INFLUENCE OF STRUCTURAL HOLES ON FINANCIAL PERFORMANCE OF MEDIUM SIZED ENTERPRISES KENYA

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ABSTRACT

The purpose of this study was to examine the influence of structural holes on financial performance of medium sized enterprises in Kenya. This is because the Medium sized enterprises play an important economic and social role in many countries. If these firms want to remain competitive and sustainable there is need to understand the influence of entrepreneurial networks on financial performance. A descriptive survey design was adopted. The target population was drawn from 51 medium sized enterprises in Kenya which participated in the top 100 mid-sized ranking for the period 2011 to 2015 by KPMG. Multi stage, systematic and purposive sampling was used to select a sample of 255 which has the data needed in the study. Primary data was collected using questionnaires. Statistical Package for Social Sciences (SPSS) was used in the analysis of data. The study findings indicated that structural holes were a key driver of financial performance of medium sized enterprises in Kenya. This was evidenced by the responses from the respondents who agreed that members of their organization belonged to professional network, by being part of the professional network has improved the organization’s overall performance, their organization used social media personalities/ brand ambassadors to sell their brands to the general public and the internal policies and guidelines of their organization were effectively made clear to all employees. The study concluded that an individual can be constrained in a network if they have too few contacts; has contacts closely connected with one another; or shares information indirectly via a central contact therefore companies that strategically use influencers to bridge structural holes may be able to create brand equity more efficiently. The findings encourage managers to engage in active networking with different actors within and outside of existing networks and especially with those who are relevant to the business in which a manager and a firm operate. The results strongly support the necessity for managers to create new active co-operational relationships.

Key Words: Structural Holes, Financial Performance, Medium Sized Enterprises, Entrepreneurial Networks
INTRODUCTION

Medium sized enterprises are faced with major challenges of constantly improving their performance by reducing costs, enhancing quality and differentiating their products and services. The market environment in the Kenya has been extremely turbulent during the past decade, and to maintain continuous success in the face of global competition, firms must identify and analyze environmental characteristics and develop strategies to meet changing market needs. These enterprises need to respond to greater global imperatives and challenges to compete effectively in local and global markets (Waiganjo, Mukulu & Kahiri, 2012).

Literature on entrepreneurial networks has substantially increased in volume during the last few years. The interest has been driven both from the entrepreneurial side, where businesses inter-link rapidly and form network configurations, and from the policy side, where governments have implemented a variety of policies to encourage economic growth through self-employment and to support small businesses. The active positioning of entrepreneurial firms in the business arena coincides with building effective business relationships with customers and suppliers, with government bodies and large corporations, or with professional bodies and lead clients. This makes small firms to be embedded in an intricate set of business relationships, connecting local, national and international partners, government agencies, financial institutions, or consumer and professional associations. Donckels and Lambrecht (1997) define entrepreneurial networks as organized systems of relationships with customers, suppliers, and other entrepreneurs, with relatives, external consultants and other agents, or potential partners.

A structural hole is the gap that exists between two people. Individuals within a social network form clusters of friends, such as acquaintances and business associates. Burt,(2000) claims that ‘bridging’ ties between two separate groups has stronger benefits by brokering information sharing. With stronger internal collaboration and increased knowledge of trends, firms perform better against their competitors. Network density is the proportion of ties present, relative to ties possible among actors in a neighborhood. In other words, it is a measure of how many of ego’s friends are friends themselves, controlling for ego’s network size. Representing the potential strength of normative pressures toward conformity (Marsden, 1987), network density is often treated as an indicator of the extent to which individuals identify with those around them (Brown, 1990). It has been found to be related to a number of outcomes, including subjective feelings of well-being (Fischer, 1982;) and students’ academic achievement (Gonzalez, 2007), each exemplifying the notion of network closure as an important source of social capital (Coleman, 1988). It is well established that entrepreneurs in emerging economies cultivate personal networks to countervail uncertainty associated with unpredictable government regulation, rapid industrial growth, and increasing competitive intensity (Luo, 2003).

Statement of the Problem

Medium-sized enterprises play an important role in the world’s economy in that they contribute substantially to income, output and employment and by number, dominate the world business stage (Ayyagari, Demircu, & Maksimovic,2011). According to the Kenya’s Vision 2030, these enterprises are viewed as key drivers to economic and social development and represent a large number of businesses, generating enormous wealth and employment (RoK, 2011). The said enterprises are widely considered to be vital to a country’s competitiveness (Kiraka,2013).
Medium sized enterprises face challenges in globalized economies and only innovative sustainable strategies can save them from this competitive environment. Notably, these enterprises in comparison with large enterprises have inadequate access to capital and finance, obsolete technology, lower economies of scale, inadequate management skills and lack of labor training (Antonio & Gregorio 2005). Therefore, these enterprises need support and resources from external parties such as other enterprises, supporting institutions, relatives and friends which are their entrepreneurial networks (Fatima, Ali & Arif 2012).

