

IMPACT OF AGE AND EDUCATIONAL BACKGROUND ON PRIOR KNOWLEDGE OF TECHNOLOGICAL MICROENTREPRENEURS IN LAGOS STATE, NIGERIA

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This study assesses the level of knowledge of technology-based micro-entrepreneurs and investigates the impact of entrepreneur's age and education on their prior knowledge. The study was carried out in Lagos State, Nigeria. Survey method was used. Two hundred and twenty-five firms participated in the study. Among others, the results show ($p < 0.05$) that there is a significant association between age and entrepreneur's comprehensive knowledge set. Also, there is a significant association between educational background and knowledge of how to serve market and between educational background and familiarity with customers' problems. However, no significant association was found between educational background and rich knowledge about market. If micro-entrepreneurs will be able to perform satisfactorily, there is a need to encourage adequate education and physical maturity before venture creation.

BACKGROUND

Micro and small scale enterprises are generally regarded as instrument of economic growth and development. In developing countries, governments have made efforts and have formulated policies to enhance the capacity of micro and small businesses. However, in spite of governmental policies and supports micro and small enterprises have fallen short of expectations. This has become a serious issue of concern to the government, policy makers, researchers and other stakeholders. Many wonders whether micro and small firms in developing countries will ever be capable to bring about economic growth and national development like their counterpart in developed countries. For example, microenterprises are important components of the Nigerian economy, comprising a significant proportion of the country's informal sector. Without any empirical study, one may conclude that they form the majority of existing firms. These microenterprises are important to the Nigerian economy because they offer employment to

the otherwise unemployed youths, and generate income for the owners. However, a financial and business consultant, Tunde Oloyede commented at a training workshop that microenterprises in Nigeria, in its present state, contribute poorly to the export earnings and Gross Domestic Product (GDP) of the country and would remain in this dismal state except obvious challenges faced by these enterprises were addressed.

Poor performance of micro and small scale entrepreneurs in Nigeria may be attributed to their level of business-related knowledge. The situation of things in Nigeria such as high rate of unemployment and poverty has resulted into many people finding succor in entrepreneurial activities which they did not prepare for. Hence, people of different age groups and levels of education have become micro and small scale entrepreneurs. Such entrepreneurs may not bother about business growth because their main concern is to make ends meet.

If micro and small scale entrepreneurs in Nigeria will become agents of economic growth as their counterparts in developed countries, their operations must be supported by the government and non-government organizations that have enterprise development as their goals; and this group of people needs evidence-based information on which they can build their actions, policies, interventions and programs. Towards this end, there is a need for research on the activities of this category of entrepreneurs so as to provide needful information that would guide such actions and policies. Therefore, this study aimed at providing empirical evidence on the level of business-related knowledge possessed by micro entrepreneurs in Lagos State, Nigeria, and the effect of entrepreneur's age and education on this.

Presently, there is dearth of information on the nature of prior knowledge possessed by micro-entrepreneurs in Nigeria. It is true that the activities of small enterprises have caught the attention of researchers in developing countries; but the subject of prior knowledge has not been focused on, especially in Nigeria where this study was conducted. In this paper, two major questions are addressed: (i) what is the level of knowledge possessed by the entrepreneurs? And (ii) how do age and educational background of the entrepreneurs affect their prior knowledge? Similar studies on this subject are not known to us. Previous researches (outside Nigeria) have focused on the impact of knowledge and technological innovation (Tang and Murphy, 2011), knowledge and entrepreneurial opportunity identification (Shane, 2000), knowledge and finance (Seghers, Manigart, and Vanacker, 2011), knowledge and network ties (Sullivan and Marvel, 2011), knowledge and business growth (Chrisman, McMullan and Hall, 2005), knowledge and information processing (Yu, 2001) and the likes. Research on prior knowledge among micro and small enterprises is not quite robust. The goal of this research is to expand the stream of research on micro and small enterprises in developing countries. Findings from this study will be valuable in designing and implementing policies and programs that could enhance the performance of the entrepreneurs.

