooperatives Development called upon graduates to opt for entrepreneurship career instead of waiting to be employed. He advised the graduates to take advantage of the Graduate Entrepreneurs Scheme which was established in 1998. As of to date, only 3683 graduates had attended the course offered by the scheme

Table 1: Distribution of unemployment numbers according to the level of education and sex in 2003

Level of education	Male (%)	Female (%)	Total (%)
Non-formal	9196 (3.9)	4154 (3.1)	13313 (3.6)
Primary	33719 (14.3)	11 926 (8.9)	45855 (12.4)
Secondary	157279 (66.7)	83 482 (62.3)	240740 (65.1)
Tertiary	35606 (15.1)	34304 (25.6)	69892 (18.9)
Total	235800 (100.0)	134000 (100.0)	369800 (100.0)

Buletin of social statistics, Department of Statistics Malaysia 2004

and only 348 had applied for financing facilities from (The Graduates Entrepreneurs Fund). The number of graduates entrepreneurs who attended and took advantage of the financing facilities provided by the ministry was still unsatisfying. With reference to the still few numbers of graduate entrepreneurs in Malaysia, this study intended to find out whether the university education has some influence on their choice of entrepreneurship careers. In addition, to find out what are the career paths taken by these already few numbers of graduate entrepreneurs to become entrepreneurs. To understand these two phenomena, the researchers also try to find out what were their career-changing phases starting from early career intentions up to business start-ups Ronstadt (1982, 1984) pointed out that it is imperative to explore the entrepreneurial career paths of graduate entrepreneurs. His views was supported by Bird (1989) who proposed a model of push and pull factors which encourage individuals to be come entrepreneurs.

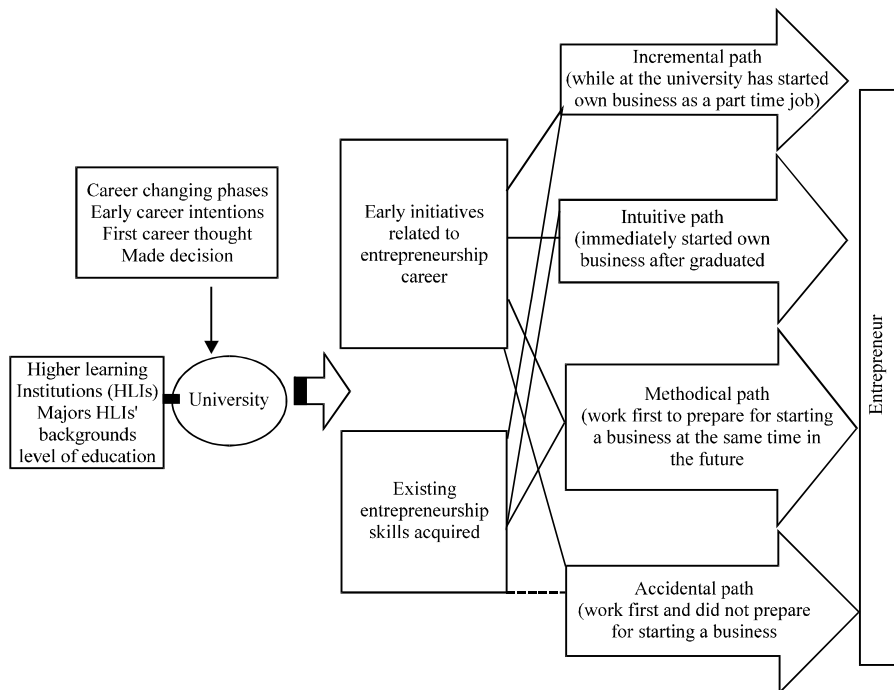


Fig. 1: Research conceptual framework (Ronstadt, 1982, 1984; Bird, 1989)