Entrepreneurial networks are revealed to advance the entrepreneurial value by increasing competitive advantage and resource approach without capital investment. Networks can help entrepreneurs expose themselves to new opportunities, obtain knowledge, learn from experience and benefit from synergistic effect of pooled resources (Mungania, Gakure & Karanja 2017). Networking occurs as an inherent entrepreneurial activity because proprietors of medium enterprises are in networking activities such as interacting and participating in social, business and trade which have cost implications. Notwithstanding the costs, networking is known to increase the leverage ability of internal resources and hence financial performance of medium sized enterprises (Okatch, 2012). Moreover, despite the need of medium sized enterprises to become competitive and the proposal that entrepreneurial networking is one of the ways through which this can be achieved, little has been deliberately done to exploit this strategy (RoK 2007-2011). Existing literature on networking and financial performance looked at different dimensions, context and produced mixed results.

Thrikawala (2010) studied strategic networks and success of SMEs in Sri Lanka and in particular how networks are set up, the actors and role of networks. This was an exploratory study which sampled of 50 SMEs. Data was collected using structured questionnaires and results revealed that social and strategic networks provide successful start-up and lifelong competitive advantage.

Peprah (2010), on the other hand explored the role networking play in making entrepreneurship among women entrepreneurs in Ghana. Using a sample of 320 women entrepreneurs data collected was collected and analyzed through Ordinary Least of Squares (OLS) and Multinomial Logit (ML). It was noted that networks were there but not used by women entrepreneurs, thus an inclusive financial strategy to emphasize networking be recommended.

Obura, Abeko and Obere (2010) studied the role and impact of networks on SMEs performance and sustainability in Kenya. Variables of concern were social, supporting and interfirm networks while performance was measured through sales, profit and expansion. A sample of 400 was selected from Nairobi, Eldoret, Kakemega and Kisumu by use of multistage sampling. From the results it was apparent that through entrepreneurial networking, the entrepreneurs can gather information, look for customers and suppliers and obtain resources needed.

Maina et al (2016) studied network dimensions and firm performance among manufacturing SMEs in Kenya. Variables analyzed were network range and intensity. The design used was descriptive, data was collected using a questionnaire among a sample of 132 and the main theory that guided the study was social capital theory. It was evident that network range and intensity had a positive and significant relationship on firm performance. Although this study covered some dimensions of size (range) and density (intensity), the current study extends the scope of the variables by including structural holes, network centrality and network structure.
Mungania, Gakure and Karanja (2017) studied networking as business linkage on growth of dairy SMEs in Mt. Kenya region using descriptive research design, a sample of 309, both primary and secondary data. The variables on focus were network involvement, dimensions and contributions. The results showed that networking was common among SMEs in the Dairy sector and market information sharing was the shared dimension.

The study is different from the other studies of entrepreneurial networking. First, it expanded the scope of size and density by including more dimensions such as structural holes, network structure, network centrality which have received limited attention in empirical studies. In addition, performance has been measured using different indicators such as growth, expansion, sales and profit. In this study ROA and ROI whose relationship with EN has not received sufficient inquiry was used in addition to sales, profitability and growth.

Most of the reviewed studies are in specific sectors such as manufacturing, technology, service and dairy while the current study examined medium sized enterprises in several sectors which will make the findings more generalizable. In addition, the previous studies predominately employed quantitative techniques however the current study comprises both qualitative and quantitative data where the results will be triangulated to enhance the validity of the findings. Majority of the studies reviewed were conducted in different countries and those conducted in Kenya have not dealt with structural holes among the medium sized enterprises. Therefore, this study sought to fill the gaps.

**Purpose of the Paper**

To determine whether structural holes influences the financial performance of medium sized Enterprises Kenya

**LITERATURE REVIEW**

A structural hole is the gap that exists between two people. Individuals within a social network form clusters of friends, such as acquaintances and business associates. Gaps between clusters are holes in the structure of information flow, or more simply, structural holes (Burt, 2005). These structural holes are the empty spaces in social structure, or “gaps in the social world across which there are no current connections” between individuals (Kilduff & Tsai, 2003). Individuals with a high degree of social capital bridge the gaps created by such holes (Burt, 2005). People whose network ties bridge the holes “are brokers rewarded for their integrative work. They are rewarded in the sense of more positive individual and team evaluations” (Burt, 2005).

The bridging of structural holes can be measured in multiple ways. Burt (2000) notes that, even a simple count of bridge relationships seems to work; people with more bridges do better. The more concise method to measure brokerage of structural holes is through the amount of closure in the network, determined by constraint. Constraint can be considered a measure of an individual’s inability to span structural holes (and therefore possess less social capital). An individual can be constrained in a network if they have too few contacts; has contacts closely connected with one another; or shares information indirectly via a central contact.

