

Project Management Capabilities & Competences for Successful Entrepreneurship in Nigeria

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Abstract

This study investigates the relationships between project management competences and capabilities and successful entrepreneurship in Nigeria. We adopted descriptive survey design with a total of 53 respondents from a finite population of 19 successful entrepreneurs in Nigeria and collected qualitative data by using a modified form of the behavioural event research questionnaire. We conducted exploratory factor analyses to empirically determine the number of factors within each competence sub-construct, together with reliability and correlational analyses as well as hypothesis testing using a hierarchical ordinary least squares regression analysis. The results of hypothesis testing provided evidence that although the concept of entrepreneurial competences is widely used by government agencies and other business organizations in their drive for economic development and business success in Nigeria in practice, the core concept of competences, its measurement and relationship to performance and business success is in need of further rigorous research and development.

Key words: Project Management, entrepreneurship, competences and capabilities.

1.0 Introduction

Both entrepreneurship development and project management have been globally acknowledged as “instruments for achieving economic growth and development as well as employment creation” (Arowomole, 2000; Kolawole & Torimiro 2005; Rebecca & Benjamin, 2009).

However, one of the crucial issues that need to be addressed in the entrepreneurial business management domain is the alternative or synonymous use of entrepreneurship and project management. Past studies acknowledge that “authors have used both project management and entrepreneurship interchangeably and alternatively in the course of their research work whereas in actual sense they are not the same”. (Rebecca et al, 2009)

According to (Akande et al. 2008), “project management and entrepreneurship tend to achieve the same goal, however, both concepts differ considerably”. This may be confusing as findings in project management study might not be applicable to entrepreneurship. Therefore, distinguishing between project management and entrepreneurship is crucial

Various scholars from literature (Akande et al, 2008; Changanti et al, 1996; Cooper (2008); Covin et al, 2008; Honjo, 2004; Robb, 2002, Barkham, 1994; Begley et al, 1987; Kotey et al, 1997; Sadler-Smith et al., 2003; Batjargal, 2005) noted that “the difference between project management and entrepreneurship is debatable but have failed to establish the missing link

between the two”. These researchers have attempted to investigate the various entrepreneurial characteristics affecting project performance, including the entrepreneur's background and demographic characteristics such as education, age, gender and ethnicity psychological and behavioural characteristics and factors of social and human capital ignoring the relationship between project management and entrepreneurship.

Other researchers (Chandler et al, 1994; Chaston, 1997; Ensley et al, 2006; Lumpkin et al, 1996; Roper, 1998; Dyke et al, 1992; Haber et al, 2007; Lerner et al, 1997; Aldrich et al, 1986; Johannisson, 1993; Chea, P. 2009) however opine that “contingency factors of contextual, organizational and strategic natures are of particular importance in determining project performance” Therefore there is need to properly address these issues.

1.1. Purpose of the study

The purpose of this paper is to investigate the relationships that exist between project management competences and capabilities and successful entrepreneurship development in Nigeria and to test the hypotheses derived from the model of Man et al, (2002) that aim at establishing the missing link between project management and entrepreneurship development in Nigeria.

Our objective here is to situate the use of words (project management & entrepreneurship) in order to have the proper context and fully understand the missing link. So, if launching a business is a project, then where is project management in managing the launch?

1.2. Problem Statement

Investigating the important competences relevant to entrepreneurs is considered an effort to address issues on the unacceptably high failure rates of projects reported among ventures in Nigeria. This problem, unless addressed would continue to negatively affect the socio-economic aspect of this country and the well being of the business owners themselves. *We opine that Project Management is the missing link that could make the crucial difference between success, challenge, or even failure of entrepreneurship in Nigeria.*

Therefore, in order to address the issue of missing link from literature, this work relates entrepreneurial characteristics and project performance taking into account, first, a more fully developed theoretical framework; second, contingency relationships on different conditions and interactions; third, characteristics that deserve more attention even if they may be less easily operationalized; and fourth, the performance measures chosen, and the use of multiple performance indicators.

2.0. Review of related literature

The Studies of (Cooper, 1993; Daily et al, 2002; Goedhuys, 2000; McGregor et al, 2000; Miller, 2008; Reuber et al, 2004) on the relationship between these entrepreneurial characteristics and project performance produced mixed and inconsistent findings. Possible explanations for these inconclusive results include research inability to predict a firm's success using entrepreneurial characteristics which are limited by the instability of firm performance; the importance to an entrepreneur of non-economic goals, and the stochastic nature of the process. The lack of formal

structural frameworks and of a comprehensive theory of project development is also a problem. In essence, this calls for a refocus on the key roles of the entrepreneurs and opens up rooms for further deliberations on the requisite competences that can be ingrained to cushion the adverse economic impact of project management on entrepreneurship.

The contention of this study is similar to that of (Gibb, 2005; Cooper et al, 1992; Murphy et al, 1996) in which the focus now “should be on the key roles played by the entrepreneurs as well as the key competences required to successfully engage in these roles. Being engaged in various roles including entrepreneurial, managerial and functional roles demand entrepreneurs to take up tasks and activities that are far more complex than those of project managers employed in organizations. The complexity of tasks performed by entrepreneurs suggests that it is vital to investigate further the forms of competences that could increase their chances of success”.

2.1. Conceptual Framework

Central to the conceptual framework for this study are the relationships between these entrepreneurial competences and other constructs of competitiveness, including competitive scope, organizational capabilities and the performance of the firm, which together address different dimensions of competitiveness. These relationships are conceptualized as three principal "entrepreneurial tasks," including: - (1) Forming the competitive scope of the firm; (2) Creating the organizational capabilities; and (3) Setting goals and taking action.

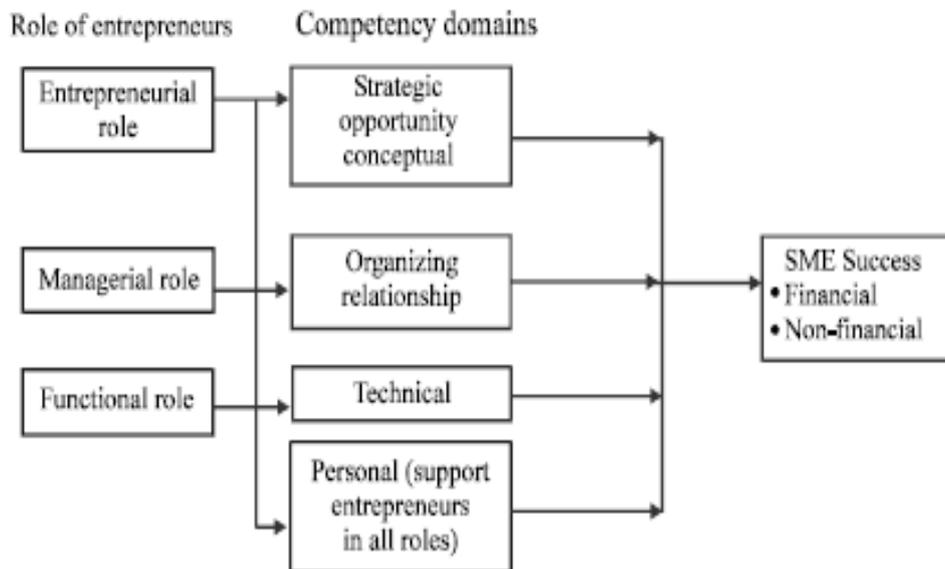
Various studies (Man, 2002; Aldrich et al, 1986; Baron et al, 2003; Baum, 2001; Bird, 1995; Boyatzis, 2002; Dyke et al, 1992) opine that “by making appropriate use of his or her competences, an entrepreneur can perceive a widened competitive scope such as more opportunities for innovation, business growth, and the provision of new services or products”.