Research model: The career path model (Fig. 1) used in this study is adapted from Ronstadt (1984, 1982) and Bird (1989). This model explains the entrepreneurship career paths taken by university graduates and its relationships with their university education. The first three components in this model consists of the stages or phases of career changing intentions until the graduates really open up a business, early initiatives related to entrepreneurship career before starting a business and finally the existing entrepreneurship skills acquired by the graduates. Ronstadt (1982, 1984) had conducted a longitudinal study on the entrepreneurship career paths taken by the graduates from the Babson College. His samples include those from the certificate level until those who took Masters of Business Administration (MBA) degree. As compared to this study, the samples include those who had diploma degree and above. In terms of age, this study limits the samples' age up to 45 years old only whereas Ronstadt did not put a limit on it. Another difference between this study and Ronstadt's is the number of years the samples graduated from the universities are only between the years of 1988 and 2003 while Ronstadt's samples graduated between the years of 1928 until 1980. Ronstadt named the three entrepreneurship career paths at just path 1-3. However, when Richardson and Clarke did a different study on a different group of samples such as business managers he named his three paths as incremental intuitive and methodical which actually similar to the Ronstadt's three paths. Thus, this study uses the Richardson and Clarke's

career paths names and added one more career paths type based on Bird (1989)'s study. Bird named this path as accidental path.

Bird's entrepreneurship career choice model (1989) is based on the self factors and situational factors. Thus, this study also considers the early initiatives related to entrepreneurship taken in terms of self and situations by the graduates entrepreneurs before they started their business. This is in agreement with McClelland's views that entrepreneurs must have taken early initiatives before starting a business. These initiatives could include programs provided by the universities to attract students' interest to choose entrepreneurship career. Fleming (1996) in his study found out that university's programs could encourage graduates to become entrepreneurs. Timmons stressed the importance of identifying what early initiatives taken by an entrepreneur before the he or she took up the job. In this study, these early initiatives are referred to initiatives taken at the school level at the university level, lastly after graduated from a university and lastly initiatives taken to gather business capital. According to Bird (1989), there are four variables that would influence someone to choose an entrepreneurship career. Two of them are someone's awareness about his or her own ability and skills and understand the needs before involving in the entrepreneurship career. However, in this study the researcher did not focus on these ability or skills such as organizational management, financial management, marketing management, human resource management, communication skills, networking skills,

knowledge of information technology and global skills. To identify the relationship between the university education and the entrepreneurship behaviors of graduate entrepreneurs, this study look into the factors that influence their decision to become entrepreneurs. This study look at the two main factors which are internal factor (self) and external factor (situations). Bird (1989) pointed out that aspects of personality, experiences and backgrounds are three main aspects of the internal factor that would influence someone's decision to become entrepreneurs. Besides that socio-psychological factors such as level of knowledge, education background, social situations and aspirations also contribute towards entrepreneurship career choice. In terms of the aspects of the external factor that would contribute towards entrepreneurship career choice are push and pull force. They are socioeconomic aspects such as incubator support, change in the market demand, social system, economics situations and technology development. This study did not employ all of the variables in the Bird's entrepreneurship career model. However, this study divided the internal factor into two categories such as the cognitive dimension and the non-cognitive dimension. This is because according to Baron's perspective all of the thinking, behavior and speech of an individual are influenced by his or her mental process. The mental process is referred to the cognitive mechanism in the mind which include gathering interpretation and use of information. Matlin supports Baron's views by emphasizing the cognitive mechanism is the most valuable instrument in entrepreneurship because it can assist an individual to understand entrepreneurs and his or her role in the entrepreneurship endeavour. Sternberg also emphasizes the importance of cognitive functions in entrepreneurship such as decision making and problem solving relating to business opportunities evaluations.

The cognitive dimension of the self (internal factor) consists of five elements such as knowledge about a task, determination of goals, planning skills, problem solving and interest on the task. On the other hand, the non-cognitive dimension is divided into risk control, control by other parties internal locus of control, self-evaluation and tolerance of ambiguity. McClelland and McBer listed 13 entrepreneurship competences based on research found that identifying and grabbing opportunities, plan systematically, goal achievement and solving problems creatively are some of them. Based on these findings this study chosed goal achievement, plan systematically, problem solving as the elements for the internal factor and business opportunities as the external factor. In addition, other external factors include economic, social, political and market situations which are also referred to as push and pull forces. Finally with

reference to the same Bird's model, this study considered education backgrounds, higher learning institutions' backgrounds, program majors and entrepreneurship career paths of the graduate entrepreneurs as the independent variables. Prior early initiatives taken by the graduate entrepreneurs relating to entrepreneurship efforts both self-factors and situational factors, entrepreneurship skills acquired before starting up a business, cognitive and non-cognitive of the internal factors as dependent variables.

