The Joint Moderating Effect of Location and Culture on Small Firm Performance

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Abstract

Due to the inconsistent findings on the influence of entrepreneurial factors on the firm performance, the author therefore proposed a contingency model in which the effect of individual determinants, external factor and firm characteristics are to be moderated by location and culture. As a result of this, a cross-sectional study of questionnaire survey approach was conducted and data was generated from 182 entrepreneurs/owner-managers of small firms in both manufacturing and service industries in Lagos through self-administered questionnaire procedure. The findings indicate that location and culture is insignificant in jointly moderating the relationship between individual determinants, external factors and firm characteristics, and firm performance.

Keywords Entrepreneurship determinants, entrepreneurship development, location, culture, external factor, performance

Introduction

Authors have continued to re-echo the importance of entrepreneurial development in terms of economic development, employment creation and improvement in the socio-economic life of the citizens (Rebecca and Benjamin, 2009; Okpara and Wynn, 2009). This goes on to re-affirm that a nation economic growth and development is highly dependent on entrepreneurial development (Minai, Lucky and Olusegun, 2011).

However, one major issue about entrepreneurship development is finding suitable entrepreneurial factors that could guarantee sustainable entrepreneurship. For instance, authors have continued to report mix-findings between the entrepreneurial factors and firm performance (Minai et al 2011; Man, Lau, and Chan, 2002; Yanfeng and Si, 2008; Kisfalvi, 2002; Dean, Bülent and Christopher 2000; Pelham, 1999; Chandler and Hanks, 1994; Cooper, 1993). These mix findings among authors suggest that further investigation on these factors should be conducted so as to ascertain their actual relationship with the small firm performance. As a result of this, this study therefore proposes a contingency model in which the effects of individual determinants, external factors and firm characteristics are to be moderated by location and culture. Past empirical studies have documented location and culture as the most influential factors that determine firm performance as well as entrepreneurship to a greater
extent ((Blackman (2003), Colin, Gerard, David and Robert (2005, McClelland (1961); Van de Ven (1993), Kuratko and Hodgetts (2004); Dean et a. 2000). Hence, they have been noted to play significant roles in the study of this nature (Minai et al. 2011). In line with this, Ogundele (2007) has argued that it is not only one factor but two or more factors that could significantly affect the entrepreneurial development, in particular firm performance. Hence, the joint moderating role of location and culture in this study is well justified. Therefore, the major objective of this study is to investigate the joint moderating effect of location and culture on the relationship between individual determinants, external factors and firm characteristics, and firm performance. It is hoped that the finding that are to be obtained in this study would be useful to entrepreneurs and policy makers charged with the responsibility of making entrepreneurial policies.

Related Literature Reviewed and Hypotheses Development

**Individual Determinant**

The individual determinant is highly rooted in the psychology theory of entrepreneurship. Theorists of this concept have greatly stressed the need for entrepreneur to possess certain entrepreneurial characteristics and apart from those individual characteristics needed to develop entrepreneurship and as such it is imperative to examine the relationship between entrepreneurship development and individual characteristics. The individual characteristic could also be referred to as entrepreneurial characteristics or qualities. Within the context of this discussion, the individual determinant is being discussed under the perspective of individual characteristics. These characteristics are needed for entrepreneurial development. Olanrewaju (2009) found that the entrepreneurial characteristics are strongly impacting on the entrepreneurial performance of small-scale business. William (2009) in assessing Zimbabwe’s entrepreneurship noted that if all the requisite entrepreneurial and managerial skill which is the products of entrepreneurial characteristics is acquired either by the entrepreneurs themselves or by the management for SMEs, they could translate these skills into entrepreneurial performance. Therefore, there is positive relationship between entrepreneurial characteristics and entrepreneurial development.