Other researchers (Erikson, 2002; Gartner et al, 1993; Glancey, 1998; Grupta et al, 2008; Herron et al, 1993; Hunt, 2008; Ibrahim, 1991) differ in their findings as they postulate that “from available resources, an entrepreneur she can also develop better organizational capabilities such as the firm's innovative capability, cost-saving ability, quality and flexibility thereby being able to plan and work towards a firm's long-term performance, along with the available competitive scope and organizational capabilities”.

2.2. Theoretical Framework

Based upon the model of entrepreneurial competence proposed by Bird (1995) and by incorporating the content of entrepreneurial competences developed by the existing studies of (Keats et al, 1987; Chandler et al, 1994; Naman et al, 2003; Sadler-Smith, et al, 2003; Zahra, 2003; Spencer, et al, 2003; Snell et al, 2004; Martin et al, 2004; Kuratko et al, 2005; De Carolis et al, 2006; William, 2006; Okpara, et al, 2007), a *theoretical framework* that integrates the various roles of entrepreneurs with competences and business success is advanced in figure 1 for consideration.

Fig. 1: Theoretical Framework that integrates entrepreneurs’ roles with competences & business success.



Source: The researcher.

Studies have shown that “by taking a more contingent or configurational perspective towards a firm's performance between entrepreneurial competences, competitive scope, and organizational capabilities a three-way interaction between these three kinds of variables may be possible”. (Akande et al, 2008; Baron et al, 2003; Batjargal, 2005; Begley et al, 1987; Bird, 1995; Boyatzis, 2002; Chandler et al, 1994; Chaston, 1997; Cooper, 1993; Cooper et al, 1992; Ibrahim, 1991; Keats et al, 1987)

Since the competences of the entrepreneurs reflect the quality of action taken by them that would enhance their effectiveness in managing the firms, this study *strongly predicts that entrepreneurial competences have direct impact on business success.*

2.3. Hypotheses of the study

We postulated the following broad-based hypotheses to address the objectives of this study and to answer the research questions:-

Hypothesis 1: The opportunity, relationship, and conceptual competences of the entrepreneur are positively related to the competitive scope of a project manager

Hypothesis 2: The organizing, relationship and conceptual competences of the entrepreneur are positively related to the organizational capabilities of a project manager.

Hypothesis 3a: The strategic and commitment competences of the entrepreneur are positively related to the long-term performance of a project manager. *This relationship is positively moderated by the competitive scope of the firm.*

Hypothesis 3b: The strategic and commitment competences of the entrepreneur are positively related to the long-term performance of a venture. *This relationship is positively moderated by the organizational capabilities of the firm.*

Hypotheses 3a and 3b address the interactions of entrepreneurial competences separately with competitive scope and organizational capabilities.

Hypothesis 4: Strategic and commitment competences, competitive scope, and organizational capabilities will positively influence the performance of a project through their interactive effect.

3.0. Research Methodology

The underlying approach in developing a research design for this study is to modify and update the existing instruments with reference to the results from the qualitative analysis so as to make them applicable in measuring the entrepreneurial competences of the research context. A survey instrument taking a behavioural perspective and meeting the requirements of this study became necessary.

In line with the studies of (Spencer et al, 2003; McClelland, 2007), the qualitative data for this study was collected from a population of 19 successful businesses in Nigeria through copies of the research questionnaire, using a modified form of the behavioural event interview that was administered electronically. We drew the surveyed firms randomly from the latest available listings of entrepreneurs in directories during the time of the survey, provided that they met the following criteria: 1. The contact person listed in the directories is the owner/manager of the firm; 2. The firm has 50 or fewer employees which met the definition of entrepreneurship in Nigeria; 3. The firm has been in operation for at least three years. In particular, and in accordance with the suggestions of Bird (1995) who favoured the use of more rigorous and theory-based qualitative analysis instead of exploratory-qualitative approaches in studying entrepreneurial competences, the competitiveness framework was explicitly applied in matching the behaviours identified with the prescribed competence areas for different entrepreneurial tasks.

Although the response rate of the postal survey is not particularly high (approximately 7%), it is comparable to the reported response rates from 6.8% to 11.6% in a previous study of the response behaviour on postal surveys for Chinese owner/managers in Hong Kong (Siu, 1996). This led to our use of exploratory factor analysis of the 53 competence clusters and behavioural elements combined into higher-level competences in eight areas of *relationship, innovative, analytical, opportunity, strategic, human, operational and commitment* competences as in the original framework, as well as in two new competences that do not fit into these eight prescribed competence areas but seem to play supporting roles to other competences.

These competence constructs and their components were then used in the subsequent step of selecting and developing suitable measures. Those that were concise, with higher reliability and requiring fewer modifications, were preferred. Apart from these considerations, the measures were expected to be behavioural in nature and reflect the direction of the effects of the hypothesized relationships. Based on these criteria, the measures were selected and modified for: - (1) Opportunity competences, (2) Relationship competences, (3) Personal strength competences, (4) Conceptual competences, (5) The Learning Skills Profiles (6) Strategic competences, and (7) Leadership Competence Inventory (8) Organizing and commitment

competences. This resulted in a 68 item instrument measuring various entrepreneurial competences. These original measurements are all multi-item with a reported coefficient alpha ranging from 0.7 to 0.82, except for the learning competences, for which no concise measures matching the qualitative results are available. Thus, a simple item by item measure based on the qualitative results was developed (appendix 2).

To enhance the validity of the preliminary instrument for measuring entrepreneurial competences, we approached five academics experienced in the development of scales to evaluate its content validity. Based on their comments, some items were added, changed or removed, resulting in a modified version with 68 items. We then combined them with existing instruments for measuring the correlations of variables namely: - competitive scope, organizational capabilities, and firm performance (Table 2 - appendix 2).

To ensure consistency, the resulting preliminary version of the survey questionnaire was applied in a pilot test on a sample of 53 owner/managers and senior business executives in order to evaluate the performance of the items in the instrument.

In the data collected, we rephrased some items if their wording was not sufficiently strong to differentiate between good and poor ratings. Some were also selected for removal if they had:- (1) A low item-scale correlation, given an acceptable level of coefficient alpha (close to 0.7) that could be maintained, (2) Serious mis-loading or cross-loading into other variables, or (3) Low loading to the original variable.

We then produced a final version of the survey questionnaire with 53 items measuring the eight competence constructs, 12 items for competitive scope, 20 items for organizational capabilities, 14 items for firm performance, and other items for the respondents' personal and firm data. For purposes of hypothesis testing in this study, the measures for competitive scope and organisational capabilities were treated as composite scales. The items for measuring entrepreneurial competences are shown in appendix 1.

4.0. Analysis

In testing the hypotheses, we used a hierarchical ordinary least squares regression analysis (Table 4- appendix 2). The principal component factors of the areas of competence, generated from the previous factor analyses, were used as the independent variables instead of the original composite variables, to avoid the potential problems of multi-collinearity arising from the high level of correlations between these competence areas.

We used the composite measures of competitive scope and organizational capabilities respectively as the dependent variables in testing Hypotheses 1 and 2. In testing H3a, 3b and H4, firm performance was regressed by using the three performance criteria separately, namely, investment efficiency, business growth and relative performance.