Can entrepreneur's age or education influence their prior knowledge? Some studies have established some forms of relationship between those two explanatory variables and the dependent variable prior knowledge. Entrepreneur's age, has been argued to affect commitment to the status quo as well as willingness to accept change (Hambrich and Mason, 1984); and that, age changes an individual's perspective, belief systems and network (Richard and Shelor, 2002). We propose that this may somehow be linked to experience which grows as age advances and hence, knowledge which may relate to accumulated experience. Also, education, according to Bantel (1993), is an indication of an individual's knowledge, skills and influence, as well as a reflection of individual's information processing capacity.

LITERATURE REVIEW

Previous studies have established the importance of prior knowledge in business development (Tang and Murphy, 2012). Prior knowledge refers to idiosyncratic information about a particular subject such as the knowledge that accumulates through work experience (Cooper, Gimeno and Woo, 1994) or education (Gimeno et al, 1997). Entrepreneur's knowledge accumulates over relatively long stretches of time, such as the knowledge gained from experience in an industry or formal education (Becker, 1964). Prior knowledge as a resource raises an entrepreneur's familiarity with many different aspects of a business

setting based on a history of professional activities and interactions with customers and competitors (Tang and Murphy, 2012). Prior knowledge, when it is assimilated and integrated into venture operations, enhances sense making (Delmar and Davidsson, 2000), strategic management decisions (Hitt et al., 2001), venture performance (Gimeno et al, 1997) and entrepreneurial discovery (Corbett, 2007). Acquisition of relevant knowledge is expected to be advantageous to new venture development and is regarded as a resource contributing to a competitive advantage. The resource-based view (RBV) (Barney, 1991) and the knowledge-based view (KBV) (Conner and Prahalad, 1996; Grant, 1996) assert that knowledge is a primary resource for achieving favorable entrepreneurial outcomes. This is because "...privately held knowledge is a basic source of advantage in competition" (Conner and Prahalad, 1996) and accumulating knowledge can help propel entrepreneurs as they develop and grow their firms (Ghosal and Moran, 1996). This is because knowledge enhances an entrepreneur's ability to explore opportunities (Penrose, 1959).

Individual's business knowledge when related to entrepreneurial outcomes has advantages (Davidsson and Honig, 2003; Shepherd and DeTienne, 2005). Shane (2000) posits that the more knowledge individuals possess the better able they are to identify entrepreneurial opportunities. Other benefits include achievement of higher levels of efficiency when completing job-related tasks (Kor, Mahony, and Michael, 2007), and development of solutions to challenges that are encountered (Yu, 2001). More importantly, knowledge is critical to the process of innovation. What an organization knows determine what it can do. Knowledge is an asset and it is the critical resource that sets a firm apart from others (Kogul and Sander, 1996). It can constrain and direct a firm's ability to take action and differentiate itself from competitors (King and Zeithaml, 2003). Knowledge assets may enhance a firm's chances of creating and implementing innovations (Hage and Aiken, 1970) which, in small firms, is associated with good performance and growth (Cakar and Erturk, 2010). Also, existence of successful innovation in small firms is required for countries' future growth and prosperity (Oscelik and Taymaz, 2004).

Prior knowledge has been established to have three components (Shane, 2000) – rich knowledge about market, knowing of how to serve market, and familiarity with customers' problems. Prior knowledge of market entails possessing information about how particular markets operate. This type of knowledge is obtained through experience and heralds a more specific stock of information that can become tentative as a market evolves. Knowing how to serve market means knowing how to meet customers' needs, and not just knowing what those needs are (Shane, 2000). Knowledge of specific customer problems involves knowing what customers would prefer instead of other alternatives (Shane, 2000), and is instrumental in developing new products and services in which potential customers will respond positively (Tang and Murphy, 2012).

METHODOLOGY

Data for this study were collected in Lagos State, Nigeria. Primary data were collected for the study. Two hundred and fifty questionnaires were administered but two hundred and twenty five firms participated in the study. Multi-stage sampling technique was adopted. The scale for measuring prior knowledge followed Shane (2000). The scale comprised three items (i) I have rich knowledge about market, (ii) I know how to serve market, and (iii) I am familiar with customers' problems. Respondents were asked to rate themselves on a scale 1 – 5, where 1 was strongly disagree and 5 was strongly agree.