Research purpose: The objectives of the study are:

- To identify graduates entrepreneurs' profile
- To identify graduate entrepreneurs' career-changing phases starting from early career intention up to business start-up
- To determine the percentage of graduate entrepreneurs taking each type of entrepreneurial career paths such as incremental path intuitive path, methodical path and accidental path
- To find out if there is a difference in terms of the percentage of entrepreneurial career paths taken by the graduate entrepreneurs based on their level of education, the field of studies (program majors) and the background of their higher learning institutions

MATERIALS AND METHODS

The design of this study was a survey method. About 399 graduate entrepreneurs were randomly selected from the total Malaysian graduate entrepreneurs' population. A questionnaire were constructed by the researchers based on the literature reviews and studies conducted before. A pilot test of the questionnaire was administered on the 30 samples before collecting the real data. The reliability coefficient of the whole items was found to be 0.8934. Some of the items with low reliability coefficients were dropped and some were modified. The survey was carried out for five months from 1st February 2005-28th July 2005. Descriptive analyses such as the frequency and percentage were used to present the graduate entrepreneurs' profile, career-changing phases and types of entrepreneurial career paths taken by them.

RESULTS

Graduates entrepreneurs' profile: Table 2 shows the distribution of respondents according to sex, age, race and marital status. After doing the screening process based on certain criteria such as age range and level of education, 399 respondents were selected as samples. Based on Table 2, the graduate entrepreneurs comprised of 274 males (68.7%) and 125 females (31.3%). These

findings confirmed the findings of other studies in entrepreneurship conducted by Mohamed Amir Sharifudin, Tan and Tay (1996), Fleming (1996), Badrul Hisham, Margenhagen (1996) and Pasenan (2003) who found that men made up most of the entrepreneurs. Ronstadt (1984, 1982) also found that more males graduates than female graduates became entrepreneurs at Babson College. In terms of age, 42.4% (169) of the total number of the graduate entrepreneurs aged between 30-39 years old, followed by a total of 136 (34.1%) graduate entrepreneurs aged between 40-45 years old and finally 94 (23.6%) graduate entrepreneurs aged 29 years old and below. The age of the graduate entrepreneurs was almost similar to that of Ronstadt (1984, 1982)'s study where most of the entrepreneurs aged between 22-55 years old. The age range of 30-39 years old was the highest percentage of graduates who were entrepreneurs. This age range is similar to the findings of Abdul Rashid (1996)'s and Tan and Tay (1996).

About 80.7% of the graduate entrepreneurs were Malays, 12.0% were Chinese, 4.3% were Indians and 3.0% others. The percentage of each race of these graduate entrepreneurs is in congruent with the ratio of the Malays, Chinese and Indian population in the country. Similarly in Singapore, the percentage of entrepreneurs for each race is in congruent with ratio of her population such as in Kim (1996)'s study. Teo found out that among the women entrepreneurs in Singapore, 85.0%, of them were Chinese, 10% of them were Indians, 3.0% of them were Malays and 2.0% were others. In comparison with the study done by Abdul Rashid (1996), he found out that successful women entrepreneurs in Malaysia consisted of the Malay race for about 59.5%, the Chinese race for 28.4%, the Indian race for about 8.15 and 4.1% for other races. Next, Table 2 shows the marital status of the graduate entrepreneurs. A total of 308 (77.2%) graduate entrepreneurs were married while the remaining 91 (22.8%) were singles. These findings were similar with that of

Table 2: Profile of the respondents

Parameters	Frequency	Percentage
Sex		
Male	274	68.7
Female	125	31.3
Age		
<30 years old	94	23.6
30-39 years old	169	42.4
40-45 years old	136	34.1
Race		
Malay	322	80.7
Chinese	48	12.0
Indian	17	4.3
Other races	12	3.0
Marital status		
Married	308	77.2
Single	91	22.8

many entrepreneurial studies conducted in other countries such as Fleming (1996) in Ireland, Hisrich and Peters (1992) in the United State of America and Tan and Tay (1996) in Singapore which stated that entrepreneurs are usually married.

