

Managerial Capability and The Innovative Prowess of Entrepreneurial Firms in Nigeria

Oyedokun Akintunde Jonathan, Adegbile Aderibigbe Seun , Ogunkunle Oluwatobi James

Abstract— The relationship between managerial capability and the innovative prowess of entrepreneurs in the Nigeria plastic industry was examined to determine the extent to which management tactics stimulate the creativity of innovation in the industry. Two dimensional construct with six variables were advance for the study to capture the relationship between the identified capability and the innovative prowess of entrepreneurs. Structural equation model was used to analyze the data collected this was based on equation ability to validate propounded theory and show the multiple relationship among construct following their reliability and validation. The confirmatory factor analysis model displayed good fit following their assessment using three indices – absolute, incremental, parsimony. The result confirmed the test that managerial tactics displayed by management actually encouraged the stimulation of innovation that drive the creativity in the plastic industry. Individual were not afraid to develop ideas and demonstrate such ideas since management promote and reward successful ideas that is sustainable. Managers were therefore recommended to identify and promote capabilities that can stimulate entrepreneurial innovation and healthy competition among employees in the industry.

Index Terms— managerial capability, innovative prowess, creativity, Structural equation model, management, ideas..

I. INTRODUCTION

Innovative capability is central to the survival and sustainability of firm's competitive position in modern day business environment. Today's firm and entrepreneurs must develop managerial capability that will stimulate and sustain the growth of innovation. Such innovation may span across innovative ideas, processes and technology capable of either minimizing cost or generating unique capability for a new market (Covlin and Slevin, 1991). To compete effectively, entrepreneurs must understand the powers behind acquiring innovative skills. The development of innovative culture motivated by management will not only spur employees towards using resources beyond their control (Kirzner, 1973; Stevenson and Jarillo, 1990) but will also encourage them to take reasonable risk to advance the course of the business. Supporting this view, Tampkin (2007) concurred that management capability makes a difference on individual performance through the development of innovative ideas.

First Author name, His Department Name, University/ College/ Organization Name, City Name, Country Name, Phone/ Mobile No., (e-mail: firsrtauthor@gamil.com).

Second Author name, His Department Name, University/ College/ Organization Name, City Name, Country Name, Phone/ Mobile No., (e-mail: secondauthor@rediffmail.com).

Third Author name, His Department Name, University/ College/ Organization Name, City Name, Country Name, Phone/ Mobile No., (e-mail: thirddauthor@hotmail.com).

Similar view by Richard (1998) opined that innovative business is one which lives and breathes 'outside the box'. it is not just good ideas but a combination of good ideas, motivated staff and instinctive understanding of what customers wants. Arising from this, the onus lies on entrepreneurs to create the enabling environment to nurture innovation and this can be achieve through the support of a committed management. This view was based on the assumption that effective managerial capability can stimulate firm's innovative prowess and widen the opportunity search circles for such firms to exploit. The aim of the study is examine the relationship between entrepreneur's managerial skills and their innovative prowess. This is based on the fact that entrepreneurs with managerial skills that promote innovation are most likely to sustain or surpass their competitive position.

II. LITERATURE REVIEW

A. Managerial Capabilities and Innovation

Managerial Capabilities are what an organization requires to fulfil its business objective, it represent the organizational processes by which resources are assimilated and productively deployed. These organizational processes are firm specific and are developed over substantial time periods through complex and innovative interactions among the firm's resources (Amit and Schoemaker, 1993). Grant (1996) perceives managerial capabilities as the firm's ability to perform repeatedly a productive task which relates either directly or indirectly to a firm's capacity for creating value through effecting the innovative ideas. Nelson and Winter (1982) noted that capabilities are high-level routines that provide an organization's management a set of decision options for producing an array of outputs. This implies that capabilities are firm's capacity to deploy resources, usually in combination and encapsulate both explicit processes and tacit elements (such as know-how and leadership) embedded in the processes. Firms' capabilities could enhance its innovativeness and stimulates opportunity recognition and exploitation abilities, which is central to entrepreneurship. Entrepreneurial behaviors within and among individuals in the firms could also be triggered or enhanced through managerial capabilities. (Danneels, 2002) argued that it is essential for RBV to have a dynamic perspective so as to understand how firms evolve over time through their deployment and acquisition of resources because firms must continuously renew and reconfigure themselves (Zahra et al., 2006) as new opportunity are identified and exploited. Furthermore, existing capabilities can stimulate innovation needed to develop new capabilities to sustain firm's competitive position. Therefore the managerial of capability

is critical in gaining innovative organization performance (Zahra et al., 2006).

