Implications of Responsive Cultures of Knowledge Sharing on Non-Financial Performance: An Empirical Study of Family Owned Micro, Small and Medium Enterprises in Migori, Kenya

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Abstract:  
In the last decade, sharing of new knowledge has become an essential component for the survival of enterprises that are keen on maintaining their overall competitiveness. More and more studies are confirming that when a culture of sharing knowledge is prevalent in an organization, then its competitive edge is significantly enhanced. However, it is yet to be confirmed whether family firm’s non-financial performance can be greatly improved as a result of fostering of a culture of sharing of the organization’s knowledge. A culture of knowledge sharing is premised on the notion that an enterprise’s most prized asset is the knowledge of its workforce. Nevertheless, despite the tremendous attention that sharing of knowledge in organizations has received in the last decade, its effect on family owned Micro Small and Medium Enterprises’ non-financial performance has been largely ignored. The purpose of this study was therefore to investigate the effect of knowledge sharing culture on non-financial performance of family owned Micro, Small and Medium Enterprises in Migori County, Kenya. Survey research design was used for the study with a sample size of 118 respondents. Simple and stratified random sampling techniques were adopted. Findings revealed that knowledge sharing culture had a positive and statistically significant effect on non-financial performance of family owned Micro, Small and Medium Enterprises in Migori County, Kenya. The study recommends that the family owned firm management should aspire to create an environment where knowledge sharing is cultivated through effective processes, enhanced collaboration, openness and availing of rewards to enable improved non-financial performance. Policy makers, on the other hand, should create a model knowledge sharing framework for family owned firms aimed at improving non-financial performance.

Keywords: Knowledge sharing culture, family owned firms, non-financial performance

1. Introduction

Janus (2015) regards knowledge sharing as a subset of knowledge management encompassing the exchange of knowledge within and across organizations. It imperative, therefore, that organizations visualize a robust knowledge sharing culture as tool meant to enable exchange of information, skills, experience and expertise within the enterprise geared at improving its competitiveness. Moreover, organizations have recognized that knowledge that is shared constitutes a valuable intangible asset for creating and even sustaining competitive advantages enjoyed by the firm (Miller& Shamsie,1996).In the last two decades, a number of studies have investigated the association between knowledge sharing and performance (Ohiorenyia & Iyamah, 2015; Ritala, Olander, Michailova & Husted 2015). Nonetheless, the continued tilting of research focus of knowledge sharing initiatives to performance is hurting research since it has been largely revealed that non-financial performance is crucial to the largely sought financial performance for which most research focus has shifted to (Malgarni et al, 2010). There is therefore need to unravel the association between knowledge sharing and non-financial performance.

A culture of knowledge sharing is important since the resulting ideas, processes, information are crucial for the ever-evolving trade requirements of the current business world (Janus, 2015).Furthermore, it is largely appreciated that sustainable competitive advantage requires continuous knowledge sharing of new knowledge. Increasing turnover of staff from organization also necessitates that knowledge is shared for the sake of new employees. To encourage knowledge sharing, that an ideas database should be created and that people should be paid for their contributions and collaborations involved in achieving the novel ideas (Gurteen, 1999).Moreover, technology plays a crucial transformational role and is a key part of changing the corporate culture to knowledge sharing one. In many ways it is technology that has made
knowledge sharing a reality – in the past it was impossible to share knowledge or work collaboratively with co-workers around the globe.

Prior studies have identified several knowledge sharing culture indicators in organizations. For instance, processes in the organization to facilitate knowledge sharing (Halloway, 2016; Janus, 2016; Mac Alister, 2016; Garfield, 2017), openness, trust and freedom by both management and employees (Mac Alister 2016; Ni, Cui, Sang, Wang, & Huang, 2016), reward and recognition for knowledge sharing (Alhousary & Underwood, 2016; Halloway, 2016; Garfield, 2017). Another indicator is technology (Halloway, 2016; Garfield, 2017). In addition, there is effective collaboration and communication (Janus 2015; Halloway, 2016; Garfield, 2017). Yet despite the existence of these indicators in organizations, their relationship to performance, has majorly been explored in relation to performance from a general perspective of performance (Ohiorenoya & Iyamah, 2015; Hussain et al., 2015; Marouf, 2016).