In line with this, Hashim (2005) noted that entrepreneurial characteristics can influence the type of firm that will be created as well as how it will be managed. Thus, it is important to understand the entrepreneurial characteristics of the entrepreneurs among them are; need for achievement and motivation, knowledge, skills, locus of control etc. Blackman (2003) asserted that individual’s characteristics are both attributed to his achievement which also has direct effect to the firm performance. Lawal (2005) and Ogundele (2007) in their studies of indigenous entrepreneurial development found that entrepreneurial characteristics which they called personal and psychological factor affect entrepreneurial performance. Furthermore, being fully aware of the complex nature of individual determinants variable in the academic field of entrepreneurship development in which no one single study can cover at a go, concentrating on a few variables of individual determinants most especially at the individual level would be more better and fruitful instead of lumping everything into one single factor. In this case, bearing in
mind their crucial importance and the unique nature upon which the research is being conducted, therefore, this study considered and focused on five crucial variables of individual determinants—mental capacity, motivation and needs, gender, biological make up and attitude, and are in this study called individual determinants.

External Determinant

External determinant has been described in various ways. For instance, it has been seen to mean situations in the environment while other studies viewed it as conditions found in the entrepreneurial environment. Hashim (2005) has also described it as some factors that are capable of dictating the failure and success of the entrepreneurial firms or entrepreneurs himself. The role of external environment has been widely recognized in determining and dictating the performance and the continue existence of the entrepreneurial firms most especially in this critical time. Hashim (2005) have shown that external factors have a very vital role to play in the determination of the failure or success of the entrepreneurial firms. Similarly, Van de Ven (1993) has argued in his work that any study in the field of entrepreneurship which does not regard other variables such as environment should be regarded as insufficient and incomplete. He asserted that research in entrepreneurship should try to look at or view entrepreneurship in a social system perspective which on the other hand gives attention to external environmental conditions and thus, should be considered more appropriate in the explanation of entrepreneurial process. Arowomole (2000) affirmed that the various factors, forces and actors that make up the external determinant could be problems or opportunities to the entrepreneurs and therefore can effectively determine or influence the entrepreneurial competence and performance of the entrepreneurs. Kuratko and Richard (2004) concurred that external factors could directly or indirectly affect or influence the entrepreneurial decisions thereby also affecting the performance.

Within the context of this study, the external factor only reflects the economic and environmental elements they formed the dimensionality of external factor. This is line with Kader, Mohamad, Ibrahim (2009) who regard external factor in this perspective. In this study, a few dimensions of external factors such as economic and environmental becomes more imperative in order to achieve a more better and fruitful result instead of lumping everything into one single factor. Therefore, this study considered and focused on economic and environmental dimension of external factor.

Firm Characteristics

Entrepreneurial firms are being managed by the entrepreneurs. Some of these firms are micro, and while others are small in size (Minai et al. 2011). Again, these firms could also be old or new. The nature of the firm, size of the firm and entrepreneurs’ firm knowledge are very crucial. All these form the firm’s characteristics and could greatly affect entrepreneurial development. Hashim (2005) asserted that firm characteristics seem to play a vital role in determining the performance of the firm and can further determine how well the entrepreneurship have been developed in the country. Wiklund and Shepherd (2005)
summarized the characteristics of “An entrepreneurial firm as the one that engage in product market, innovation, undertakes some what risky ventures, and is first to come up with “proactive”. Dean et al (2000) also reported that size affects a firm’s marketing capabilities, attitudes, needs, practices etc which are important determinants firms’ performance and success. In line with the above, some studies have examined the relationship between firm size and export performance which they measured by annual sales. The result was found to be fairly straightforward in terms of the effect of the size which was measured by annual sales.

Conversely, Dean et al (2000) argued that the connection between firm size which is contained in the firm’s characteristics and firm performance is a controversial issue in the field of research. They argued that there is a little in common with the measurement of size whereas the traditional concept is usually indicated by assets, employees, and sales. They further noted that other studies that have investigated the use of size to identify gap between group differences produced mixed results. Therefore, they concluded that the empirical findings on the relationship between firm size and export intensity (firm performance) are all mixed findings. Finally, based on the work of Kedar et al (2009) we limit external factors to environmental elements such as infrastructure.