Drawing from studies (Aldrich and Zimmer, 1986; Conviello and Munro, 1997; Johnson and Mattson, 1988; Loane and Bell, 2006; Meyer and skak, 2002; Mort and Weerawardena, 2006; Zahra et al., 2006 Zhang et al., 2009) on literature review we argue that domestic entrepreneurs also demonstrate managerial capabilities in their quest to seeking sustained competitive position for their businesses. The firm's exhibit entrepreneurial behavior of opportunity identification and exploitation using their innovative capabilities to access new market, develop new product, attract more customer, build new capabilities and reconfigure their processes. The study therefore seeks to examine the influence of managerial capabilities on the innovative prowess of entrepreneurial firms in Nigeria. This was based on the perception that innovation is central to entrepreneurship which is inevitable for the survival of firms in modern day dynamic and highly competitive market.

B. Phases of Capabilities

The evidence that competitive advantage depends on firm's superior deployment of capabilities has been affirmed by extant literature (Christensen and Overdorf 2000; Day 1994). Capabilities are often perceived as critical drivers of firm's performances (Eisenhardt and Martins 2000; Makadok 2001; Teece et al 1997). They are the internal resources and core competences that underline a firm's long term profitability (IFM, 2012).

Capabilities in literatures in the past two decades have been discussed in various dimensions (Zhang et al. 2009; Alegre and Chiva 2009; Wang, 2008; Dimitratos and Liouka; Winter 2002) such as managerial, adaptive, absorptive, innovative, marketing, networking, technical and financial capabilities. This suggests capabilities as a multidimensional concept and construct. Winter (2002) opined that capabilities could be ordinary "zero order" or dynamic. Winter viewed ordinary capabilities as those that permit a firm to make a living in the short term while dynamic capabilities are perceived as those that operate to modify, extend or create ordinary capabilities. Wang and Ahmed (2007) however observed that dynamic capabilities are embedded in firm's processes. Following the assertion that dynamic capabilities seeks to modify, extend or create ordinary capabilities and the argument that they are embedded in firm's processes. This point to the fact that both zero level and dynamic capabilities are embedded in the firm's processes since the mechanism that effect this changes are within the firm's processes they only differ in terms of the goals they are set to achieve they are thus referred to as firms specifics developed over time through complex interactions among firms resources (Amit and Schoemaker 1993).

C. Human Resources and Firm's Capabilities

The importance of well form managerial capabilities has been emphasized to sustain competitive position of firms (Sapienza et al. 2006; Autio et al, 2010). Managerial capabilities as viewed by Teece et al. (1977) are the key role of strategic management in appropriately adapting integrating and reconfiguring internal and external organizational skills, resources and functional competences to match the requirement of a changing environment. Similar view by

Amit and Schoemaker (1993) affirmed managerial capability as a firms capacity to deploy resources usually in a combination and encapsulate both explicit processes and those tacit element (know-how and Leadership) embedded in the processes. He added that they are firm specific develop over time through complex interactions among firms resources. The commonalities of these views suggest capabilities as strategic management function developed through the complex interactions among firms' resources -tangible and intangible- to address the changing environment and possibly exploit opportunities. The views further stressed the relevance of know-how and leadership which by implication gave an impression of the inevitability of key individual skills at developing a virile capability. Shaping, understanding and developing new capabilities needed by an organization should not be the exclusive duties of strategic managers rather individuals and groups within the organization must be challenged and motivated to participate. This was based on studies in extant literature (Seymour 2006; Williamson, 2002; Esty and Winston 2006) that affirmed individual not firm as opportunity identifier. These therefore deem it imperative for firms to engage the services of individual with potential entrepreneurial skills that can continually enhance its capabilities for future performance. Anderson and Muller (2003) posit that excellent human resources can provide increase opportunity recognition and entrepreneurial success of firm. Prior studies by Davidsson and Honig (2003) attested that positive relationship exists between human capital and entrepreneurial activities. Stander and Macintosh (2006) stressed the need for an organization to understand the capabilities needed to achieve its goals. They highlighted the need to understand individual skills within the organization needed for existing and future business and concluded by encouraging the identification allocation and matching of individual with appropriate skills to projects efficiently and effectively. This by implication means matching individual with the right skills to the job could trigger the development innovation. The study therefore hypothesis that managerial capabilities do not influence entrepreneurial firm's innovative prowess.