Ohiorenoya and Iyamah (2015) empirically investigated the relationship between knowledge sharing in organizations and their performance with emphasis on Oil and Gas companies in Nigerian. A sample of 100 was hived from a population of 300 employees taken from each of the Oil and Gas firms using survey design. The study found that knowledge sharing associated highly positively with organizational performance but a study was, however, needed to find out the relationship between knowledge sharing culture and non-financial performance. The study proved that survey can be used to gather data, in addition, this study used measures such as supplier support and process efficiency which are non-financial performance measures. A study was therefore needed to unravel the relationship between a culture of knowledge sharing and its effect on non-financial performance of the family owned firms. Non-financial performance measures are a set of variabilities for instance the level of customer satisfaction, satisfaction of employees with their jobs, and the systems management use for control including others that are not measured by financial systems (Malgharini et al., 2010). The study used non-financial performance measures such as customer satisfaction, customer retention, employee satisfaction, employee retention, product quality and service quality.

2. Theoretical Foundation of Knowledge Sharing Culture

The resource based view theory (Penrose, 1959; Barney 1986) stresses the role of resources for organizations and their net impact on firm performance. The theory advocates that an enterprise’s long-term competitive advantage is achievable due to the non-comparable resources available in the enterprise which in most cases are rare to find, of value, cannot be copied, and difficult to substitute, as well as firm-specific which it ultimately exploits to her advantage (Barney, 1999). In view of this theory, therefore, the enterprise's ability to bring about long term and sustainable competitive advantage is enhanced when a culture of knowledge sharing is instituted in an organization such that the products of sharing cannot be imitated by competitors, thereby creating a barrier to sustainability of that competition (Mahoney & Pandian, 1992). The theory therefore supports establishment of a knowledge sharing culture in the organization to enable the firm benefit from their valuable knowledge which is in most cases rare, difficult to imitate and difficult to replace and therefore essentially different from other firm’s knowledge for the organization’s benefit.

3. Data and Methodology

The study employed simple linear regression in measuring the association between knowledge sharing culture and non-financial performance as shown below;

\[ \text{NFP} = \beta_0 + \beta_1 \times \text{KSC} + \varepsilon \]

Where: \( \beta_0 \) is the constant term, \( \beta_1 \), is the regression coefficients associated with KSC, KSC is knowledge sharing culture, and, \( \varepsilon \) is the error term.

The data were subjected to diagnostics in order for the linear regression analysis to be reliable and valid. Durbin Watson statistic (Garson, 2012) was used to test for autocorrelation in the residuals. Durbin Watson values for the Models were 1.715, 1.942, 2.076, 1.847 and 1.802 respectively. It was therefore evident that all Durbin Watson figures ranged from 1.715 to 2.076. And, since the Durbin Watson statistics fell in the range of 1.5 to 2.5, it was concluded that they were normal figures for the requisite range and by extension there was no autocorrelation in the survey data(Garson (2012). The Kolmogorov-Smirnov Goodness-of-Fit Test was used was used to ascertain if the study sample for knowledge sharing culture came from a population with specific distribution (Chakravart, Laha & Roy, 1967).Based on the output of One-Sample Kolmogorov- Smirnov Test (Chakravart, Laha & Roy, 1967), the value of the variable Asymp. Sig for knowledge sharing culture was 0.54. In accordance with the basic decision making in the normality test, the value Asymp. Sig for all variables were greater than 0.05, and it was therefore concluded that the data on knowledge sharing culture was normally distributed. According to Statistics How To (2018), Kaiser-Meyer- Olkin statistics helps to measure the adequacy of sampling for every variable used in model employed in a study. Those with values ranging in the region between 0.8 to 1 should be indicative that the sampling is adequate. However, those generating KMO values of less than 0.6 should indicate inadequacy of the sampling and by extension remedial action should be instituted by the researcher. Knowledge sharing culture dimension had a KMO extraction figure of 0.877, which implied that the sample used by the study were largely adequate in depicting the most critical attributes of the study population.

Content validity of the study was ensured through a review of theoretical and empirical literature to identify knowledge sharing culture. In addition, the items and questions employed by the researcher had to cover the full range of issues and even the attitudes that were being measured (Kumar, 2011). Construct validity, on the other hand, was determined by ascertaining the contribution of each variable of the study to the total variance observed and it was resolved that the greater the variance of a particular variable the higher the validity (Kumar, 2011). Lastly, concurrent validity was ascertained if the scale used in the study discriminated those who took part in the survey and were deemed to
be different, they were therefore looked upon to register different scores on the instrument utilized. Knowledge sharing culture had a Cronbach’s Alpha score of 0.917 with 17 items, in addition to a mean of 69.29 and a standard deviation of 11.54. The researcher therefore resolved to proceed with further analysis since the measures met the minimum requirement of 0.7 and were therefore acceptable.