As these principal components are standardized, problems of distortions with the interactive terms in Hypotheses 3a, 3b and 4 were minimized. Standardized scores for competitive scope, organizational capabilities, and performance variables were also used so that the variables would be more comparable in scale to assist in the calculations of interactive effects in Hypotheses 3a, 3b and 4.

In testing H4, the three-way interactive effects between competitive scope, organizational capabilities and entrepreneurial competences were tested by using two different types of interactive terms among these variables: (1) The full multiplicative terms among competitive scope, organizational capabilities and entrepreneurial competences, and (2) The additive-multiplicative terms between a combined measure of competitive scope and organizational capabilities with entrepreneurial competences.

The 3-way additive-interactive and the 3-way full-interactive terms were put under the same model in H4, as the correlation between them is insignificant. Again, as the commitment competences variable was shown to have a direct effect on firm performance in H3a and H3b, it was not entered as one of the interactive terms in H4. This is, in effect, a less stringent interpretation of interactions than the full multiplicative interactions.

Some control variables were also introduced. For Hypotheses 1 and 2, the entrepreneur's age (current age and start-up age) is controlled because an entrepreneur can become more competent or, on the contrary, less entrepreneurial as he or she gets older.

For Hypotheses 3 and 4, in addition to the entrepreneur's age, it is also necessary to consider the firm's age and size, industry sectors and stages of business development, all of which are related to a firm's performance.

5.0. Results

For these competence items, as there are only 53 cases in the sample, which is insufficiently large for conducting a single factor analysis, three separate exploratory factor analyses were conducted using varimax rotation with Kaiser normalization and principal component analysis. Together, the result was a clearer separation of factors and an ability to account for the maximum portion of the variance represented in the original set of variables. In all of the three factor analyses, factors were extracted when the eigen-values were greater than one. The factors extracted in all of the three analyses explained over 70% of the total variance, as shown in Appendix 2.

While there were some cross-loadings in other competence areas, in general the loading patterns corresponded with the predetermined sets of competence sub-constructs, except that the conceptual competences were found to be better separated under two competence areas namely: analytical competences and innovative competences. Organizing competences were better separated into two competence areas--operational and human competences--to better reflect the organizing competences in business operations and in people management.

In the end, a total of 10 factors were generated from the factor analysis for use in the subsequent analyses.

The reported Cronbach's Alpha for all multi-item variables used in the study ranged from 0.78 to 0.94, all of which are higher than the acceptable value of 0.7.

The correlations of the dependent and independent variables are shown on Table 2 (appendix 2). Table 2 (appendix 2) shows a significant and substantial level of correlations among variables of the same construct. For variables in different constructs, the correlations are moderate. Such a

pattern can be seen as evidence for the convergent validity for variables within a construct and the divergent validity for variables outside a construct. The significant correlations between the supporting competences of learning and personal strength with the main competence areas may provide some indications of the relationships between these sets of competence variables.

However, for the sub-constructs of entrepreneurial competences, the significant correlations may create potential problems of multicollinearity when used as dependent variables in hypothesis testing. To solve this problem, the standardized principal components of these competence sub-constructs were used in multiple regressions when the hypotheses were tested, instead of the original numeric values on the ratings. The results of the tests of the hypotheses are shown in Table 4 (appendix 2)

The results from the test of H1 show that there is an overall significant equation with the final [R.sup.2] of 0.210 on the final model (adjusted [R.sup.2] = 0.175). In particular, significant and positive effects were found for relationship, innovative, and opportunity competences on a competitive scope. Therefore, the extent of the competitive scope as perceived by the entrepreneur is positively related to how competent he or she is in building relationships, innovating and identifying opportunities in the external environment.

On the other hand, the insignificance of analytical competences may imply that as a kind of more abstract conceptual ability, they are not as readily applicable to the conceptualizing of the external environment. The small change in R² of 0.045 when introducing the control variables of current age and start-up stage of the entrepreneur into the equation indicates that the main effect from the independent variables contributed a considerable proportion of the R² in the equation.

The results from testing H2 have shown an overall significant model with the final R² = 0.230 (adjusted [R.sup.2] = 0.189). Significant and positive effects of relationship, innovative, and human competences were also found on the dependent variables of the organizational capabilities of the firm. Therefore, the creation of organizational capabilities is positively related to the entrepreneur's competences in manipulating various resources through their relationship, innovative and human (project management) competences.

However, no significant impact was found for operational competences and analytical competences, although positive signs were noted. The lack of significance for operational competences may be explained by the assumption that the formation of organizational capabilities relies more on the organization of people, as demonstrated in the significance of human competences, rather than on the organization of physical resources. This is where project management becomes relevant.

For analytical competences, its insignificant effects may also be related to the fact that it is a more abstract variable as in testing H1, and hence the respondents may find it more difficult to relate it to actual conditions.

Again, the small change in R² of 0.05 for introducing the control variables of current age and start-up stage of the entrepreneur into the equation indicates that the main effect from the independent variables played a significant role in contributing to the R² of the equation. Also

from Table 4, the results from testing H3a and 3b have indicated that there are overall significant models with respect to all three performance criteria.

The significant and positive two-way interactive effects of the competitive scope and the organizational capabilities on strategic competences were demonstrated when investment efficiency was used as the criterion of firm performance, as shown in the values of the standardised coefficients on these interactive terms. On the other hand, no such significant effects were found for competitive scope and organizational capabilities on commitment competences, which instead tend to have a direct effect on firm performance across various indicators.

Apart from their interactive effects, both competitive scope and organizational capabilities do not have a significant direct effect on firm performance, which may again evidence their role as moderators in the model. However, the two-way interactive effects for both competitive scope and organizational capabilities were not apparent when business growth and relative performance were used as the performance indicators. A possible explanation is that the performance consequences of the interactions of strategic competences with competitive scope and organizational capabilities are better reflected in realized and tangible gains, as in investment efficiency. As business growth and relative performance are less directly related, they are less tangible for ventures.

However, it is worth paying attention to the fact that the changes in R2 when introducing the independent variables and moderated terms into the regression equations were noticeable but not so substantial. This would mean that the control variables also made significant impacts on firm performance.

In testing H4, the results also demonstrated overall significant models with respect to all three performance criteria. As with H3a and 3b, commitment competences have a direct and positive relationship with firm performance. For strategic competences, a significant and positive additive-interactive effect with competitive scope and organizational capabilities on investment efficiency was noted; however, no significant three-way full interactive effect on firm performance was demonstrated. The direct effect of strategic competences was also shown, but under the criteria of investment efficiency only.

However, the impact of strategic competences on investment efficiency was not as strong as its interactive effect, as shown by the comparison between their standardized coefficients. As with H3, these interactive effects were significant only when investment efficiency was used as the performance indicator, but not when growth and relative performance were used. Also, the moderators of competitive scope and organizational capabilities did not have a significant direct effect on firm performance. Rather, they tend to play a positively moderating role in the relationship between strategic competences and firm performance. Again, there have been some noticeable changes in [R.sup.2] when introducing the independent variables and interactive terms into the regression equations.

From the results of testing various hypotheses, it was found that the current age of the entrepreneurs tends to have a negative impact on the hypothesized relationships, whereas their age when starting up their business has a positive impact on H1 only. These findings give

supporting evidence of the need to control for the effects of the age factor in the hypothesized relationships, as entrepreneurs tend to become less entrepreneurial with age (Reuber et al, 2004).