Structural holes add value for both brands and organizations. For brands, holes act as a high-speed delivery system that uses specific Influencers to increase brand awareness and impact consumer attitudes. With the growth of SNSs, searching social networks for structural holes and Influencers will continue to be a significant component in marketing campaigns. For organizations, structural holes fuel internal collaboration and the ability to respond to industry trends. The increase of large-firm mergers as a response to globalization places more emphasis on
understanding internal and external structural holes as well as overall organizational theories (Oh, Chung & Labianca, 2004).

Structural holes in teams can help prevent the overly restrictive enforcement of norms that occurs as team members come under close surveillance from mutual friends (Krackhardt, 1999). If structural holes are absent, sets of routines taken for granted by cohesive team members may ossify into rigid rules (Barker, 1993). Diversity of views and openness to new ideas within the group are, therefore, likely to be protected by the presence of structural holes in teams. Teams that lack structural holes tend to disinclined to accept ideas originating from outside the team (Oh, Chung & Labianca, 2004) and tend to view non-group members negatively (Sherif, 1961). The presence of structural holes within a team can facilitate increases in the team’s ability to produce or absorb new problem solutions.

**Methodology**

This study adopted a descriptive survey design to collect data on structural holes and financial performance of medium-sized firms in Kenya. The survey was cross-sectional and therefore collected data from a number of different respondents at a single point in time.

The population was the medium sized enterprises in Kenya. In this case the target population was all medium sized enterprises that appeared on the list of Top 100 between 2011-2015 from which the specific enterprises was selected and samples drawn from them. The selected firms were those that had appeared on the list for three or more times within the period under study. There were 51 enterprises that appeared more than three times. A design sample, according to Kothari (2014), is an architecture or rather, the strategy utilized to select study respondents or actors. Sampling for the study was done to reduce accessibility and cost of the population studied, and ensure quick data collection. Sample size was achieved by the use of a multi-stage. In selecting the study’s analysis unit, purposive sampling method was utilized. This method was used to select respondents from employees in the management level that is from the human resource, marketing and business development sections. The selected respondents from Human resource, marketing and business development department were more involved in entrepreneurial networking in their enterprises.

Purposive sampling method was used to select the unit of analysis to be used in the study. Notably the sampling process was non-scientific and therefore no need for using the formula. Primary data collected was coded and analyzed using SPSS version 20.0. The data collected from medium sized enterprises employees was subjected to quantitative analysis and key summaries were made.

**RESULTS AND DISCUSSIONS**

**Factor Analysis**

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and Cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor. Total Variance analysis indicated that the 7 statements on structural holes could be factored into 1 factor. The total variance explained by the extracted factor is 41.83%. The factor loadings for sub-constructs of structural holes attracted coefficients of more than 0.4 hence all the statements were retained for analysis. According to Rahn (2010) and Zandi (2006) a factor loading equal to or greater than 0.4 is considered adequate. This is further supported by Black (2002) who asserts that a factor loading of 0.4 has good factor stability.
and deemed to lead to desirable and acceptable solutions.

**Descriptive Analysis**

The objective of the study was to determine whether structural holes influence the financial performance of medium sized Enterprises Kenya. Table 1 showed that 31.7% of the respondents agreed that members of their organization belonged to professional network, while 28.3% agreed that by being part of the professional network had improved the organization’s overall performance and 70.2% disagreed that their organization paid for its member’s annual subscription fee for being members of the professional networks. In addition, 22.5% of the respondents agreed that their organization used social media personalities/ brand ambassadors to sell their brands to the general public, 37.1% agreed that their enterprise formulates policies relating to networking and 67.9% agreed that the internal policies and guidelines of their organization were effectively made clear to all employees. Finally 72.7% of the respondents agreed that their organization’s management was open to diverse ideas. The mean score for responses for this section was 3.25 which indicated that majority of the respondents agreed to a little extent that structural holes influenced financial performance of medium sized enterprises in Kenya.