Survey research design was used for the study because speeds up collection of field data by making explicit the unique features of a large population of individuals from a small group of individuals (Creswell, 2014). The target population were the 167-family owned MSMEs in Migori County. The researcher settled on family owned MSMEs that had been in business for over 10 years since they could easily avail pertinent information due to their longevity in service and understanding required by the study. The sum of family owned MSMEs was 167 who comprised owner and employed managers. A sample estimation relationship was adopted for use as put forward by Yamane (1967). At 95% confidence level, 118 respondents were targeted. The sample of 118 represented 70.66 percent of the initially targeted population. Data was analyzed using descriptive and inferential statistical techniques. Descriptive statistics were employed to generate summaries for the survey data (Sang, 2015) and included generation of means and standard deviations of knowledge sharing culture. The effect of knowledge sharing culture on non-financial performance of family owned Micro, Small and Medium Enterprises in Migori County was determined using inferential statistics.

4. Results and Discussion

Knowledge sharing culture was measured using the dimensions of processes, technology, rewards, collaboration and openness. Processes were captured through contents checked for quality, institutionalized knowledge from previous projects, teams submitting reusable contents to repositories, and, processes integrated with standardized business processes in a transparent manner. The presence of technology in the family firms sampled was manifested in information flows being automated, ICT infrastructure being user friendly, firm’s data that was updated regularly, and, staff manifesting happiness with existing IT systems. As for rewards, three manifestations were captured, one was availing rewards for desirable knowledge behaviors, another was demonstration of knowledge sharing as a requirement for promotion, and, idea bases to gauge pay as per contribution. Collaboration was manifest when knowledge holders could be easily reached, exemption of pressure from knowledge holders, and, discouragement of barriers to accessing knowledge. The results in Table 1 below revealed that on a Likert scale of 1 to 5 (1 for completely disagree and 5 for completely agree) the means for knowledge sharing culture ranged between 3.996 and 4.240. The actual means were 4.077, 4.023, 4.062, 3.996 and 4.240 respectively for processes, technology, rewards, collaboration and openness. Accordingly, the means revealed that openness was the most practiced knowledge sharing culture aspect, followed by the processes that were initiated by the organizations. At third place in prevalence, was rewards and at fourth place was technology. The least practiced aspect of knowledge sharing culture was collaboration. Since all these manifestations of knowledge sharing culture were averagely 4, it therefore indicated that respondents were unanimous in opinion that a cultures of sharing knowledge were well embedded in the family firms of the respondents.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>t</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processes</td>
<td>75</td>
<td>4.077</td>
<td>0.812</td>
<td>50.509</td>
<td>74</td>
<td>0.000</td>
</tr>
<tr>
<td>Technology</td>
<td>75</td>
<td>4.023</td>
<td>0.756</td>
<td>44.741</td>
<td>74</td>
<td>0.000</td>
</tr>
<tr>
<td>Rewards</td>
<td>75</td>
<td>4.062</td>
<td>0.788</td>
<td>48.500</td>
<td>74</td>
<td>0.000</td>
</tr>
<tr>
<td>Collaboration</td>
<td>75</td>
<td>3.996</td>
<td>0.859</td>
<td>47.153</td>
<td>74</td>
<td>0.000</td>
</tr>
<tr>
<td>Openness</td>
<td>75</td>
<td>4.240</td>
<td>0.744</td>
<td>42.199</td>
<td>74</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 1: Descriptive Statistics for Knowledge Sharing Culture of Family Firms in Migori County

Source: Survey Data (2018)

The data also revealed that the dispersion of knowledge sharing culture opinions was all below one. In particular, the standard deviations were 0.812, 0.756, 0.788, 0.859 and 0.745 respectively for processes, technology, rewards, collaboration and openness. It therefore indicated that the variations of the measures from the mean were all below one standard deviation and therefore the spreading out of respondents’ opinions were not so widespread from each other for virtually all respondents. Moreover, a One-sample t-test with a theoretical test value of zero (no significant difference expected in the mean scores) was conducted to establish whether knowledge sharing culture measures had different manifestations from one family firm to another (see Table 1) and it implied that knowledge sharing culture mean score measures differed significantly from one family firm to the other, with the highest difference being noted in processes involved in knowledge sharing culture (t-value= 50.509, p < 0.05), followed by rewarding of knowledge sharing (t –value= 48.500, p < 0.05). The lowest statistical difference was manifest in openness with respect to sharing of the firm knowledge (t-value= 42.199, p < 0.05).