On the other hand, the results also show that firm size has a positive and strong impact on firm performance, and various stages of business development are found to have different levels of positive impact on the growth of the business, with a firm in the mature stage being the strongest, followed by the growth stage and the stage of decline.

Therefore, controlling for these firm factors would yield a more accurate account of the hypothesized relationships between entrepreneurial competences and other constructs. From the results of the changes in R2 in Table 4, the independent variables in H1 and H2 have considerably higher impacts than the control variables on the respective dependent variables (competitive scope and organisational capabilities), whereas in H3a, 3b and H4, the changes which resulted from the independent variables were also noticeable but less substantial.

Taking the above factors into consideration, it was shown that, in general, H1 and H2 are partially supported with empirical evidence, with opportunity, relationship, innovation and human competences having significant and considerable impacts on forming the competitive scope and creating the organizational capabilities of a firm respectively.

H3a and 3b are also partially supported, with evidence for the positive impacts of the higher levels of competitive scope and organizational capabilities on the entrepreneurs' strategic actions that would, in turn, affect the long-term performance of their firms. However, it is necessary to pay attention to factors other than those.

There is also evidence for at least partial support for additive-interactive effects among competitive scope, organizational capabilities and strategic competences on the performance of a firm. As in H4, the results can be interpreted as indicating that an entrepreneur's strategic competences can be more effective through the presence of a favourable competitive scope, as perceived by the entrepreneur, and an abundant supply of organizational capabilities; but that there is no need for a "full alignment" among strategic competences, competitive scope and organizational capabilities, which may be an overly stringent condition that few entrepreneurs can achieve given the limited capabilities they possess and the extent of the competitive scope they face.

Compared with the results from testing H3a and 3b using investment efficiency as the criterion, H4 has provided a higher level of adjusted R2, meaning that it can explain more variances in investment efficiency than H3a and 3b. It has also resulted in a higher standardized coefficient in the interactive term with competitive scope and organizational capabilities than in the separated two-way interactive effects of strategic competences with these two variables as in H3a and 3b. This again provides evidence for the need of the entrepreneur to consider the external environment and the firm's capabilities simultaneously in order to achieve better firm performance.

6.0. Discussion

As an effort to investigate the relationship between project management capabilities and competences (individual-level characteristics) and firm-level performance (entrepreneurship),

we have made use of a theoretical framework for competitiveness incorporating the competence approach for studying entrepreneurial competences. This framework has also allowed us to study interactive relationships, and provided guidelines for the choice and operationalization of the variables involved, as suggested by Cooper et al, (1992) and Murphy, et al, (1996), which are necessary for further investigations.

We were able to achieve an initial success, with some positive results from testing the hypotheses which provided supporting evidence of the direct or indirect effects of different competences on a firm's long-term performance. These findings correspond to earlier research efforts demonstrating an entrepreneur's ability to become alert to and interpret environmental conditions (Keats et al, 1987; Herron et al, 1993; Kristiansen, 2002; Minniti, 2004), to gather and use various internal and external resources to the advantage of the firm (De Carolis et al, 2006; Gartner et al, 1993; Ostgaard et al, 1994), and to plan for the long-term success of the firm (Harris et al, 1999; Ibrahim, 1991; Kargar, 1996; Kisfalyi, 2002; William, 2006).

6.1. Conclusion

The supportive evidence for the interactive effects rather than the direct effects of competitive scope and organizational capabilities on firm performance gave additional evidence for the theoretical framework. These results have also suggested that while differences in the perception of the environment or the firm's resources play a role in forming the competitive scope and creating organizational capabilities, they cannot be developed into competitive scope and organizational capabilities without the respective project management competences including relationship, innovative, opportunity and human competences. Also, the strategic competences of the entrepreneur to make use of the competitive scope and the organizational capabilities shall contribute to a firm's successful performance over the long term.

On the other hand, a supporting role for learning competences and personal strength competence was also observed, with empirical evidence from the qualitative analysis and the correlation analysis. However, contrary to our expectation, commitment competences seem to exert a direct effect on firm performance rather than a moderating/interactive effect, as originally hypothesized. This result indicates that the use of commitment competences is not limited by the external environment or by the firm's capabilities. More significantly, a unified survey instrument for measuring ten types of entrepreneurial competences from a behavioural perspective has been developed. It was developed from modifying and expanding existing instruments for measuring entrepreneurial competences, such as those of Chandler et al (1994) and Quinn et al. (1990), using the results from the qualitative analysis.

6.2. Recommendations

In fact, the results imply that training and developing competent entrepreneurs is as or more important than simply providing more resources and a positive environment. Moreover, distinguishing the roles of different competences on firm performance will allow a more focused approach to be taken in providing training to entrepreneurs.

To address the relationship between project management competences and entrepreneurial performance, further research can be conducted for testing the model of Man et al, (2002) by using samples across different industries and cultures. In addition, this will also help us better

understand how the requirements of different entrepreneurial competences vary across different industries and the influence of socio-cultural contexts on the formation of entrepreneurial competences. Also, as entrepreneurial competences are regarded as higher-level characteristics closely linked to venture performance, it will be of interest to investigate what entrepreneurial typologies will emerge if they are used as the basis of classification. Moreover, by classifying entrepreneurs into different categories, it is possible to offer them more focused project management training and assistance.

The complexity of tasks undertaken by entrepreneurs dictates that they need to prepare themselves with relevant competences that could be utilised in developing a successful organization. In other words, it is important for entrepreneurs to equip themselves with relevant competences that will eventually enhance their business opportunities. In translating these opportunities into positive outcome, entrepreneurs are required to carefully manage their internal and external resources.

Although some of the resources are readily available in the environment, it still depends on the ability of the entrepreneurs themselves to get access to those resources and mobilise them. Clearly, entrepreneurs engage in complex tasks in operating successful ventures. They also require project management capabilities and competences.

7.0. Implications of this study

As compared with previous studies on the relationship between entrepreneurial characteristics and business performance, this study has provided an alternative means of approaching this issue by making use of a theoretical framework that links other constructs (organizational capabilities and competitive scope) with firm performance.

This study also provides some empirical evidence for the role of the project manager in determining the performance of a business. Nevertheless, when evaluating the contributions of entrepreneurial competences in firm performance, it is important to pay attention to other factors such as firm size and stages of industry development. These influences may be particularly significant, given the small size of ventures in the sample used, and the economic downturn of Nigeria in the last few years which may have put these ventures in a relatively disadvantageous position. Hence factors other than individual competences, like the stages of industry development, may contribute even more towards firm performance in this context. We therefore recognize the need for further research work in this area.

Our study research instrument has been content-validated by an expert panel, construct-validated through exploratory factor analysis and correlational analysis, and criterion-validated by hypothesis testing. Moreover, the instrument has shown a high level of reliability in the variables it contains. Therefore, given further testing on larger samples, this survey instrument should have a high potential contribution in the future quantitative work on entrepreneurial competences. For example, apart from testing with firm performance, the instrument itself may serve to identify the relative strengths of different entrepreneurial competences in distinctive dimensions to help both practicing and potential entrepreneurs identify the competence areas in which they require further training and development.

This study offers theoretical and practical ramifications. Its theoretical contribution is grounded in conceptualising a model of entrepreneurs competences by taking into consideration the various roles played by them in handling their own business. This study also contributes to the advancement of entrepreneurship development through the identification of important competences. Practically, noting the radical changes in today's business environment, entrepreneurs are made aware of important competences that may have causal connection to their business success. We have provided business owners with knowledge about the way they do business and to some extent helping them to be more conscious of their business and surroundings. The findings derived from this research may also be useful to entrepreneurs insofar as alerting them to the kind of training that may be necessary to improve their business performance.