Firm Performance

Both Trkman (2009) noted that performance measure is indispensable in the study of small firms due to the fact that their success or failure is being determined by performance factor. Both Hisham (2008) and Murphy, Trailer and Hill (1996) argued that “accurate performance measurement is critical to understanding new venture and small business success and failure”. Performance could be financial and non-financial (Hashim, 2008). Financial measurement has been argued to be the most appropriate in measuring small firm performance (Panigyrakis and Theodoridis, 2007; Murphy et al 1996)). This is due to the fact that financial measurement such as profitability seems to cover the overall objective of many firms, to provide financial income to the entrepreneurs. Indeed, Murphy et al (1996) suggest that financial measure is the primary measure of a firm success and performance. They argued that financial measure of small firms seems to be common and widely used mentioned that financial indicators seem to gain upper hand when discussing performance. This may be due to the ease of understanding where it can be used in ranking and judging how a firm is performing. Murphy et al (1996) and Panigyrakis et al (2007) define the financial measure of performance to include profit and growth. On the non-financial measure of performance, also known as operational measure, it is also important in measuring small firm’s performance (Ittner and Larcker 2003). They argued that non-financial performance measure helps managers and owners to ascertain the progress of the business despite of the difficulty in its measurement like the financial measure. For Campbell, (2007), the non-financial measure seems to compliment the financial measure in determining firm’s overall performance and success.

Ventkataraman and Ramanujam (1986) and Panigyrakis et al (2007) affirmed that it is very important to adopt both financial and non-financial indicators in measuring entrepreneurial performance since it may offer a broader perspective in measuring performance and clarify the
relationship between financial and non-financial aspects of firm performance under investigation. Accordingly, Murphy et al, (1996) suggested that researchers in both small firm and entrepreneurship field should always consider multiple dimensions of both financial and non-financial methods of measuring small firms’ performance in order to arrive at a better result. On the basis of arguments above, this study adopts both financial and non-financial objective measurement of profitability and growth of small firm performance. These two indicators of financial and non-financial measures seem to be important to entrepreneurs and small firms (Alam, 2009). Based on the discussions above, the following three (3) hypotheses are hereby formulated;

**Hypothesis 1:** there is a significant relationship between individual determinants and firm performance.

**Hypothesis 2:** there is a significant relationship between external factor and firm performance.

**Hypothesis 3:** there is a significant relationship between firm characteristics and firm performance.

**The Moderation Effects of Location and Culture**

Arguably, location and culture are indispensible factor that shapes and determines the success or failure of a firm or business activities (Lucky, 2011). Thus, they determine the effectiveness of the firm performance and business activities. Previous studies have revealed that firm performance is direct influenced by individual determinants, external factors and firm characteristics Blackman (2003); Ogundele (2007); Colin et al (2005); Lawal (2005); Van de ven (1993); Kader, Mohamad, and Ibrahim, (2009); Lim (2006) and Dean et al (2000). However, there have been inconsistent findings in the respective studies, giving room for the introduction of a moderating variable. The inconsistent findings also indicate that further investigations should be conducted on the role of culture.

In a similar dimension, (Hui and Idris, 2009) investigated the moderating effect of culture on the relationship between knowledge acquisition and organisation innovation. The found that organisational culture moderate the relationship between knowledge acquisition and organisation innovation. Also, Marino, Strandholm, Steensma and Weaver (2002) examined the moderating effect of national culture on the relationship between entrepreneurial orientation and strategic alliance portfolio extensiveness. The study found that culture did moderate their relationship. However, studies on moderating effect of culture on the relationship between individual determinants, external factor and firm characteristics, and firm performance seem to be scarce. Hui et al (2009) and Marino et al (2002) have suggested the need to re-investigate the moderating role of culture on other variables such as in the relationship between individual determinant, external factor and firm characteristics, and firm performance (Erik, Carl and Ragnhild, 2007).

A strategic location of the business could include the nearness to raw material, accessibility to business premises, good road network, busyness of the area of the business etc. However, Greening, Barringer, and Macy (1996) have noted that location is an important area that affect
firm performance, however, it has been neglected. Ilian and Yasuo (2005) defined location as the choice mode of entering business. Thus, the study viewed location in terms of type which could be local or international location. Also, Kala et al, (2010) defined location as choice of where a business is to be located which could be small, medium and large cities or urban or rural locations. This definition is in line with Esteban, Yancy and Christian (2010) referred to location as a choice of locating your business either in the rural or urban centre which is also link with the type of product or service the firm tends to offered. Orloff (2002) economic situation, density of entrepreneurs per capita, composition of local communities etc to location. Therefore, location could be defined as nearness and accessibility of the firm to raw materials, infrastructures, how busy the location is? How accessible the location is to the customers etc? Greening, et al (1996); Orloff (2002) have established the significant relationsh between location and small business performance.