III. METHODOLOGY

The study was done in selected firms in the Nigeria Plastic Industry. The management of the firm however preferred the study to be anonymous about their firm's name; as such anonymous names such as Uku, Sketeroboske, Gbagbeosi and ofenaeyaani were used as proxy for the selected firms. The choice of the firms was because of the number of years they have been in active operations in the industry. This was based on the perception that they must have been entrepreneurial in their management approach to succeed in doing business over the years considering the competitive nature of the industry. Such managerial skills must have aid their innovative prowess to survive the turbulent environment in the industry. The selected firms have however spent a minimum of ten years in the industry.

The data for the sample was gathered with the aid of structured questionnaires. A set of multiple-item reflecting a 5 point Likert scales was used to measure each variable in each construct. A total of 280 questionnaires (Uku-70, Sketeroboske-70, Gbagbeosi-70 and Ofenaeyaani -70) were

administered across the four firms. Respondents for the study comprise management staff, heads of functional units and other employees. The questionnaires were administered across functional units. A simple random technique was used in each functional unit to make sure the employees have equal chances of being selected. A total of 240 questionnaires were retrieved from the field amounting to a 95% response rate. Following the data screening and evaluation, 220 (89%) cases finally constituted the data used for analysis.

A. Measures of Study Variable

Managerial capability and innovation was considered as a latent dimensional scale. Managerial capability is the ability of managers to create a strong workplace and culture which facilitates the employees to grow, engage and the same time achieve business goals. It includes leadership qualities, collaborative decision making, and the nurturing of creativity and innovation (Tampkin et al 2012). Innovativeness was measured as employee’s tendency to engage in support of new ideas, novelty, experimentation and creative processes that may result in new product processes or technology. This is consistent with the works of Wang (2008) and Miller (1983).

B. Model Specification

Following the construct specification the measurement theory model tested was developed as indicated in figure 1.

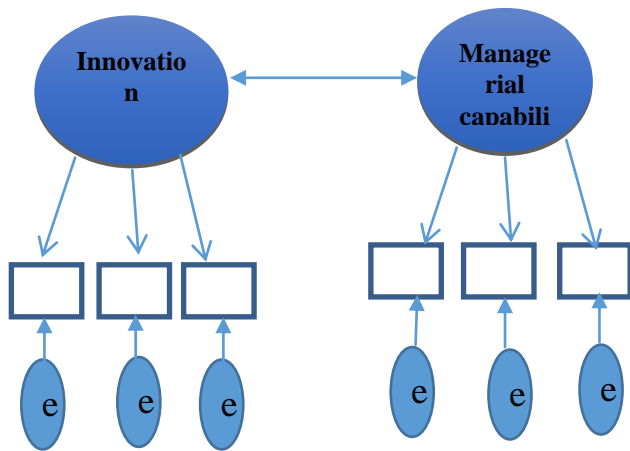


Figure 1

The model displayed two latent construct with 6 measured indicators. The construct were allowed to correlate with all other construct. The constructs were reflective in nature since they are based on the idea that the latent construct caused the measured variables and that error resulted to the inability to fully explain the measured variables (Hair et al.2010). The measured items were allowed to load on only one construct. This is consistent with rules of unidimensional measures that a set of measured variables (indicators) can only be explained by one underlying construct (Ping 2004). The error terms are not also allowed to relate with any other measured variables. The measurement model is congenic and all construct are indicated by three major measured items suggesting a just identified measurement model.

C. Reliability and Validity of Measures

A construct validity test (Unidimensional, Reliability and Validity) was done to determine the extent indicators actually measure the construct. Series of test to measure the properties of the indicators were tested using confirmatory factors analysis. Reliability was assessed using Croncbach alpha. The construct measures (managerial and innovation) met the recommended level of 0.70 and are therefore specified as sufficient in their representative of the construct.