Finally, it is envisaged that this study may provide some useful guidelines for policy makers and educators as to ways in which educational programs might be improved upon to support the development and success of entrepreneurship in Nigeria. Similar studies could explore Nigerian Small and Medium Enterprises in-depth for additional comparisons.

APPENDIX 1

Items Measuring Entrepreneurial Competences:

1. Identify goods or services customers want.
2. Perceive unmet consumer needs.
3. Actively look for products or services that provide real benefit to customers.
4. Seize high-quality business opportunities.
5. Develop long-term trusting relationships with others.
6. Negotiate with others.
7. Interact with others.
8. Maintain a personal network of work contacts.
9. Understand what others mean by their words and actions.
10. Communicate with others effectively.
11. Apply ideas, issues, and observations to alternative contexts.
12. Integrate ideas, issues, and observations into more general contexts.
13. Take reasonable job-related risks.
14. Monitor progress toward objectives in risky actions.
15. Look at old problems in new ways.
16. Explore new ideas.
17. Treat new problems as opportunities.
18. Plan the operations of the business.
19. Plan the organisation of different resources.
20. Keep the organization run smoothly.
21. Organize resources.
22. Coordinate tasks.
23. Supervise subordinates.
24. Lead subordinates.
25. Organize people.
26. Motivate people.
27. Delegate effectively.
28. Determine long-term issues, problems, or opportunities.
29. Aware of the projected directions of the industry and how changes might impact the firm.
30. Prioritize work in alignment with business goals.
31. Redesign the department and/or organization to better meet long-term objectives and changes.
32. Align current actions with strategic goals.
33. Assess and link short-term, day-to-day tasks in the context of Long-term direction.
34. Monitor progress toward strategic goals.
35. Evaluate results against strategic goals.
36. Determine strategic actions by weighing costs and benefits.
37. Dedicate to make the venture work whenever possible.
38. Refuse to let the venture fail whenever appropriate.
39. Possess an extremely strong internal drive.
40. Commit to long-term business goals.
41. Learn from a variety of means.
42. Learn proactively.
43. Learn as much as I can in my field.

44. Keep up to date in my field.
45. Apply learned skills and knowledge into actual practices.
46. Maintain a high energy level.
47. Motivate self to function at optimum level of performance.
48. Respond to constructive criticism.
49. Maintain a positive attitude.
50. Prioritize tasks to manage my time.
51. Identify my own strengths and weaknesses and match them with opportunities and threats.
52. Manage my own career development.
53. Recognize and work on my own shortcomings.

APPENDIX 2

**Rotated Component Matrix for Items of Entrepreneurial
 Competences: Exploratory Factor Analysis 1--Items 1 to 17**

Factor:	1. Relationship	2. Innovative
1		
2		
3		.507
4	.521	
5	.731 *	
6	.799 *	
7	.796 *	
8	.757 *	
9	.331 *	
10	.507 *	
11		
12		
13		.575
14		.548
15		.784 *
16		.785 *
17		.797 *
Eigenvalue	8.292	1.621
% of Variance	48.774	9.537
Factor:	3. Analytical	4. Opportunity
1		.738 *
2		.801 *
3		.528 *
4		.415 *
5		
6		
7		
8		
9	.717	
10	.658	
11	.596 *	
12	.594 *	
13	.588 *	
14	.617 *	
15		
16		
17		
Eigenvalue	1.152	1.008
% of Variance	6.774	5.932

Exploratory Factor Analysis 2 (Items 18 to 40)

Factor:	1. Strategic	2. Human
18	.510	
19		
20		
21		
22		
23		.777 *
24		.800 *
25		.804 *
26		.738 *
27		.670 *
28	.638 *	
29	.640 *	
30	.656 *	
31	.691 *	
32	.752 *	
33	.735 *	
34	.748 *	
35	.715 *	
36	.648 *	
37		
38		
39		
40		
Eigenvalue	12.583	1.704
% of variance	54.709	7.410

Factor:	3. Operational	4. Commitment
18	.533 *	
19	.731 *	
20	.777 *	
21	.796 *	
22	.681 *	
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		

33		
34		
35		
36		
37		.709 *
38		.731 *
39		.711 *
40		.694 *
Eigenvalue	1.632	1.024
% of variance	7.096	4.452

Exploratory Factor Analysis 3 (Items 41 to 53)

Factor:	1. Personal Strength	2. Learning
41		.808 *
42		.901 *
43		.886 *
44		.883 *
45		.697 *
46	.470 *	.554 *
47	.680 *	
48	.791 *	
49	.816 *	
50	.716 *	
51	.797 *	
52	.831 *	
53	.734 *	
Eigenvalue	7.433	1.721
% of variance	57.179	13.239

Remarks :

(1.) Only the factor loadings equal to or greater than 0.5 are shown.

(2.) * Bold type indicates items for the competence area prior to the factor analyses.

Table 2: Correlations of Variables

	Mean	S.D.	1	
1. Competitive Scope	4.54	1.26		
2. Organizational Capability	4.55	.82	.42 **	
3. Opportunity Competences	5.09	.81	.27 **	
4. Relationship Competences	5.50	.76	.22 **	
5. Analytical Competences	5.01	.90	.30 **	
6. Innovative Competences	4.95	.98	.38 **	
7. Operational Competences	4.87	.89	.33 **	
8. Human Competences	4.73	1.09	.29 **	
9. Strategic Competences	4.70	.92	.43 **	
10. Commitment Competences	5.31	.89	.28 **	
11. Learning Competences	5.24	1.05	.36 **	
12. Personal Strength Competences	5.25	.88	.22 **	
13. Investment Efficiency	11.08	4.15	.19 *	
14. Business Growth	2.55	1.14	.26 **	
15. Relative Performance	2.82	.85	.20 *	
	2	3	4	
1. Competitive Scope				
2. Organizational Capability				
3. Opportunity Competences	.39 **			
4. Relationship Competences	.33 **	.66 **		
5. Analytical Competences	.35 **	.59 **	.65 **	
6. Innovative Competences	.43 **	.57 **	.49 **	
7. Operational Competences	.32 **	.58 **	.50 **	
8. Human Competences	.35 **	.61 **	.48 **	
9. Strategic Competences	.32 **	.59 **	.44 **	
10. Commitment Competences	.32 **	.63 **	.62 **	
11. Learning Competences	.37 **	.47 **	.43 **	
12. Personal Strength Competences	.32 **	.58 **	.57 **	
13. Investment Efficiency	.23 **	.30 **	.28 **	
14. Business Growth	.16	.28 **	.23 **	
15. Relative Performance	.22 **	.22 **	.08	
	5	6	7	
1. Competitive Scope				
2. Organizational Capability				
3. Opportunity Competences				
4. Relationship Competences				
5. Analytical Competences				
6. Innovative Competences	.63 **			
7. Operational Competences	.55 **	.50 **		
8. Human Competences	.50 **	.50 **	.69 **	
9. Strategic Competences	.58 **	.61 **	.68 **	
10. Commitment Competences	.59 **	.55 **	.63 **	
11. Learning Competences	.52 **	.56 **	.45 **	

12. Personal Strength Competences	.58 **	.53 **	.56 **
13. Investment Efficiency	.30 **	.23 **	.33 **
14. Business Growth	.28 **	.23 **	.30 **
15. Relative Performance	.19 *	.18 *	.27 **