Furthermore, Jennifer and Jill (2000) examined the moderating roles of self-guide importance, location relevance, and social self-domain centrality in the relationship between self-discrepancies and emotion. The study found that location relevance moderates the relationship between self-discrepancies and emotion. They noted that among all the moderating variables utilized in the study, location relevance was more significant in moderating the relationship between self-discrepancies and emotion. However, they called for more studies on the moderating role of location such as on the relationship between individual determinants, external factor and firm characteristics and firm performance was not found.

Therefore, this study argued that it is not only important for entrepreneurs and policy makers to only consider individual determinant, external factor and firm characteristics but that aligning these factors with location and culture would strengthen the effectiveness of these three factors in predicting small firm performance. Hence, it is assumed that location and culture would play significant roles of strengthen and stabilizing the relationship between individual determinant, external factor and firm characteristics, and firm performance.

From the above discussions, the following hypotheses are being advanced:

Hypothesis 4: Location and Culture will jointly moderate the relationship between individual determinants and firm performance.

Hypothesis 5: Location and Culture will jointly moderate the relationship between external factor and firm performance.

Hypothesis 6: Location and Culture will jointly moderate the relationship between firm characteristics and firm performance.

Figure 1: Research Framework

Research Design and Methodology

The study is a cross-sectional study of the joint effect of location and culture on the small firm performance. The study uses the data generated from the 182 entrepreneurs/owner-managers in Lagos, Nigeria. The data was collected through a well structured questionnaire administered on entrepreneurs/owner managers of small businesses who were identified from Lagos state.
local business directory. An initial pilot study was conducted on the business owners in one of the local government areas in Lagos, in particular Ejigbo local government. This gave the researcher a good opportunity to test both the face validity of the instruments used in this study. A total of 4425 firms were drawn from the Lagos state local business directory which therefore formed the population of the study. Based on the suggestion of Sekaran, Robert, and Brain (2001), a systematic sampling was used to pick 632 firms from the population of the study by picking every $K^{th}$ element in the population of the study, in this case; every 7$^{th}$ named firm was picked for the study. A total of 230 completed questionnaires were returned filled, thus, giving 36.4% response rate of the total sample. However, the returned completed questionnaires were further reduced to a total sample of 201(33.2%) for the fact that some of the returned questionnaires were not properly filled and as such were not qualified the study. Again, the sample was further reduced to 182 during the treatment of outliers and normality. Therefore, the actual sample used in this study for the analyses is 182 which gave a response rate of 29%. The collected data were all processed with one of the latest SPSS versions 17. Data were analysed using correlation analysis, multiple and hierarchy regressions while the hypotheses were also tested at 95 percent confidence level.

Measures

First, all items in this study were measured using five point likert-scale ranging from 1=strongly disagree to 5=strongly agree to measure the extent to which respondents agree or disagree to each of the statement or questionnaire.

Individual determinants

The individual determinants were conceptualized as entrepreneurial characteristics and it was measured based on five point likert-scale which was adapted from the work of Francisco and Yi-Wen (2006) and Ogundele (2000). A total of thirty-seven (37) questionnaire items comprising of; nine items for mental capacity, ten items for motivation and needs, eight items for attitude, five items for gender and five items for biological make up adopted from of Francisco et al (2006) and Ogundele (2000) were utilised to measure the variable.

External factor

External factor which was also conceptualized as the economic and environmental factors and was measured on five point likert-scale adopted from Kader at al (2009). Eight Questionnaire items adopted from the work of Kader at al (2009) were used to measure the variable.

Firm characteristics

This instrument was conceptualized as firm size, nature of firm and knowledge of the firm. The instrument was measured on five point likert-scale and items adapted from the work of Ensley and Amason (2000). Fifteen questionnaire items comprising of; three items for firm nature,
five items for firm size and seven items for firm knowledge adapted from the work of (Ensley et al 2000) and were utilised to measure the variable.