RESULTS AND DISCUSSIONS

Although gender was not a basis for selecting the respondents, the results of the data analysis showed that sixty per cent of the respondents were female. This corroborates the generally believed notion that micro-firms are majorly run by women and aligns with the submission of Scarborough (2011) that small business has been a leader in offering women opportunities for economic expression through entrepreneurship.

Most of the respondents were relatively young. Majority (44.0%) was between 25 and 35 years of age; 20.4% was less than 25 years; and the rest were above 35 years of age. Majority being between 25 and 35 years is expected to be advantageous. At that age range, they are supposed, all things being equal, to have graduated from college; or to have acquired a good educational level and/or professional skills. More so, previous studies have associated this age range to good performance, especially in the area of innovation activity (Wiersema and Bantel, 1992; Guthrie and Olian, 1991; and Campbell, 1977). Young people starting their own businesses, is now a global phenomenon. For example, Scarborough (2011) states that young people that are disenchanted with their prospects in corporate America and willing to take a chance at controlling their own destinies are choosing entrepreneurship as their career path. Also, according to Global Entrepreneurship Monitor (GEM), people in the United States in the 18- to 24-year-old range are launching businesses at a faster rate than those in the 35- to 44-year old range.

Surprisingly, it was found that a small fragment (21.4%) of the entrepreneurs were university graduates holding first degree and above while most of them (49.3%) either completed secondary school or did not attend secondary school at all. This may be due to poverty and other factors traceable to the family background of the entrepreneurs. Low educational level is a weakness which is expected to have negative impact on entrepreneur's knowledge and consequently, business performance (Bantel, 1993; Hitt and Tyler, 1991; Bantel and Jackson, 1989).

Most (90: 40.00%) of the firms were established between nine and five years to the time data were gathered for this study (2004 and 2008) and a good number of them (77: 34.50%) was established four years or less to the time of the study (2009 – 2013). Most (176: 74.30%) of the firms have 1-5 employees while 35 (15.60%) were sole proprietors without any employees. This result indicates that the firms were relatively young in age and very small in size.

Table 1 shows the level of knowledge possessed by the entrepreneurs. On a scale where 5 indicates strongly agree, 4 indicates agree and 3 indicates disagree, the mean rank for "I have rich knowledge about market is 3.56, the mean rank for "I know how to serve market is 3.80, while the mean rank for "I am familiar with customers' problems" is 3.70. The grand mean been 3.69 is lower than 4 which stands for agree and so indicates that the respondents did not agree that they have good knowledge of business. This was quite expected considering the educational background of most of the entrepreneurs. The finding is consistent with the submission of Bantel and Jackson (1989) earlier cited and the assertion of Bantel (1993) that education is an indication of an individual's knowledge, skills and influence, as well as a reflection of individual's information processing capacity. Low level of prior knowledge possessed by the entrepreneurs may adversely impact business performance. According to Grant (1996), knowledge is a strategically important resource that can form the basis for a new venture's competitive advantage. There is need to improve on this because knowledge has been found to have direct impact on firm's performance (Tang and Murphy, 2012). Also, previous studies have found associations between level of knowledge and intensity of innovation activities in entrepreneurial firms (e. g. Thornhill, 2006). According to the author, one of the findings of the research was that firm knowledge, industry dynamism and innovation interacted in the way they influence firm performance. Also, among some manufacturers, it was found that innovative new products had the greatest impact on revenue growth when knowledge assets were high and that results suggested that the quality of an innovation, as indicated by its effect on revenue growth, was a function of the level of knowledge assets within a firm (Thornhill, 2006).