Mean while Table 3 shows the area of studies of the graduate entrepreneurs when they were in secondary schools. A total of 174 (43.6%) of them were of pure science background, 92 (23.1%) were of social science background and 89 (22.3%) were of commerce/economics-/accounting background. The other 44 (11.0%) of them were from technical and vocational background. The tertiary education level of the graduate entrepreneurs is also shown in Table 3. A total of 241 (60.4%) of the graduate entrepreneurs were first degree holders, 103 (25.8%) of them were diploma holders and the remaining 55 (13.8%) of them were with masters degree and PhDs. In terms of the field of studies (or programs) when they were studying at the higher learning institutions, 158 (39.6%) graduate entrepreneurs with business/economics/accountancy background, 122 (30.6%) with social sciences background and 119 (29.8%) with science and engineering background. Table 1 also shows a total of 227 (56.9%) graduate entrepreneurs were graduated locally and the remaining 172 (43.1%) were overseas graduates.

Table 4 shows the percentage of the graduate entrepreneurs's intentions on which type of career they wanted to be at different stages of education level such as at the pre-school level at the primary school level and lastly at the higher learning institutions. The changes in the percentages of the graduate entrepreneurs show their career changing phases through out their life. During the pre-school phase, 40 (10.0%) of the graduate entrepreneurs intended to be entrepreneurs followed by 76 (19.0%) to be doctors, 40 (10.0%) to be engineers, 26 (6.5%) to be lawyers, 109 (27.3%) to be lecturers or teachers, 24 (6.0%) to be managers, 20 (5.0%) to be accountants and the other 64 (16.0%) to be in the security

Table 3: Academic profile of respondents

Secondary school streams	Frequency	Percentage
Pure science	174	43.6
Technical and vocational	44	11.0
Commerce/Economics/Accounting	89	22.3
Social Science	2	23.1
Level of education		
Diploma	103	25.8
Bachelor	241	60.4
Post graduates	55	13.8
Field of studies (programme)		
Business/Economics/Accounting	158	39.6
Science and Engineering	119	29.8
Social Science	122	30.6
Background of higher learning institutions		
Local	227	56.9
Overseas	172	43.1

Table 4: Career changing phases of graduate entrepreneurs

Initial career goal	Pre school	School	Higher learning Institutions
Entrepreneurs	40 (10.0)	52 (13.0)	133 (33.3)
Doctor	76 (19.0)	62 (15.5)	26 (6.5)
Engineer	40 (10.0)	53 (13.3)	44 (11.0)
Lawyer	26 (6.5)	29 (7.3)	14 (3.5)
Lecturer/teacher	109 (27.3)	81 (20.3)	60 (15.0)
Manager	24 (6.0)	32 (8.0)	56 (14.0)
Accountant	20 (5.0)	44 (11.0)	35 (8.8)
Others	64 (16.0)	46 (11.5)	31 (7.8)

Prior job status	Working		No working experience
	Government	Private	
Doctor	15	3	-
Engineer	12	28	-
Lawyer	-	8	-
Lecturer/teacher	38	24	-
Manager	10	71	-
Accountant	4	16	-
Others	80	76	-
	93	230	76

Initial entrep. career goal	Frequency	Percentage
During school	51	12.8
Starting study	23	5.8
During study	53	13.3
After graduated	55	13.8
Working	217	54.4
Total	399	100.0
	400	-

Made decision to become entrepreneurs		
During school	35	8.8
Starting study	17	4.3
During study	53	13.2
After graduated	48	12.0
Working	246	61.7
Total	399	100.0

Triggered events		
Business opportunities	174	43.6
Reading entrepreneurs' success	90	22.6
Meet friends	53	13.3
Retrenched	7	1.7
Others	75	18.8
Total	399	100.0

professions such as police or military forces. Table 4 also shows the initial career goals of graduate entrepreneurs at school phase: 52 (13.0%) of them intended to be entrepreneurs, 62 (15.5%) to be doctors, 53 (13.3%) to be engineers, 29 (7.3%) to be lawyers, 81 (20.3%) to be lecturers or teachers, 32 (8.0%) to be managers, 44 (11.0%) to be accountants and the other 46 (11.5%) to be pharmacists or in police or military forces.

Table 4 also shows the initial career goals of graduate entrepreneurs during the tertiary learning phase. The 133 (33.3%) of them intended to be entrepreneurs, 26 (6.5%) to be doctors, 44 (11.0%) to be engineers, 14 (3.5%) to be lawyers, 60 (15.0%) to be lecturers or teachers, 56 (14.0%) to be managers, 35 (8.8%) to be accountants and the rest 31 (7.8%) of them intended to be pharmacists, scientists, police or military forces. It is obvious that the initial career goals of graduate entrepreneurs had changed over time

where the percentages to be entrepreneurs increased gradually from pre-school phase 10.0-13.0% during the school phase and 33.3% during the tertiary learning phase. According to Crites (1969) the changes in initial career goals were normal.