Firm performance

This study utilizes the profitability and growth objective measure of financial and non-financial to measure firm performance. Both Murphy et al (1996) and Ensley et al (2000) have asserted that profitability and growth objective measure of measuring firm performance is appropriate since it is in always line with the company’s objective. Ten items of two dimensions of profitability and growth adapted from the work of Francisco et al (2006); Ensley et al, (2000); Shradha et al (2005) and Murphy et al (1996) were utilized to measure the variable.

Data Analysis Techniques and Results

The data collected was from the main survey was subjected to data cleansing and data cleaning in order to identified missing value, sample characteristics and meet the assumptions of normality. A factor analysis was conducted on all the variables in this study. Within the individual determinants variable, the variable yielded a five-factor model based on the underlying variable structure of dimensions of the theoretical framework of this study via a principle component factor analysis with varimax rotation. However, out of the thirty seven items used to measure this variable, seven items were dropped for the reason of not meeting the acceptable limit level of above 0.5 as suggested by (Michael, Jackson and Wroblewski, 2000). Similarly, the external factor yielded a one-factor model as hypothesized via a principle component factor analysis with varimax rotation. All the eight items loaded above the acceptable limit of above 0.5 (Michael et al 2000). Accordingly, the firm characteristics variable yielded a three-factor model based on the underlying variable structure of dimensions of the theoretical framework of this study via a principle component factor analysis with varimax rotation. Two items from nature of firm were dropped for not meeting the acceptable loading limit. However, the rest items loaded above the acceptable limit and were retained. After this, the reliability and validity tests were also conducted. In the reliability test, variable with less than Cronbach’ alpha coefficient of 0.50 was not included in the analysis. All variables indicate a factor loading level above accepted limit of Cronbach Alpha coefficient of 0.50 as reported by Michael et al (2000). Equally, the variables were subjected to validity test. The validity of the instrument in this study was measured through Bartlett’s Test of Sphericity (Muhammad, 2009). Within this study, the KMO for the construct were all above .6 as recommended by Chakraborty (2010), Trent, Justen, Anastasios (2009), Nuradli, Hanifah, Shahida, Hairunnizam (2008) and Dahal (2004) meanwhile the table below show both the results of the Cronbach alpha and KMO of this study.

Table 1 here

Statistical Analysis
Two major data analyses techniques were applied in this study. First, the study used the correlation analysis to confirm the data as well as the hypotheses in order to establish the strength of the relationship between the independent and dependent variables. Accordingly, the multiple regression analysis was equally applied to test the hypotheses in order to establish the nature of the relationship between the predictor and outcome variables. Hence, the multiple regression analyses was used to test the direct relationship hypothesized in this study; (1) there is a significant relationship between individual determinants and firm performance, (2) there is a significant relationship between external factor and firm performance, (3) there is a significant relationship between firm characteristics and firm performance. The findings of the first three hypotheses based on correlation analysis are presented below:

**Table 2 here**

**Statistical Analysis**

A correlation analysis was employed to first establish the relationship between the independent variables and the dependent variable. The findings of the first three hypotheses are presented.

1. there is significant relationship between individual determinant and firm performance  
   \( r=399, \ p<0.01 \)
2. there is significant relationship between external factor and firm performance  
   \( r=.155, \ p<0.05 \)
3. there is significant relationship between firm characteristics and firm performance  
   \( r=472, \ p<0.01 \)

After this, a three-step approach techniques of hierarchical multiple regression analysis was then applied in order to test the joint moderating effect of location and culture on the relationship between the individual determinant, external factor and firm characteristics with firm performance. Here, it is imperative to note that all variables were all mean centred calculated (Lahiri and Kedia, 2009). The results show that location and culture do not jointly moderate the relationship between the individual determinants, external factor and firm characteristics, and firm performance. Meanwhile the findings of the hypotheses are presented below;

1. location and culture does not jointly moderate the relationship between individual determinant and firm performance  
   \( \text{Sig. } F\Delta=.419, \ F(2, 179) = 21.611, \ p<0.001 \)
2. location and culture does not jointly moderate the relationship between external factor and firm performance  
   \( \text{Sig. } F\Delta=.743, \ F(2, 179) = 16.936, \ p<0.001 \)
3. location and culture does not jointly moderate the relationship between firm characteristics and firm performance  
   \( \text{Sig. } F\Delta=.868, \ F(2, 179) = 14.699, \ p<0.001 \)