TABLE 1
RESPONDENTS' PRIOR KNOWLEDGE RATINGS

Parameters	SA	A	D	SD	U	Mean Rating
I have rich knowledge about market	14 (6.2%)	114 (50.7%)	83 (36.9%)	12 (3.3%)	2(.9)	3.56
I know how to serve market	32 (14.2%)	93 (41.3%)	83 (36.9%)	15 (6.7%)	1(.4)	3.80
I am familiar with customers' problems	41 (18.2%)	96 (42.7%)	67 (29.0%)	21 (9.3%)	-	3.70

Legend: SA = Strongly Agree = 3; A = Agree = 4; D = Disagree = 3; SD= Strongly Disagree = 2; U = Undecided = 1

Chi-Square Analyses

Investigation of the associations between entrepreneur's age and each element on the prior knowledge scale produced the following results: That: (1) there is a significant association ($p < 0.05$) between age and entrepreneur's rich knowledge about market (Table 2). (2) there is a significant association ($p < 0.05$) between age and entrepreneur's knowledge on how to serve market (Table 3), and (3) there is a significant association ($p < 0.05$) between age and entrepreneur's familiarity with customers' problems (Table 4). This suggests that the young age of the respondents may be responsible for the level of knowledge they possess on the three items.

TABLE 2A
ENTREPRENEUR'S AGE * I HAVE RICH KNOWLEDGE ABOUT MARKET

Age	I have rich knowledge about market					TOTAL
	Undecided	Strongly Disagree	Disagree	Agree	Strongly Agree	
<25yrs	1 (0.4%)	6 (2.7%)	25 (11.1%)	12 (5.3%)	2 (0.9%)	46 (20.4%)
25-34yrs	0 (.0%)	3 (1.3%)	36 (16.0%)	58 (25.8%)	2 (0.9%)	99 (44.0%)
35-44yrs	0 (.0%)	3 (1.3%)	9 (4.0%)	20 (8.9%)	4 (1.8%)	36 (16.0%)
45-54yrs	1 (0.4%)	0 (.0%)	13 (5.8%)	19 (8.4%)	4 (1.8%)	37 (16.4%)
> 55yrs	0 (.0%)	0 (.0%)	0 (.0%)	5 (2.2%)	2 (0.9%)	7 (3.1%)
TOTAL	2 (9%)	12(5.3%)	83 (36.9%)	144(50.7%)	14 (6.3%)	255 (100%)

TABLE 2B
A TABLE SHOWING ASSOCIATION BETWEEN ENTREPRENEUR'S AGE AND KNOWLEDGE OF MARKET

R	df	P-value
39.156 ^a	16	0.0001

a. 15 cell (60.0%) have expected count less than 5. The minimum expected count is .06

TABLE 3A
AGE * I KNOW HOW TO SERVE MARKET

Age	I know how to serve market					TOTAL
	Undecided	Strongly Disagree	Disagree	Agree	Strongly Agree	
<25yrs	0 (.0%)	8 (3.6%)	27 (12.0%)	9 (4.0%)	2 (0.9%)	46 (20.4%)
25-34yrs	0 (.0%)	3 (1.3%)	43 (19.1%)	43 (19.1%)	10 (4.4%)	99 (44.0%)
35-44yrs	1 (0.4%)	3 (1.3%)	5 (2.2%)	17 (7.6%)	10 (4.4%)	36 (16.0%)
45-54yrs	0 (.0%)	1 (0.4%)	6 (2.7%)	22 (9.8%)	4 (1.8%)	37 (16.4%)
> 55yrs	0 (.0%)	0 (.0%)	2 (0.9%)	3 (1.3%)	2 (0.9%)	7 (3.1%)
TOTAL	1 (0.4%)	15(6.7%)	83 (36.9%)	94 (41.8%)	32 (14.2%)	255 (100%)