8 9 10

1. Competitive Scope			
2. Organizational Capability			
3. Opportunity Competences			
4. Relationship Competences			
5. Analytical Competences			
6. Innovative Competences			
7. Operational Competences			
8. Human Competences			
9. Strategic Competences	.73 **		
10. Commitment Competences	.56 **	.69 **	
11. Learning Competences	.40 **	.57 **	.60 **
12. Personal Strength Competences	.52 **	.60 **	.74 **
13. Investment Efficiency	.26 **	.26 **	.26 **
14. Business Growth	.37 **	.35 **	.30 **
15. Relative Performance	.20 *	.23 **	.22 **

11 12

1. Competitive Scope			
2. Organizational Capability			
3. Opportunity Competences			
4. Relationship Competences			
5. Analytical Competences			
6. Innovative Competences			
7. Operational Competences			
8. Human Competences			
9. Strategic Competences			
10. Commitment Competences			
11. Learning Competences			
12. Personal Strength Competences	.65 **		
13. Investment Efficiency	.17 *	.14	
14. Business Growth	.20 *	.18 *	
15. Relative Performance	.05	.09	

13 14

1. Competitive Scope			
2. Organizational Capability			
3. Opportunity Competences			
4. Relationship Competences			
5. Analytical Competences			
6. Innovative Competences			
7. Operational Competences			
8. Human Competences			
9. Strategic Competences			

10. Commitment Competences		
11. Learning Competences		
12. Personal Strength Competences		
13. Investment Efficiency		
14. Business Growth	.44 **	
15. Relative Performance	.48 **	.48 **

** Significant at .01 level, * Significant at .05 level.

Table 3: Comparison of Key Characteristics between Sample and Population

	Sample	Population *
Age of owner/manager	89.5% between 28-56 and 3.3% below 28	89% between 30-59 and 4% under 29
Gender of owner/manager (female to male ratio)	20:80	15:85
Firm Size (number of employees)	Mean: 11.5/Medium: 7 (under 50)	Half of SMEs (less than 10)

*** Data obtained from the General Household Survey (2009) and Annual Digest of Federal office of Statistics (2012).**

Table 4: Results of Hierarchical Regressions

	H1	H2
Dependent variables	Comp. Scope	Organizational Capabilities.
Independent variables		
Opportunity	.136 +	
Relationship	.147 +	.208 **
Analytical	.063	.030
Innovative	.321 **	.298 **
Operational		.032
Human		.216 **
Strategic		
Commitment		
[DELTA] [R.sup.2]		
Moderators		
Comp. Scope		
Organ. Capab.		
[DELTA] [R.sup.2]		
Interactions		
2-way interactions:		
Strategic x		
Comp. Scope		
Commitment x		
Comp. Scope		
Strategic x		
Organ. Capab.		
Commitment x		
Organ. Capab.		
[DELTA] [R.sup.2]		
3-way interactions:		
Strategic x		
(Comp. Scope +		
Organ. Capab.)		
[DELTA] [R.sup.2]		
Strategic x		
Comp. Scope x		
Organ. Capab.		
[DELTA] [R.sup.2]		
Control variables		
Current age	-.221 *	-.047
Start-up age	.206 *	-.039
Firm size		

Firm age		
Industry		
Dev. stage (growth)		
Dev. stage (maturity)		
Dev. stage (decline)		
[DELTA] [R.sup.2]	.045	.005
[R.sup.2]	.210	.230
Adjusted [R.sup.2]	.175	.189
F	6.009 **	5.514 **

H3a

Dependent variables	Invest. Efficient.	Bus. Growth	Relative Perform.
----------------------------	-----------------------	----------------	----------------------

Independent variables

Opportunity			
Relationship			
Analytical			
Innovative			
Operational			
Human			
Strategic	.151	.076	.087
Commitment	.171 *	.182 *	.166 +
[DELTA] [R.sup.2]	.048	.037	.022
Moderators			
Comp. Scope	.114	.040	.049
Organ. Capab.			
[DELTA] [R.sup.2]	.004	.001	-.005

Interactions

2-way interactions:			
Strategic x Comp. Scope	.224 *	.003	.070
Commitment x Comp. Scope	-.026	-.021	-.058
Strategic x Organ. Capab.			
Commitment x Organ. Capab.			
[DELTA] [R.sup.2]	.038	0	-.005

3-way interactions:

Strategic x
 (Comp. Scope +
 Organ. Capab.)
 [DELTA] [R.sup.2]
 Strategic x
 Comp. Scope x
 Organ. Capab.
 [DELTA] [R.sup.2]

Control variables

Current age	-.211	-.140	-.283 +
Start-up age	.127	.181	.124
Firm size	.161 +	.217 *	.123
Firm age	.113	-.008	.070
Industry	.057	.050	.106
Dev. stage (growth)	.442 **	.164	.227
Dev. stage (maturity)	.519 *	.079	.162
Dev. stage (decline)	.357 +	-.076	-.068
[DELTA] [R.sup.2]			
[R.sup.2]	.232	.270	.277
Adjusted [R.sup.2]	.139	.140	.135
F	2.502 **	2.069 *	1.949 *

H3b

Dependent variables

Invest. Efficient. Bus. Growth Relative Perform.

Independent variables

Opportunity			
Relationship			
Analytical			
Innovative			
Operational			
Human			
Strategic	.126	.072	.076
Commitment	.139	.147	.162 +
[DELTA] [R.sup.2]	.046	.031	.029

Moderators

Comp. Scope			
Organ. Capab.	.135	.065	.115
[DELTA] [R.sup.2]	.010	.003	.004

Interactions

2-way interactions:

Strategic x Comp. Scope			
Commitment x Comp. Scope			
Strategic x Organ. Capab.	.174 +	.099	-.032
Commitment x Organ. Capab.	-.029	-.063	-.003
[DELTA] [R.sup.2]	.023	.009	.015

3-way interactions:

Strategic x
 (Comp. Scope +
 Organ. Capab.)
 [DELTA] [R.sup.2]
 Strategic x
 Comp. Scope x
 Organ. Capab.
 [DELTA] [R.sup.2]

Control variables

Current age	-.202	-.165	-.250
Start-up age	.142	.189	.145
Firm size	.136	.185 +	.112
Firm age	.106	-.027	.090
Industry	.051	.007	.094
Dev. stage (growth)	.408 *	.159	.209
Dev. stage (maturity)	.464 *	.123	.156
Dev. stage (decline)	.320	-.047	-.041
[DELTA] [R.sup.2]			
[R.sup.2]	.222	.276	.277
Adjusted [R.sup.2]	.129	.146	.135
F	2.371 **	2.129 **	1.954 *

H4

Dependent variables	Invest. Efficient.	Bus. Growth	Relative Perform.
---------------------	--------------------	-------------	-------------------