The study findings were in line with those of Zaheer and Bell (2005) who asserted that companies that strategically use Influencers to bridge structural holes may be able to create brand equity more efficiently. Social media sites have the ability to create conversations around a brand or product. Influencers may also be labeled as Brand Storytellers or Brand Ambassadors who shape and positively affect the opinions of products and services (Booth &Matic 2011). However, they can also be detrimental if a marketing department uses Influencers as pawns instead of sharing the control of the brand (Subramani &Rajagopalan 2003). An example of this might be a poor review or comment posted on a social networking site. Brands may be controlled by consumers, but successful companies accept this conclusion, listen, and act on conversations in order to adjust their products or services accordingly (Booth &Matic, 2011).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members of our organization belong to professional network</td>
<td>3.4%</td>
<td>6.3%</td>
<td>58.5%</td>
<td>22.9%</td>
<td>8.8%</td>
<td>3.27</td>
</tr>
<tr>
<td>By being part of the professional network has improved the organization’s overall performance</td>
<td>2.4%</td>
<td>9.8%</td>
<td>59.5%</td>
<td>21.5%</td>
<td>6.8%</td>
<td>3.2</td>
</tr>
<tr>
<td>Our organization pay for its member’s annual subscription fee for being members of the professional networks</td>
<td>36.1%</td>
<td>34.1%</td>
<td>17.1%</td>
<td>8.3%</td>
<td>4.4%</td>
<td>2.11</td>
</tr>
<tr>
<td>Our organization uses social media</td>
<td>5.4%</td>
<td>16.1%</td>
<td>56.1%</td>
<td>21.0%</td>
<td>1.5%</td>
<td>2.97</td>
</tr>
</tbody>
</table>
personalities/brand ambassadors to sell our brands to the general public.

Our enterprise formulates policies relating to networking: 1.5% 6.8% 54.6% 33.2% 3.9% 3.31

The internal policies and guidelines of our organization are effectively made clear to all employees: 1.0% 2.0% 29.3% 45.9% 22.0% 3.86

Our organization’s management is open to diverse ideas: 2.9% 2.9% 21.5% 35.1% 37.6% 4.01

Average: 7.5% 11.1% 42.4% 26.8% 12.1% 3.25

**Linearity**

Linearity of variables was tested using correlation coefficients as suggested by Cohen, West and Aiken, (2003). To establish whether there is a linear relationship, the study adopted the Pearson product of moment’s correlation coefficients (R). The results indicated that the variables financial performance and structural holes had a strong positive relationship as indicated by a correlation coefficient of 0.770. This implied that there is a linear positive relationship.

**Regression Analysis**

Regression analysis was conducted to empirically determine whether structural holes were a significant determinant of financial performance of medium sized enterprises in Kenya. Regression results indicated the goodness of fit for the regression between structural holes and financial performance was satisfactory. An R squared of 0.593 indicated that 59.3% of the variations in financial performance are explained by the variations in structural holes.

**Table 2: Model Summary for Structural Holes**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>0.77</td>
</tr>
<tr>
<td>R Square</td>
<td>0.593</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.591</td>
</tr>
<tr>
<td>Std. Error of the Estimate</td>
<td>0.38961</td>
</tr>
</tbody>
</table>

The overall model significance is presented in Table 3, an F-statistic of 296.269 indicated that the overall model was significant (P value= 0.000). The findings implied that structural holes were statistically significant in explaining financial performance of medium sized enterprises in Kenya.

**Table 3: ANOVA for Structural Holes**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>44.971</td>
<td>1</td>
<td>44.971</td>
<td>296.269</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>30.814</td>
<td>203</td>
<td>0.152</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>75.785</td>
<td>204</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The structural holes coefficients were presented in Table 4. The results showed that structural holes contribute significantly to the model since the p-value for the constant and gradient are less than 0.05. The
findings implied that one positive unit change in structural holes effectiveness leads to a change in financial performance at the rate of 85.8%. This confirmed the positive effect of structural holes on financial performance. The fitted equation was as shown below:

\[ Y = 1.347 + 0.858X_1 + e \]

### Table 4: Coefficients of Structural Holes

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.347</td>
<td>0.165</td>
<td>8.147</td>
<td>0.000</td>
</tr>
<tr>
<td>Structural holes</td>
<td>0.858</td>
<td>0.05</td>
<td>17.212</td>
<td>0.000</td>
</tr>
</tbody>
</table>

### Conclusion and Recommendations

The study findings indicated that structural holes were a key driver of financial performance of medium sized enterprises in Kenya. The study concluded that structural holes were statistically significant in explaining financial performance of medium sized enterprises. The study concluded that an individual can be constrained in a network if they have too few contacts; has contacts closely connected with one another; or shares information indirectly via a central contact therefore companies that strategically use influencers to bridge structural holes may be able to create brand equity more efficiently.

Based on the results, findings and conclusions the following recommendations were deciphered. The findings encourage managers to engage in active networking with different actors within and outside of existing networks and especially with those who are relevant to the business in which a manager and a firm operate. The results strongly support the necessity for managers to create new active co-operational relationships. The reason for this recommendation is twofold. First, the evolution of a firm creates the need for new contacts and ties. This need corresponds to a change in the situation of a firm, which can be regarded as, for instance, a need for new contacts in a new market or a change in the technology that is exploited by the firm. Second, managers must create new social capital to replace the natural depreciation of the existing social capital.

### References