Construct	Number of Indicators	Reliability
MC	3	0.77
IN	3	0.85

Notes:

MC = Managerial;

IN= Innovation.

IV. ANALYSIS AND DISCUSSION

Following the specification of the model, confirmatory factor analysis (CFA) was performed to compare the theory with the data in other to ascertain the fit. The fit of the model was assessed based on three estimated fit indices – Absolute fit, parsimony fit and incremental fit). The measurement model fit index accounted for chi-square (χ^2) of 214, df =150, p=0.000, $\frac{\chi^2}{df} = 1.783$, RMSEA= 0.06, GFI = 0.972. The result indicates an adequate fit accepted on the aforementioned criteria.

The fit of the structural model in figure 1 was also assessed using the absolute fit, parsimony fit and incremental fit indices. The fit resulted to a measures of chi-square (χ^2) of 246, df =136, p=0.000, $\frac{\chi^2}{df} = 1.773$, RMSEA= 0.07, GFI = 0.942. The chi square statistics is significant but other relevant indices indicate a good overall fit (Tippins and Sohi, 2003).

Table 1
Correlation Coefficient and Shared Variances

Measures	Mean	Standard deviation	1	2
1 Managerial	4.384	1.436	1.000	0.532
2 Innovativeness	4.923	1.158	0.135	1.000

Note (1) Correlation Coefficient are reported in the upper diagonal half of the matrix and are significant at p<0.001.(2) Shared variances are reported in the lower diagonal half of the matrix.

Base on the outcome of the result as shown in Table (1) the hypothesis specified for the study was tested.

Hypothesis	Parameter	Supported?
H ₁ = MC → INV	0.532	Yes

A look at the relationship between managerial capability of firms and the innovative behavior of employees pin pointed the fact that managerial capability has a positive relationship with the innovative behavior of employees in the industry.

This was noted in the 0.532 correlation in table 1. The result gives an indication that management generally create a work place environment that stimulates and nurture innovative behavior of employees. The perception is that employees are encouraged to behave original and in novel ways by trying new things but their attitude or behavior are technically screened through the collaborative decision making process put in place by the management. This also affirmed the fact that individual stimulate innovation in their firms as encouraged by management but measures are put in place to screen their innovativeness in other to ensure that they align with the organizational goals. The outcome of the result suggest that management created a work place culture that facilitates employees' growth and encourage the commitment of personal resources while innovating to seek opportunity viable for the firm. This allows employees to be original, challenging them to develop new ways of doing things.

V. CONCLUSION

Following the findings and discussion, the under listed conclusion were derived:

- i. Individual are at heart of innovation in the Nigeria plastic industry.
- ii. Managerial capability have influenced on the innovative prowess of entrepreneurs in the plastic industry.
- iii. Managerial capabilities through collaborative decision with employees' serve as a filtering process to reduce the risk level associated with innovation embarked by employees.

VI. RECOMMENDATION

Based on the findings and conclusion the following recommendations were made:

- i. Management should further put in place capabilities that will sustain the innovativeness of employees.
- ii. Managers should attempt to employ employees with innovative potentials from inception bearing in mind that an organisation blessed entrepreneurial employees that are innovative have greater potentials for opportunity identification and exploitations as opposed to others that lack such qualities.

REFERENCES

[1] Aldrich, H, and Zimmer, C. 1986. Entrepreneurship through social networks. In D.L. Sexton and R.W. Smilor (Eds), *The art and science entrepreneurship*: 3-23. Cambridge, MA: Ballinger.

[2] Alegre, J, Lapiedra, R, and Chiva, R. 2004. Linking operations strategy and products innovation: An empirical study of Spanish ceramic tile producers. *Research Policy*, 33(5), 829-839.

[4] Amit, R. And Shoemaker, P.J (1993) strategies assests and organisational rent. *Strategic Management Journal*, 14, 33-36

[5] Anderson, A.R., and Jack S.L. (2002), 'The articulation of social capital in entrepreneurial networks: a glue or a lubricant?' *Entrepreneurship or Regional Development*, vol. 14. No 13 pp 193-210

[6] Autio, E., Bruneel, J. and Clarysse, B. (2010). Constraint or catalyst? Organisation capabilities and entrepreneurial

internationalisation. IEG Working Papers. London: Imperial College Business School. Harvard University Press

[7] Casson (2005). *The Entrepreneur: An economic theory*, (2nd ed.) Cheltenham: Edward Elgar.