Independent variables

Opportunity
 Relationship

Analytical			
Innovative			
Operational			
Human			
Strategic	.202 *	.093	.054
Commitment	.138	.156	.159 +
[DELTA] [R.sup.2]	.049	.033	.034
Moderators			
Comp. Scope	.060	.047	-.008
Organ. Capab.	.139	.056	.105
[DELTA] [R.sup.2]	.012	.003	.009
Interactions			
2-way interactions:			
Strategic x			
Comp. Scope			
Commitment x			
Comp. Scope			
Strategic x			
Organ. Capab.			
Commitment x			
Organ. Capab.			
[DELTA] [R.sup.2]			
3-way interactions:			
Strategic x			
(Comp. Scope +	.237 *	.067	.027
Organ. Capab.)			
[DELTA] [R.sup.2]	.039	.003	.000
Strategic x			
Comp. Scope x	-.104	-.046	-.040
Organ. Capab.			
[DELTA] [R.sup.2]	.007	.001	.001
Control variables			
Current age	-210	-.147	-.288 +
Start-up age	.111	.167	.167
Firm size	.135	.188 +	.112
Firm age	.075	-.043	.079
Industry	.058	.015	.096
Dev. stage	.443 **	.170	.218
(growth)			
Dev. stage	.505 *	.143	.178
(maturity)			
Dev. stage	.388 +	-.013	-.040
(decline)			
[DELTA] [R.sup.2]			
[R.sup.2]	.248	.265	.279

Adjusted [R.sup.2]	.148	.123	.127
F	2.485 **	1.861 *	1.830 *

** Significant at .01 level, * Significant at .05 level,
+ Significant at .10 level

References

- Akande, O. O., & Ojukuku, R. M. (2008).** The impact of entrepreneurial skills on small business performance in Lagos - south-western Nigeria. *World Conference*. Halifax, Nova Scotia: International Council for Small Business.
- Aldrich, H. and C. Zimmer (1986).** "Entrepreneurship through Social Networks." Pp. 2-23 in D.L. Sexton and R.W. Smilor (eds.), *the Art and Science of Entrepreneurship*. Cambridge, MA: Ballinger Publishing Co.
- Arowomole, K. A. (2000).** *Modern business management (Theory and Practice)*. 1st edition. Sango-Ota, Ogun State: Ade-Oluayinka Commercial Press.
- Barkham, R.J. (1994).** "Entrepreneurial Characteristics and the Size of the New Firm: A Model and an Econometric Test," *Small Business Economics* 6, no. 2: 117-25.
- Baron, R.A. and G.D. Markman (2003).** "Beyond Social Capital: The Role of Entrepreneurs' Social Competence in Their Financial Success," *Journal of Business Venturing* 18, No. 1: 41-60.
- Batjargal, B. (2005).** "Entrepreneurial Versatility, Resources and Firm Performance in Russia: A Panel Study," *International Journal of Entrepreneurial and Innovation Management* 6, nos. 3/4: 284-97.
- Baum, J.R. (2001).** "The Relationship of Traits, Competences, Motivation, Strategy and Structure to Venture Growth" (PhD dissertation, University of Maryland).
- Begley, T.M. and D.P. Boyd (1987).** "Psychological Characteristics Associated with Performance in Entrepreneurial Firms and Smaller Businesses," *Journal of business Venturing* 2, no. 1: 79-93.
- Bird, B. (1995).** "Towards a Theory of Entrepreneurial Competence," *Advances in Entrepreneurship, Firm Emergence and Growth* 2: 51-72.
- Boyatzis, R.E. (2002).** *The Competent Manager: A Model for Effective Performance*. New York: Wiley.
- Chandler, G.N. and S.H. Hanks. (1994).** "Measuring the Performance of Emerging Business: A Validation Study," *Journal of Business Venturing* 8, no. 5: 391-408.
- Changanti, R. and S. Parasuraman. (1996).** "A Study of the Impacts of Gender on Business Performance and Management Patterns in Small Businesses," *Entrepreneurship Theory and Practice* 21, no. 2: 73-75.
- Chaston, I. (1997).** "Small Firm Performance: Assessing the Interaction between Entrepreneurial Style and Organizational Structure," *European Journal of Marketing* 31, nos. 11/12: 814-31.
- Chea, P. (2009).** Relationship between Entrepreneurs' Value, Firm Financing, Market Practices and Growth Performance of Small-Medium Enterprises in Cambodia. PhD thesis, Universiti Utara Malaysia, Sintok, Kedah, Malaysia.
- Cooper, A.C. (1993).** "Challenges in Predicting New Firm Performance," *Journal of Business Venturing* 8, no. 3: 241-53.

Cooper, A.C., W.C. Dunkelberg and C.Y. Woo. (2008). "Survival and Failure: A Longitudinal Study," *Frontiers of Entrepreneurship Research* 1988: 225-37.

Cooper, A.C. and F.J.G. Gascon (1992). "Entrepreneurs, Processes of Founding, and New-Firm Performance." Pp. 301-40 in D.L. Sexton and J.D. Kasarda (eds.), *The State of the Art of Entrepreneurship*. Boston: PLOSKENT Publishing Company.

Covin, J.G. and D.P. Slevin (2008). "The Influence of Organization Structure on the Utility Of an Entrepreneurial Top Management Style," *Journal of Management Studies* 25, no. 3: 217-34.

Daily, C.M., P.M. Patricia, J.G. Covin and D.R. Dalton (2002). "Governance and Strategic Leadership in Entrepreneurial Firms," *Journal of Management* 28, no. 3: 387-412.

De Carolis, D.M. and P. Sapartio (2006). "Social Capital, Cognition, and Entrepreneurial Opportunities: A Theoretical Framework," *Entrepreneurship Theory and Practice* 30, no. 1: 41-56.

Dyke, L.S., E.M. Fischer and A.R. Reuber (1992). "An Inter-Industry Examination of the Impact of Owner Experience on Firm Performance," *Journal of Small Business Management* 30, no. 4: 72-87.

Ensley, M.D., C.L. Pearce and K.M. Hmieleski (2006). "The Moderating Effect of Environmental Dynamism on the Relationship between Entrepreneur Leadership Behavior and New Venture Performance," *Journal of Business Venturing* 21, no. 2: 243-63.

Erikson, T (2002). "Entrepreneurial Capital: The Emerging Venture's Most Important Asset and Competitive Advantage," *Journal of Business Venturing* 17, no. 3: 275-90.

Gartner, W.B. and J.A. Starr (1993). "The Nature of Entrepreneurial Work." Pp. 35-67 in S. Birley and I.C. MacMillan (eds.), *Entrepreneurship Research: Global Perspective*. Amsterdam: North-Holland.

Gibb, A.A (2005). The entrepreneur as the core competence of the firm: Implication for Management educators. *Entrepreneurship, Innovation and Small Business Network, International Small Business Journal* no. 2: 15-31.

Glancey, K (1998). "Determinants of Growth and Profitability in Small Entrepreneurial Firm," *International Journal of Entrepreneurial Behaviour and Research* 4, no. 1: 18-27.

Goedhuys, M. and L. Sleuwaegen (2000). "Entrepreneurship and Growth of Entrepreneurial Firm in Cote d'Ivoire," *Journal of Development Studies* 36, no. 3: 123-44.

Grupta, A.K. and V. Govindarajan (2008). "Business Unit Strategy, Managerial Characteristics, and Business Unit Effectiveness at Strategy Implementation," *Academy of Management Journal* 27, no. 1: 25-41.

Haber, S. and Reicheil, A (2007). "The Cumulative Nature of the Entrepreneurial Process: The contribution of Human Capital, Planning and Environment Resources to Small Venture Performance," *Journal of Business Venturing* 22, no. 1: 119-45.

Harris, L.C. and E. Ogbonna (1999). "The Strategic Legacy of Company Founders," *Long Range Planning* 32, no. 3: 333-43.

Herron, L. and R.B. Robinson (1993). "A Structural Model of the Effects of Entrepreneurial Characteristics on Venture Performance," *Journal of Business Venturing* 8, no. 3: 281-94.