To assess the effect of prevailing cultures of knowledge sharing on family firms’ non-financial performance, the study formulated a null hypothesis with the assumption that knowledge sharing culture had no effect on non-financial performance of family owned Micro, Small and Medium Enterprises in Migori County, Kenya. To test for this hypothesis, the mean values of knowledge sharing culture were linearly regressed against the aggregate mean score of non-financial performance using simple linear regression method and the results of the analysis were as shown in Tables 2, 3 and 4 below.
The results in Table 2 above revealed that the value of $R^2$ was 0.782. This therefore indicated that knowledge sharing cultures accounted for up to 78.2% of the variabilities arising out of family owned Micro, Small and Medium Enterprises’ non-financial performance, leaving out a further 21.8% to be accounted for by other variabilities not fitted into the model. It was therefore concluded that that it is possible to generate very high levels of non-financial performance in family owned Micro, Small and Medium Enterprises if levels of adoption of knowledge is enhanced in in the family firms. 

$R^2$ is the coefficient of determination (Higgins, 2005) and summarizes how much the variability in the outcome variable is related to predictor variables.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.347</td>
<td>.239</td>
<td>1.455</td>
<td>.150</td>
</tr>
<tr>
<td>Knowledge Sharing Culture</td>
<td>.933</td>
<td>.058</td>
<td>.884</td>
<td>16.160</td>
</tr>
</tbody>
</table>

Table 3: Coefficients for Knowledge Sharing Culture of Family Firms in Migori County 
Source: Survey Data (2018)

A simple regression equation that may be used to estimate non-financial performance of a family owned Micro, Small and Medium Enterprise in Migori County, Kenya given its existing knowledge sharing culture was expressed as follows: 

$$NFP = 0.347 + 0.884 \times KSC + \epsilon$$

Where; $NFP =$ Non-Financial Performance and $KSC =$ Knowledge Sharing Culture.

The equation above showed that knowledge sharing culture had a coefficient ($\beta_0$) of 0.884. This, therefore, meant that a unit change in knowledge sharing culture would result in an 88.4% positive improvement in non-financial performance of the family firms in Migori County, Kenya. The t-statistic and corresponding p-value were t-value = 16.160 and p value= 0.000 respectively. On that basis therefore, at 5 percent level of significance, the null hypothesis was consequently rejected, and it was concluded that encouraging of vibrant cultures of knowledge sharing had a positive and statistically significant relationship with non-financial performance of family owned Micro, Small and Medium Enterprises in Migori County, Kenya. 

Analysis of variance test results in the Table 4 above illustrated the overall significance for the regression model. The linear regression F-test result was significant at 5% level of significance ($F (1,73) = 261.144, p < 0.05$). It was therefore concluded that the model that was developed to explain knowledge sharing cultures and non-financial performance of family firms was statistically significant. The findings of this study were largely supportive of earlier cited works which were of the position that for there to be knowledge sharing culture, institutionalized processes (Haloway, 2016, Mac Alister, 2016 & Garfield, 2017), technology (Gaefield, 2017), rewards (Alhousary &Underwood, 2016), collaboration and openness and trust by both management and employees (MacAlister, 2016) need to be inculcated in the firms. These findings were also supported by Smith & McKeen (2015) who concluded that instilling of a knowledge sharing culture leads to many pieces of solutions due to the interconnectedness of the ideas within the organization. The ultimate result is
that significant barriers to creating knowledge are dispelled with hence knowledge assets can be leveraged. The findings were also supported Noor, Ah and Idris (2017) who showed that a knowledge sharing collaborative culture with the right leadership leads to improved nonprofit effectiveness.

5. Conclusion
Since knowledge sharing culture was found to be statistically significant in influencing family owned Micro, Small and Medium Enterprises Non-financial performance, it is imperative that family owned Micro, Small and Medium Enterprises should enhance processes geared at knowledge sharing, adoption of vibrant technologies, availing rewards, collaboration and openness for enhanced knowledge sharing leading to higher non-financial performance. The study recommends that family owned Micro, Small and Medium Enterprise leadership leverage strategic knowledge management practices to achieve enhanced non-financial performance levels. Despite being recognized in literature that knowledge management has a great role on financial performance the relationship to non-financial performance has largely been unexplored. Family owned Micro, Small and Medium Enterprise managers need to foster processes aimed at knowledge sharing, improving technology, encouraging a vibrant reward system, collaboration with relevant stakeholders, and, being seen to be open enough to facilitate knowledge flow.

6. References


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