The changes might be due to the environmental factors or personal factors such as opportunities, economics and better academic qualifications. Besides that Table 4 also shows the majority (80.9%) of the graduate entrepreneurs worked first at the government or private sectors before venturing into business. While the remaining 76 (19.1%) of them ventured into business immediately after graduated. Based on the same table also 18 (4.5%) of the graduate entrepreneurs gained experiences as doctors, 40 (10.0%) as engineers, 8 (2.0%) as lawyers, 62 (15.5%) as lecturers or teachers, 81 (20.3%) as managers, 20 (5.0%) as accountants and the remaining 94 (23.6%) as pharmacists, programmers, optometrists, surveyors, pilots and architects. According to Bird (1989) working experiences are an advantage to the entrepreneurs-to-be because they could contribute to their credibility, performance and motivation when venturing into businesses. Even Kantis *et al.* (2002) found that working experiences was the main source (82.0%) of new business opportunities.

Majority of the graduate entrepreneurs got the idea of venturing into entrepreneurship career while working after they graduated. With reference to the findings shown in Table 4, a total of 217 (54.4%) of the graduate entrepreneurs had first thought of venturing into business while working followed by 55 (13.8%) of them upon graduated, 53 (13.2%) of them while in higher learning institutions, 51 (12.8%) of them while at schools and the rest 23 (5.8%) of them when starting their study at the higher learnings institutions. Table 4 also shows at which phase of education level the graduate entrepreneurs made decision to become entrepreneurs or venture into business. Majority (61.7%) of them were found to have decided while working after graduated, followed by 53 (13.2%) while studying, 48 (12.0%) upon graduation and 35 (8.8%) while in school. While the other 17 (4.3%) of them decided to venture into business when starting their studies at higher learning institutions.

Table 4 also shows the triggered events that had made the graduate entrepreneurs to decide to venture into entrepreneurship career. A total of 174 (43.6%) of them decided to do so when they had secured business opportunities, followed by 90 (22.6%) of them decided to do so after learning about the successful entrepreneurs, 75 (18.8%) of them decided to do so due to some unexpected incidences such as quitted job because of

Table 5: Percentage of entrepreneurial career paths taken by the graduate entrepreneurs

Entrepreneurial career paths	Frequency	Percentage
During studies (Incremental path)	36	9.0
Immediately after graduated (Intuitive path)	40	10.0
Work and preparing for the career (Methodical path)	149	37.3
Work and discover business opportunities (Accidental path)	174	43.6
Total	399	100.0

dissatisfaction or personal problems, poor or not enough money to support their life expenses, 53 (13.3%) of them after meeting friends who are entrepreneurs already and the other 7 (1.8%) of them due to job retrenched. These findings were similar to that of Cunningham (1996a, b) 's who found out securing opportunities was the most important event that drive someone to venture into business. Bird (1989) and Kantis *et al.* (2002) agreed with Cunningham that individuals who were able to secure business opportunities and displacement were the most important triggering events that push someone to venture into business. also found the same findings.

Entrepreneurial career paths: Table 5 shows that most of the graduate entrepreneurs (43.6%) took the accidental path which means that after graduated they worked with the government or private sectors and discover business opportunities within the job settings and decided to venture into the entrepreneurial career. In short, they did not plan to become entrepreneurs until they discover some business opportunities accidentally. On the other hand, the second highest percentage of paths taken by the graduate entrepreneurs was methodical path which scored a total of 149 or 37.3%. This group of graduate entrepreneurs purposely worked first and necessary preparations to venture into business sometimes between 2-3 years after that. The third highest percentage taken by the graduate entrepreneurs was the intuitive path. Forty (10.0%) of them of them ventured into business immediately after they graduated. Finally, only 36 (9.0%) of the graduate entrepreneurs took the incremental path in which they had started doing some part time small businesses during their studies at the higher learning institutions. These findings was quite similar with that of Ronstadt (1984, 1982)'s findings which found that most of the samples or the business managers (55.0%) ventured into business without prior planning but while woking with some organizations and discovered business opportunies. Also 21.0% of the business managers purposely worked first in other organizations and made the necessary preparations before venturing into business. The 20% of them ventured into business immediately after graduated from the Babson College. Ronstadt's findings show that most of graduate