Honjo, Y (2004). "Growth of New Start-up Firms: Evidence from the Japanese Manufacturing Industry," *Applied Economics* 36, no. 4: 343-55.

Hunt, J.M (2008). "Toward the Development of a Competence Model of Family Firm Leadership." Paper presented at the 12th Annual National Conference, United States Association for Small Business and Entrepreneurship, Clearwater, FL (January 15-18).

Ibrahim, A.B (1991). "Strategy Types and Small Firms' Performance: An Empirical Investigation," *Journal of Small Business Strategy* 4, no. 1: 13-22.

Johannisson, B (1993). "To Grow or Not to Grow--On the External Growth of Small Firms." Pp. 266-86 in L.G. Davies and A.A. Gibb (eds.), *Recent Research in Entrepreneurship*. Avebury, Aldershot: The Third International EIASM Workshop.

Kargar, J. (1996). "Strategic Planning System Characteristics and Planning Effectiveness in Small Mature Firms," *The Mid-Atlantic Journal of Business* 32, no. 1: 19-34.

Keats, B.W. and J.S. Bracker. (1987). "Towards a Theory of Small Firm Performance: A Conceptual Model," *American Journal of Small Business* 12, no. 4: 41-58.

Kisfalvi, V. (2002). "The Entrepreneur's Character, Life Issues, and Strategy Making: A Field Study," *Journal of Business Venturing* 17, no. 5: 489-518.

Kolawole, O. D., & Torimiro, D. O. (2005). Participatory rural entrepreneurship development for grassroots transformation: A Factor Analysis. *Journal of Humanities and Ecology*, 18(3), pp.193- 198.

Kotey, B. and G.G. Meredith (1997). "Relationships Among Owner/Manager Personal Values, Business Strategies, and Enterprise Performance," *Journal of Small Business Management* 35, no. 2: 37-64.

Kristainsen, S. (2002). "Individual Perception of Business Contexts: The Case of Small-Scale Entrepreneurs in Tanzania," *Journal of Development Entrepreneurship* 7, no. 3: 283-304.

Kuratko, D. K., & Richard, M. H. (2005). *Entrepreneurship: Theory, Process & Practice*. 6th Edition. New York. Thomson South-Western.

Lau, T., K.F. Chan and T.W.Y. Man. (2009). "Entrepreneurial and Managerial Competences: Small Business Owner-Managers in Hong Kong." In P. Fosh, W. Chan, E. Snape and R. Westwood (eds.), *Hong Kong Management and Labour: Change and Continuity*. London: Routledge.

Lerner, M., C. Brush and R. Hisrich. (1997). "Israeli Women Entrepreneurs: An Examination of Factors Affecting Performance," *Journal of Business Venturing* 12, no. 4: 315-39.

Lumpkin, G.T. and G.G. Dess. (1996). "Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance," *Academy of Management Review* 21, no. 1: 135-72.

Man, T.W.Y., T. Lau and K.F. Chan. (2002). "The Competitiveness of Small and Medium Enterprises: A Conceptualization with Focus on Entrepreneurial Competences," *Journal of Business Venturing* 17, no. 2: 123-42.

Martin, G. and H. Staines. (2004). "Managerial Competences in Small Firms," *Journal of Management Development* 13, no. 7: 23-34.

McClelland, D.C. (2007). "Characteristics of Successful Entrepreneurs," *Journal of Creative Behaviour* 21, no. 1: 18-21.

McGregor, J., D. Tweed, D. Kolb and J. Henley-King. (2000). "Gender and Managerial Competence: A Comparative Study of Male and Female Manufacturers." Paper submitted to the British Academy of Management, The Management School, the University of Edinburgh, September 13-15.

Miller, D. (2008). "Relating Porter's Business Strategies to Environment and Structure: Analysis and Performance Implications," *Academy of Management Journal* 31, no. 2: 280-308.

Minniti, M. (2004). "Entrepreneurial Alertness and Asymmetric Information in a Spin-Glass Model," *Journal of Business Venturing* 19, no. 5: 637-58.

Murphy, G.B., J.W. Trailer and R.C. Hill. (1996). "Measuring Performance in Entrepreneurship," *Journal of Business Research* 36, no. 1: 15-23.

Naman, J.L. and D.P. Slevin. (2003). "Entrepreneurship and the Concept of Fit: a Model and Empirical Tests," *Strategic Management Journal* 14, no. 2: 137-53.

Okpara, J. O., & Wynn, P. (2007). Determinants of small business growth constraints in a sub-Saharan African economy. *SAM Advanced Management Journal*, 72(2), pp.24-35.

Ostgaard, T.A. and S. Birley. (1994). "Personal Networks and Firm Competitive Strategy—A Strategic or Coincidental Match?" *Journal of Business Venturing* 9, no. 4:281-305.

Quinn, R.E., S.R. Faerman, M.P. Thompson and M.R. McGrath. (1990). *Becoming a Master Manager: A Competence Framework.* New York: Wiley.

Rebecca, E. O., & Benjamin, J. I. (2009). Entrepreneurial competences: The missing links to successful entrepreneurship in Nigeria. *International Business Research*, 2(2), pp.62-71.

Reuber, A.R. and E.M. Fischer. (2004). "Entrepreneurs' Experience, Expertise, and the Performance of Technology-Based Firms," *IEEE Transactions on Engineering Management* 41, no. 4: 365-74.

Robb, A.M. (2002). "Entrepreneurial Performance by Women and Minorities: The Case of New Firms," *Journal of Developmental Entrepreneurship* 7, no. 4: 383-97.

Roper, S. (1998). "Entrepreneurial Characteristics, Strategic Choice and Small Business Performance," *Small Business Economics* 11, no. 1: 11-24.

Sadler-Smith, E., Y. Hampson, I. Chaston and B. Badger. (2003). "Management Behavior, Entrepreneurial Style, and Small Firm Performance," *Journal of Small Business Management* 41, no. 1: 47-67.

Schmitt-Rodermund, E. (2004). "Pathways to Successful Entrepreneurship: Parenting, Personality, Early Entrepreneurial Competence, and Interests," *Journal of Vocational Behavior* 65, no. 3: 498-518.

Siu, W.S. (1996). "An Innovative Approach to Designing a Mail Survey for Small Firms," *Journal of Small Business and Entrepreneurship* 13, no. 3: 86-95.

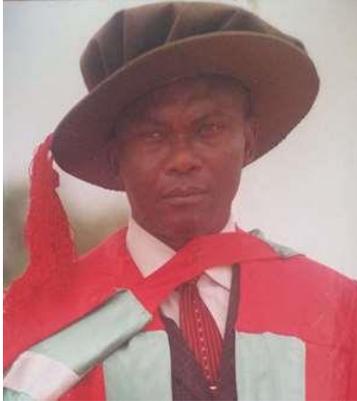
Snell, R. and A. Lau. (2004). "Exploring Local Competences Salient for Expanding Small Businesses," *Journal of Management Development* 13, no. 4: 4-15.

Spencer, L.M. and S.M. Spencer. (2003). *Competence at Work: Model for Superior Performance*. New York: John Wiley and Sons.

William, C. (2006). "Management Competence and the Management Education Needs of Science Graduates," *Management Learning* 27, no. 3: 301-22.

Zahra, S.A. (2003). "Environment, Corporate Entrepreneurship, and Financial Performance: A Taxonomic Approach," *Journal of Business Venturing* 8, no. 4: 319-40.

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