TABLE 3B**A TABLE SHOWING ASSOCIATION BETWEEN ENTREPRENEUR'S AGE AND KNOWLEDGE OF HOW TO SERVE MARKET**

R	Df	p-value
53.247 ^a	16	0.0001

TABLE 4A**AGE * I AM FAMILIAR WITH CUSTOMER'S PROBLEM**

Age	I know how to serve market					TOTAL
	Undecided	Strongly Disagree	Disagree	Agree	Strongly Agree	
<25yrs	0 (.0%)	8 (3.6%)	19 (8.4%)	12 (5.3%)	7 (3.1%)	46 (20.4%)
25-34yrs	0 (.0%)	12 (5.3%)	38 (16.9%)	38 (16.9%)	11 (4.9%)	99 (44.0%)
35-44yrs	0 (.0%)	1 (0.4%)	7 (3.1%)	20 (8.9%)	8 (3.6%)	36 (16.0%)
45-54yrs	0 (.0%)	0 (.0%)	2 (0.9%)	25 (11.1%)	10 (4.4%)	37 (16.4%)
> 55yrs	0 (.0%)	0 (.0%)	1 (0.4%)	1 (0.4%)	5 (2.2%)	7 (3.1%)
TOTAL	0 (.0%)	21 (9.3%)	67(29.8%)	96 (42.7%)	41 (18.2%)	255 (100%)

TABLE 4B**A TABLE SHOWING ASSOCIATION BETWEEN ENTREPRENEUR'S AGE AND FAMILIARITY WITH CUSTOMER'S PROBLEMS**

r ²	Df	p-value
50.769 ^a	12	0.0001

a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .65.

Investigation of the associations between entrepreneur's educational background and each element on the prior knowledge scale produced the following results: That: (1) there is no significant association between educational background and rich knowledge about market ($p > 0.05$) (Table 5). (2) There is a significant association ($p < 0.05$) between educational background and knowledge of how to serve market (Table 6); and (3) there is a significant association between educational background and familiarity with customers' problems (Table 7). The results show that the educational background of the entrepreneurs did not affect their rich knowledge about market; and that the higher the academic background of the entrepreneurs, the more knowledge of how to serve market and familiarity with customers' problems they possess. These results suggest that rich knowledge about market may require more specialized knowledge than the

general knowledge acquired in secondary and higher institutions of learning; or, perhaps require practical experience which may be acquired by long period of time spent in business operations. Profiles of the respondents had earlier indicated that a great number of them were relatively new in business. This may be responsible for the level of knowledge about market they possessed.

TABLE 5A
EDUCATIONAL BACKGROUND * I HAVE RICH KNOWLEDGE ABOUT MARKET

Educational Qualification	I have rich knowledge about market					TOTAL (%)
	Undecided (%)	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)	
<Secondary School	0 (0.0)	1(1.4)	5(2.2)	17(7.6)	2(0.9)	25 (11.1)
Secondary School Graduate	0 (0.0)	5(2.2)	41(18.2)	36(16.0)	4(1.8)	86(38.2)
Attended Higher Institution	0 (0.0)	0 (0.0)	11(4.9)	24(1.7)	0 (0.0)	35 (15.6)
OND/NCE graduate	1(1.4)	1(1.4)	12(5.3)	15(6.7)	2(0.9)	31(13.8)
B.sc./B.A/B.ed	1(1.4)	5(2.2)	13(5.8)	20 (8.9)	5(2.2)	44(19.6)
Post graduate qualification	0 (0.0)	0 (0.0)	1(1.4)	2(0.9)	1(1.4)	4(1.8)
TOTAL	2(0.9)	12 (5.3)	83(36.9)	114(50.7)	14(6.2)	255 (100)

TABLE 5B
A TABLE SHOWING ASSOCIATION BETWEEN ENTREPRENEUR'S EDUCATIONAL BACKGROUND AND RICH KNOWLEDGE ABOUT MARKET

r^2	df	p-value
27.463 ^a	20	0.123

a. 19 cells (63.3%) have expected count less than 5. The minimum expected count is .04.