Table 6: Entrepreneurial career paths taken by the graduate entrepreneurs based on the level of education

Entrepreneurial career paths	Level of education			Frequency (%)
	Diploma	Bachelor	Post graduates	
Incremental path	8	24	4	36 (9.0)
Intuitive path	9	25	6	40 (10.0)
Mehodical path	36	91	22	149 (37.3)
Accidental path	50	101	23	174 (43.6)
Total	103	241	55	399 (100.0)

Table 7: Entrepreneurial career paths according to the background of higher learning institutions

Entrepreneurial career paths	Higher learning local	Institutions overseas	Frequency (%)
Incremental path	23	13	36 (9.0)
Intuitive path	27	13	40 (10.0)
Methodical path	81	68	149 (37.3)
Accidental path	96	78	174 (43.6)
Total	227	172	399 (100.0)

entrepreneurs (80.6%) took the accidental and methodical paths to start their entrepreneurship career. Table 6 shows the numbers and percentages of entrepreneurial career paths taken by the graduate entrepreneurs based on their level of education. In terms of diploma level of education, 50 (28.7%) of the graduate entrepreneurs took the accidental path while 101 (58.0%) were first degree holders and the other 23 (13.2%) were post-graduates degree holders. About 36 (24.2%) of the diploma holders took the methodical path, 91 (61.1%) were first degree holders and the other 22 (14.8%) were post-graduates degree holders. Nine of the (22.5%) diploma holders took the intuitive path, 25 (62.5%) were first degree holders and the other 6 (15.0%) were post-graduates degree holders. Finally, out of those who took the incremental path, only 8 (22.2%) were diploma holders, 24 (66.7%) were first degree holders and the other 4 (11.1%) were post-graduates degree holders. Although, the samples of this study focussed on the graduate entrepreneurs who held the diploma degree and above as compared to the Ronstadt (1984, 1982)'s study which covered from the certificate level of education up to MBA holders, there were similarities between the two studies in terms of the percentages of choosing the entrepreneurial path according to the level of education.

Table 7 shows the findings for the entrepreneurial career paths according to whether the higher learning institutions were local or overseas. A total of 96 local (42.3%) graduate entrepreneurs ventured into business through accidental path as compared to the 78 (45.3%) overseas graduate entrepreneurs. This shows that both of the percentages are quite the same for both the local and the overseas graduate entrepreneurs. Eighty one or 35.7% of the local graduate entrepreneurs took methodical paths as compared to the 68 or 39.5% of the overseas graduate

Table 8: Entrepreneurial career paths according to the field of studies

Entrepreneurial career paths	Field of studies			Frequency (%)
	Business/ Economics and Accounting	Science and Engineering	Social Science	
Incremental path	18	7	11	36 (9.0)
Intuitive path	20	6	14	40 (10.0)
Methodical path	52	48	49	149 (37.3)
Accidental path	68	58	48	174 (43.6)
Total	158	119	122	399 (100.0)

entrepreneurs. This data also shows that both of the percentages are quite the same for both the local and the overseas graduate entrepreneurs in terms of the methodical path. Twenty-seven or 11.9% of the local graduate entrepreneurs took intuitive path as compared to the 13 (7.6%) of the overseas graduate entrepreneurs. This finding shows that more local graduate entrepreneurs took this path as compared to their counterparts from overseas graduate entrepreneurs.

Finally, the remaining 23 (10.1%) of the local graduate entrepreneurs took incremental path as compared to the 13 (7.6%) of the overseas graduate entrepreneurs.