**Tables 3, 4 and 5 here**

**Discussion of Result**
This study investigates the joint moderating effect of location and culture on the small firm performance. The three (3) main hypotheses; (1) there is a significant relationship between individual determinants and firm performance, (2) there is a significant relationship between external factor and firm performance, (3) there is a significant relationship between firm characteristics and firm performance were tested using hierarchy regression analysis. The overall results show that the joint moderating effect of location and culture is insignificant in the relationship between individual determinants, external factor and firm characteristics, and firm performance. This result is inconsistent with Hui and Idris findings, (Hui et al 2009) which, affirmed that culture plays a significant moderating role. One plausible explanation on this result could be the cultural and environmental differences (Okpara et al 2007; Sekeran et al 2001). For instance, the cultural elements such as; cultural beliefs, values and practices may have been degraded over time in nigeria due to unpleasant nature of the environment in which the firms are operating (Odoshimokhe, 2011; Nwaobi, 2010; Emma, 2000). Accordingly, the heavy traffic jam may have also contributed to this insignificant result as it was observed that it takes three (3) to four (4) hours before people could get to the firms they want to transact business with.

However, the result is consistent with Light, and Carroll, Rhee and Rhee findings, (Light, 1980; Carroll, Rhee and Rhee, 2000). Light (1980) asserted that black culture was insignificant in the entrepreneurial development as well as firm performance. Similarly, Carroll et al, (2000) affirmed that culture was insignificant in explaining international saving rate differential. Furthermore, the finding obtained in this study is however consistent with Orloff (2002) and Jennifer et al (2000) findings. Orloff (2002) asserts that location is a significant factor in determining firm performance. Accordingly, Jennifer et al (2000) found that location relevance moderates the relationship between self-discrepancies and emotion. They noted that among all the moderating variables utilized in the study, location relevance was more significant in moderating the relationship between self-discrepancies and emotion.

The results suggest that location and culture cannot jointly enhance or improve small firm performance. It therefore indicates that entrepreneurs/owner-managers should not consider location and culture jointly in an attempt to utilize them to improve their firm performance. It further suggests that entrepreneurs/owner managers should consider location and culture individually when thinking of enhancing their firm performance. Thus, in order to effectively enhance the firm performance, the entrepreneurs must consider each of these factors separately rather than jointly factors.

Another important note is that firms or entrepreneurs that consider each of these factors individually are most likely to achieve a better firm performance than the ones that jointly consider both factors. The findings indicate that both location and culture play a different role with separate contribution in enhancing small firm performance. In this regard that the results obtained in this study should be treated with caution as the result could be different given a different environment.

Conclusion
This study adopts and incorporates model from Ogundele (2007) to develop a broader dimensionality and better framework for enhancing small business performance particularly in Nigeria and as such gave a serious considerations to joint effect of location and culture which have been in the literatures to have serious influence in predicting small firm performance. Therefore, within the context of the hypotheses tested in this study and the findings obtained, the following conclusions are therefore made;

1. The results confirmed the hypotheses that location and culture does not jointly moderate the relationship between the individual determinant, the external factor and firm characteristics, and firm performance.
2. However, on the overall, that both location and culture should be considered individually in an attempt to utilise them in enhancing small firm performance. This finding should be interpreted with caution as both location and culture could produce a different result given a different environment.
3. The findings did not support Ogundele’s argument on the fact that two or more factors better impact on the firm performance.

Limitations and Suggestion for Future Study

Obviously, there is no research with its limitations. Therefore, the results of this study should be interpreted in the light of two limitations. First, the study covers only manufacturing and service sectors based on this the findings of this study may be limited to these sectors. Therefore, future studies in this domain should endeavor to include other sectors such as the distributive, trading and marketing sectors as they are also very essential in the economy.

Second, this study is conducted in a problematic environment like that of Nigeria which may also limit the findings of this study. Therefore, future studies in this field should try to conduct similar study in other environment or similar environment. This would validate the result obtained in this research work.