TABLE 6A**EDUCATIONAL QUALIFICATION * I KNOW HOW TO SERVE MARKET**

Educational Qualification	I know how to serve market					TOTAL (%)
	Undecided (%)	Strongly Disagree%	Disagree (%)	Agree (%)	Strongly Agree (%)	
<Secondary School	0 (0.0)	1(1.4)	5(2.2)	13(5.8)	3 (1.3)	25 (11.1)
Secondary School Graduate	0 (0.0)	6(2.7)	40(17.8)	35(15.6)	5(2.2)	86(38.2)
Attended High Institution	0 (0.0)	1(1.4)	9(4.0)	21(9.3)	4(1.8)	35 (15.6)
OND/NCE graduate	0 (0.0)	4(1.8)	10 (4.4)	8(3.6)	9(4.0)	31(13.8)
B.sc./B.A/B.ed	1(1.4)	3 (1.3)	14(6.2)	15 (6.7)	11(4.9)	44(19.6)
Post graduate qualification	0 (0.0)	0 (0.0)	2(0.9)	2(0.9)	0 (0.0)	4(1.8)
TOTAL	1(1.4)	15 (6.7)	80 (34.3)	94(39.1)	32(13.7)	225 (100)

TABLE 6B**A TABLE SHOWING ASSOCIATION BETWEEN ENTREPRENEUR'S EDUCATIONAL BACKGROUND AND I KNOW HOW TO SERVE MARKET**

r^2	df	p-value
30.919 ^a	20	0.056

a. 17 cells (56.7%) have expected count less than 5. The minimum expected count is .02.

TABLE 7A
EDUCATIONAL BACKGROUND * I AM FAMILIAR WITH CUSTOMERS' PROBLEMS

Educational Qualification	I am familiar with customers problem					TOTAL (%)
	Undecided (%)	Disagree (%)	Undecided (%)	Agree (%)	Strongly Agree (%)	
<Secondary School	0 (0.0)	4(1.8)	6(2.7)	10 (4.4)	5(2.2)	25 (11.1)
Secondary School Graduate	0 (0.0)	11(4.9)	37(16.4)	33(14.7)	5(2.2)	86(38.2)
Attended High Institution	0 (0.0)	3 (1.3)	6(2.7)	22(9.8)	4(1.8)	35 (15.6)
OND/NCE graduate	0 (0.0)	0 (0.0)	9(4.0)	9(4.0)	13(5.8)	31(13.8)
B.sc./B.A/B.ed	0 (0.0)	3 (1.3)	7(3.1)	21 (9.3)	13(5.8)	44(19.6)
Post graduate qualification	0 (0.0)	0 (0.0)	2(0.9)	1(1.4)	1(1.4)	4(1.8)
TOTAL	0 (0.0)	21(9.3)	67 (29.8)	94(42.7)	41(18.6)	225 (100)

TABLE 7B
A TABLE SHOWING ASSOCIATION BETWEEN ENTREPRENEURS' EDUCATIONAL BACKGROUND AND FAMILIARITY WITH CUSTOMERS' PROBLEMS

r^2	df	p-value
43.123 ^a	15	0.000

a. 9 cells (37.5%) have expected count less than 5. The minimum expected count is .37.

CONCLUSIONS

This study has shown that the two socio-demographic factors examined have impact on the knowledge of the entrepreneurs. Entrepreneurs' age was found to have significant associations with all the components of prior knowledge that were examined. . Similarly, educational background was found to significantly impact two out of the three components of prior knowledge. This study has extended knowledge by providing insight into how entrepreneur's age and educational background may influence a micro-entrepreneur's prior knowledge. Considering the fact that prior knowledge is a strategically important resource that can form the basis for competitive advantage, knowing the factors that influence it is very essential. Overall, the results of this study suggest that a comprehensive set of prior knowledge is positively associated with the entrepreneur's age. This may be an indication of accumulated experience over the years. These results suggest that the more an entrepreneur advances in age, the more the experience he or she

acquires on the job. Therefore, entrepreneur's age is a factor that cannot be pushed aside when we are considering successful venture management.

Another insight that could be gleaned from this study is that education is a very important factor in the practice of entrepreneurship. This information will be useful to policy makers and other institutions and organizations that are interested in promoting entrepreneurship. Literature has established that both literates and illiterates start business ventures for various reasons but if those ventures will grow and will be able to contribute to national economic growth then, the owners should be given some relevant education.

In conclusion, this study suggests that while young entrepreneurs may perform well in business, older entrepreneurs (who are both old in age and business management) are expected to perform better due to their accumulated experience over the years; and that while illiterates may be able to operate business ventures successfully, educated entrepreneurs will perform better.

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