Table 8 shows the numbers and the percentages of the graduate entrepreneurs' entrepreneurship career paths taken based on their field of studies (program majors). The findings show that the graduate entrepreneurs from the science and engineering majors who took the accidental path scored the highest percentage that is 48.7% (58 of 119), followed by the graduate entrepreneurs from the business/economics/accounting majors that is 43.0% (68 of 158) and 40.2% (49 of 122) of the graduate entrepreneurs were from the social science majors. The graduate entrepreneurs from the science and engineering majors also scored the highest in terms of taking the methodical path (48, 40.3%) as compared to their counterparts from the business/economics/accounting majors (52, 32.9%) and (48, 39.3%) from the social science majors. Interestingly, 12.7% (20) of the graduate entrepreneurs from the business/economics/accounting majors scored the highest in terms of the intuitive path taken followed by the social science major graduate entrepreneurs which was 11.5% (14 of 122) and only 5.9% (7 of 119) from the science and engineering majors. Finally, for the incremental path taken among the graduate entrepreneurs, those from the business/economics/-accounting majors scored 11.4% (18 of 158) which is the highest as compared to 9% (11 of 122) from the social science majors and 5.1% (6 of 119) from the science and engineering majors.

DISCUSSION

Recently in Malaysia, entrepreneurship is widely discussed and focused by many quarters. Entrepreneurship not only mobilizes personal

development but also act as a catalyst for spurning a nations's economics development. Good economic development then help the growth of employment opportunities, production of quality services and new products in a country. In the era of globalization and liberalization, the demand for creative innovative and competitive entrepreneurs has become more significant. Thus, the effort of developing entrepreneurs has shifted to increasing more educated entrepreneurs to help boost the economy faster. This study intended to find out how graduates becomes entrepreneurs. Most of the graduate entrepreneurs became entrepreneurs through accidental path, that is they changed their careers when they discovered business opportunities while working. This situation shows that the universities did not play a good role in encouraging them to become entrepreneurs. However, many of them became entrepreneurs through methodical path, that is they had to work first and made some preparation relating to their future entrepreneurship careers such as financial capital and making business plans.

There was not a satisfying numbers and percentages in terms of those graduates who became entrepreneurs either intuitively or incrementally. This issue had to be looked into by the Malaysian government because it implies that the universities are not facilitating the graduates to become entrepreneurs. The findings also show that the accidental path and the methodical paths seemed to be the most taken paths regardless of the graduates' level of education and field of studies. Both overseas and local graduate entrepreneurs took almost similar entrepreneurial career paths such as the accidental and methodical paths to become entrepreneurs regardless of their field of studies (program majors). Analyzing in a more detailed manner, the field of studies taken by the graduate entrepreneurs while they were studying at their higher learning institutions had certsome influences on the choice of entrepreneurial career paths. The percentage of graduate entrepreneurs with business/economics/-accounting backgrounds were the highest to choose intuitive entrepreneurial career paths compared to those from science/engineering and social science fields. In addition, the level of education contributed to their entrepreneurial career intentions. For example, as they moved from the primary school to the secondary school and the universities, the percentage of changing career intentions to become entrepreneurs also increased.

CONCLUSION

This study should help those responsible in the development of graduate entrepreneurs to learn what are the weaknesses of the country's New Economic Policy (NEP). For example, only 19% was achieved from the 30%

target of producing the indigenous group of entrepreneurs. If the number of undergraduates exposed to entrepreneurship career is large, the higher the percentage of them becoming entrepreneurs almost intuitively or incrementally.

A different approach is in educating the undergraduates to become entrepreneurs should be designed by the universities in order to increase the effectiveness of the entrepreneurship development programs.

Consequently, the scrolls should not be treated as a passport to secure employment only but also as a preparation to venture into business. As the number of graduate entrepreneurs increased, this would set the stage for more business innovations and technology developments which develop the economy better.

IMPLICATIONS

The implications of this study are many. One of them is universities should evaluate the effectiveness of the curriculum of the current programs relating the entrepreneurship development among the undergraduates and the diploma holders. It seems that the entrepreneurship development programs are not successful in increasing the number of graduates to become entrepreneurs immediately or intuitively according to the terms used in this study. As stated above only about greater or <10% become entrepreneurs through this path. Another implications of this study is the universities should look into how these graduates can be linked to the supporting agencies outside the universities which are run by the various ministries to help the graduates with the needs to become entrepreneurs.

Those needs might include financial assistance and trainings in business management and others. This step is very important because most of the graduates came from the low income families and with no business experiences.

Another suggestion is the universities should spend money and training on the undergraduates who have the most entrepreneurial potential regardless of their field of studies. The universities can administer an entrepreneurship index instrument on them and choose those with a good entrepreneurship index to go through their programs. Finally, necessary incentives should be provided to the right graduates who had shown their interest and potential to succeed as entrepreneurs in the future.

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