Reference


Iwere, N. (2010) Social Implication of Unemployment. The Sun newspaper, April 12, 2010


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**Figure 1: Research Framework**

**Table 1**

Reliability and Validity scores by the construct used in this study (N=182)
### Table 2
**Correlation analysis among variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Indv</th>
<th>Extfact</th>
<th>Fimch</th>
<th>Perf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual determinant</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External factor</td>
<td>.229**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm characteristics</td>
<td>.621**</td>
<td>.311**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>.399**</td>
<td>.155*</td>
<td>.472**</td>
<td>1</td>
</tr>
</tbody>
</table>

* p<0.05; ** p< 0.01, n= 182

### Table 3
**Hierarchical Regression Result for Moderating Effect of Location and Culture on firm performance**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Model 1 (Step1)</th>
<th>Model 2 (Step2)</th>
<th>Model 3 (Step3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Determinant (beta)</td>
<td>0.385</td>
<td>0.230</td>
<td>0.283</td>
</tr>
<tr>
<td>Location (beta)</td>
<td>0.064</td>
<td>0.172</td>
<td></td>
</tr>
<tr>
<td>Culture (beta)</td>
<td>0.260</td>
<td>0.347</td>
<td></td>
</tr>
<tr>
<td><strong>Interactive Terms</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDV<em>LOC</em>CUL</td>
<td>-0.185</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.148</td>
<td>0.199</td>
<td>0.202</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.143</td>
<td>0.185</td>
<td>0.183</td>
</tr>
<tr>
<td>R²∆</td>
<td>0.148</td>
<td>0.050</td>
<td>0.003</td>
</tr>
<tr>
<td>F∆</td>
<td>31.306</td>
<td>5.596</td>
<td>6.553</td>
</tr>
<tr>
<td>Sig. F∆</td>
<td>0.000</td>
<td>0.004</td>
<td>NS</td>
</tr>
</tbody>
</table>

* p<0.05, ** p<0.001, Sig = Significant, Not Sig. = Not Significant

### Table 4
**Hierarchical Regression Result for Moderating Effect of Location and Culture on firm performance**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
</table>

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**Variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Item No</th>
<th>Cronbach’s Alpha Scores</th>
<th>KMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Determinant</td>
<td>27</td>
<td>.840</td>
<td>.721</td>
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<tr>
<td>External Factor</td>
<td>8</td>
<td>.853</td>
<td>.834</td>
</tr>
<tr>
<td>Firm Characteristics</td>
<td>13</td>
<td>.857</td>
<td>.829</td>
</tr>
<tr>
<td>Firm Performance</td>
<td>10</td>
<td>.820</td>
<td>.837</td>
</tr>
</tbody>
</table>
### Table 5
Hierarchical Regression Result for Moderating Effect of Location and Culture on Firm Performance

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Model 1 (Step1)</th>
<th>Model 2 (Step2)</th>
<th>Model 3 (Step3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Firm Characteristics (beta)</strong></td>
<td>0.472</td>
<td>0.369</td>
<td>0.356</td>
</tr>
<tr>
<td>Location (beta)</td>
<td>0.041</td>
<td>0.022</td>
<td></td>
</tr>
<tr>
<td>Culture (beta)</td>
<td>0.141</td>
<td>0.126</td>
<td></td>
</tr>
<tr>
<td><strong>Interactive Terms</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRCH<em>LOC</em>CUL</td>
<td></td>
<td>0.035</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.223</td>
<td>0.234</td>
<td>0.235</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.0218</td>
<td>0.222</td>
<td>0.217</td>
</tr>
<tr>
<td>$R^2 \Delta$</td>
<td>0.223</td>
<td>0.012</td>
<td>0.000</td>
</tr>
<tr>
<td>$F \Delta$</td>
<td>51.516</td>
<td>1.387</td>
<td>0.028</td>
</tr>
<tr>
<td>Sig. $F \Delta$</td>
<td>0.000</td>
<td>0.253</td>
<td>NS</td>
</tr>
</tbody>
</table>

*<0.05, **p<0.001, Sig = Significant, Not Sg. = Not Significant*