[8] Christensen CM, Overdorf M (2000) Fitting the tool to the task. *Harvard Business Review* 78:75 (cover story)

[9] Coviello N, Cox M (2006) The resource dynamics of international new venture networks. *Journal of International Entrepreneur* 4:113-132

[10] Coviello, N and Munro, H. 1997. Network relationships and the internationalisation process of small software firms. *International Business Review*, 6(4): 361-368.

[11] Covin,J.G and D.P Slevin (Fall 1991). 'A conceptual model of entrepreneurship as firm behavior', *Entrepreneurship Theory and Practice*, pp 7-25

[12] Covin J.G, Slevin D.P (1989) Strategic management of small firms in hostile and benign environments. *Strategic Management Journal* 10:75-87. doi:10.1002/smj.42509100107

[13] Daneels, E. (2002). 'The dynamics of product innovation and firm competences', *Strategic Management Journal*, 23, pp. 143-152

[14] Day GS (1994) The capabilities of market driven organizations. *J Mark* 58(4): 37-52. doi:10.2307/1251915

[15] Dimitratos P, Lioukas S, Carter S (2004). The relationship between entrepreneurship and international performance: the importance of domestic environment. *International Business Review* 13: 19-41

[16] Eisenhardt KM, Martin JA (2000) Dynamic capabilities: what are they? *Strategic Management Journal* 21:1105

[17] Johnson, J. and Mattsson, L.G. (1988):*Internalization in industrial systems: A network approach*. In N.Hood&J.E Vahlne (Eds),*strategies in global competition*: 287-317 London: Croom Helm

[18] Kirzner,I.M.(1973):*Competition and Entrepreneurship*.University of Chicago Press, IL.

[19] Loane,S. And Bell,J.(2006):Rapid internalization among entrepreneurial firms in Australia, *International Marketing Review*, 23(5):467-485

[20] Makadok,R,(2001). Toward a synthesis of the resources- based and dynamic – capability views of rent creation. *Strategic management Journal*,22,387-401

[21] Meyer,K and Skak,A.(2002):*Network Serendipity and SME entry in to Eastern Europe* *European management journal* 20(3):179-188.

[22] Miller,D. (1983): the correlates of entrepreneurship in three types of firms'. *Management sciences*.29 pp770-791

[23] Mort,G.S. and Weerawardena,J.(2006):networking capability and international entrepreneurship: networks function in Australian born global firms. *International Marketing Review*.23 (5), 549-572.

[24] Nelson R.R and Winter S.G. (1982): *An evolutionary theory off economic change*. Belknap press of Harvard University press: Cambridge, MA.

[25] Stader J. And Macintosh A. (2006) *Capability Modelling and Knowledge Management*. International Teledemocracy Centre, Napier University, Edinburgh, EH10 5DT, Scotland.

[26] Stevenson, H.Hand Jarillo.J.C(1990):'A Paradigm of Entrepreneurship: Entrepreneurship management'. *Strategic management journal special11*, pp.17-27

[27] Tamkin,P.(2007):*Management capability and firm performance*. IES Research Networks.<http://www.employment-studies.co.uk/pdflibrary/mp26.pdf>

[28] Teece, D., G. Pisano, and A. Shuen (1997). "Dynamic capabilities and Strategic Management." *Strategic Management Journal* 18: 509-533.

[29] Wang,C.L.(2008):*Entrepreneurship orientation, learning orientation and firm performances*. *Entrepreneurship Theory and practice*, 32(4)635-656

[30] Winter S.G. (2002). *Understanding Dynamic Capabilities WP 2002-05*. The Wharton School University of Pennsylvania.

[31] Zahra,S.A,Sapienza,H.J and Davidson,P.(2006):*Entrepreneurship and dynamic capabilities: A review model and research agenda*, *Journal of management studies*. 43(4), 917-955.

[32] Zhang,M., Tansuhaj,P., Mccullough, J.(2009):*International entrepreneur capability: the measurement and comparison between born global firms and traditional exporters in china*. *Journal of International Entrepreneurship*, springer science vol.,7292-322.