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Role of Knowledge Sharing Cultures on Competitive Advantage: A Review of the Non-Financial Dimension

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Abstract:

On the basis of the resource-based view, the effect of knowledge sharing cultures on organization's non-financial performance is explored. I argue that the valuable, rare, inimitable, and non-substitutable knowledge in an organization, not only benefits a firm from a financial sense, but also from a non-financial sense – thereby helping it achieve competitive edge over its competition. By drawing on previous literature, a persuasion is extended that non-financial performance in an organization, to a greater extent, depends on its non-financial performance. A survey of 75 family firms in Migori County, Kenya is carried out using both simple random and stratified sampling techniques. Data is analyzed by inferential statistics- to test the hypothesis that knowledge sharing culture has no significant effect on non-financial performance. Findings reveal that knowledge sharing culture ($\beta = 0.884$, $p < 0.05$) has a positive and statistically significant effect on non-financial performance. The practical implication is that top management should promote cultures of knowledge sharing through organizational processes, technology, collaboration and openness. Theoretically, credence is given to the resource-based view since valuable, rare, inimitable and non-substitutable knowledge resources are associated with significantly enhanced levels of non-financial performance

Keywords: Knowledge sharing, non-financial performance, competitive advantage

1. Introduction

The relationship existing between sharing in firms and its effect on performance has attracted considerable interest in the past decade. A number of studies have investigated aspects of this relationship using different dimensions (Gurteen, 1999; Skyme, 2002; Ohioyenoye & Iyama, 2015; Hussain et al., 2015; Marouf, 2016; Holloway, 2016). Moreover, a number of studies have supported the assertion that knowledge sharing mediates other variables and their relationship with management of knowledge in firms (Al Kurdi, Ghoneim & Al Roubaie, 2015). What has not been left in doubt, however, is that knowledge sharing does associate with significantly positive levels of financial performance (Ohioyenoye & Iyama, 2015; Marouf, 2016 & Holloway, 2016). Apparently, the relationship between sharing in firms and non-financial performance has received little attention from previous studies.

According to Maroun (2017), the use of non-financial information in an organization's reporting has the potential to maximally spur information transparency; thereby translating to benefits not only for that particular organization, but also for other organizations. Increasingly, the significance of non-financial has been much highlight in proactive enterprises, in which investors are studying the non-financial aspects of the various enterprises to arrive at their investment decisions (Ernst & Young, 2017). Indeed, a recent study by Ernst and Young (2017), highlights the major significance of the information for users by pointing out that 68% of investors acknowledge the use of such reports in reaching their investment decisions.

Prior studies have identified several knowledge-sharing culture indicators in organizations. For instance, processes in organizations to facilitate sharing of knowledge (Holloway, 2016; Janus, 2016; Mac Alister, 2016 & Garfield, 2017). Another aspect is openness, trust and freedom by both management and employees - in an attempt to share organization specific knowledge (Mac Alister 2016; Ni, Cui, Sang, Wang, & Huang, 2016). By the same token, there is reward and recognition for knowledge sharing (Alhousary & Underwood, 2016; Holloway, 2016; Garfield, 2017). Besides, there is recognizing employees' work (Zhang & Ng, 2012; Arriagada & Alarcón, 2014; Garfield, 2017). Still, another indicator - and one that is appearing to overtake all other indicators - is technological (Holloway, 2016; Garfield, 2017). Clearly, technology has, of late, become the major route through which sharing is permitted in most organizations (Garfield, 2017).

Marouf (2016) empirically investigated the role played by knowledge sharing culture in organizational performance using a survey comprising of 120 respondents selected randomly from companies in Kuwait. 392 valid responses were collected by the researcher. To test the results, structural equation modelling was employed. Analysis is done by use of SPSS and LISREL software. Findings revealed that knowledge sharing does, indeed, mediate the relationship between sharing culture on the enhancement of business performance. Secondly, that knowledge management strategy

and human resource strategy generate a positive and direct effect on knowledge sharing. Nonetheless, whereas the study revealed a useful relationship underpinning knowledge sharing and business performance, the concept of business performance is too broad.

The resource-based view theory (Wernerfelt, 1984; Barney 1986 & Conner, 1991) stresses the important role played by a firm's resources and its net effect on an organization's performance level. According to the theory, an organization's competitive advantage can, for the most part, be realized and sustained upon exploitation of the resources that are particular to the firm. Moreover, the resources should be principally those that are rare to find; characteristically quite valuable; not easy to imitate with ease; not tradeable for another; and, non-substitutable - which therefore makes them unique to the particular organization. The organization, in turn, exploits these characteristics to their advantage (Barney, 1999).

On the basis of the theory, an organization's capacity at achieving competitive advantage (Abdulahi, Kwon & Moon, 2012) is enhanced when the unique capacities and resources in their reach are organized in a manner that makes it hard for them to be copied by rival businesses. The hardship in imitating a firm's capacities leads to a barrier of competition (Mahoney & Pandian, 1992). The theory therefore supports the establishment of sharing culture of knowledge activities in the business set up to enable the organization to benefit from their valuable, often rare, mostly inimitable and non-substitutable knowledge - which is essentially different from other firms' knowledge for the organization's benefit - leading to them outperforming their competitors (Barney, 1999).

2. Method

Reliability of scores is achieved by ensuring that the measures used to ascertain the attributes of a variable adhere to authoritative beliefs from previous studies and usage. The measures used cohered with known theoretical concepts, and not reflecting other phenomena not intended for the study. Internal consistency reliability is determined in terms of average inter-item correlation, average item-to-total correlation, or more commonly known as Cronbach's alpha (Bhattacharjee, 2012). If the coefficients are high, the better will be the measuring instrument. There are different reports about the acceptable values of alpha for different studies; however, values ranging from 0.70 to 0.95 will be considered acceptable (Nunally, 1994, Bland, 1997, De Vellis, 2003). Table 1 presents the reliability test results of the study by identifying the variable, its Cronbach alpha, number of items and scale statistics.

Variable	Cronbach's Alpha	N of Items	Scale Statistics	
			Mean	Std. Deviation
Knowledge Sharing Culture	0.917	17	69.29	11.54
Non-Financial Performance	0.955	20	83.07	14.43

Table 1: Reliability Test Results
Source: Research Data (2019)

Table 1 indicates that knowledge sharing culture has 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. Non-financial performance has a Cronbach's Alpha score of 0.955 with 20 items, in addition to a mean of 83.07 and a standard deviation of 14.43.

Non-financial performance is assessed using a set of five measures namely customer satisfaction, customer retention, employee satisfaction, product quality, and service quality. Table 2 presents the non-financial performance dimensions, the number of respondents involved, means, standard deviations, t- values, degrees of freedom, and the accompanying p-values.

Dimensions	N	Mean	Std. Dev	t	df	Sig. (2-tailed)
Customer Satisfaction	75	4.133	0.709	50.509	74	0.000
Customer Retention	75	4.150	0.803	44.741	74	0.000
Employee Satisfaction	75	4.183	0.747	48.500	74	0.000
Product Quality	75	4.207	0.773	47.153	74	0.000
Service Quality	75	4.093	0.840	42.199	74	0.000

Table 2: Descriptive Statistics for Non-Financial Performance
Source: Survey Data (2019)

Based on Table 2, the means for non-financial performance vary between 4.093 and 4.183. The actual means are 4.133, 4.150, 4.183, 4.207, and 4.093 respectively for customer satisfaction, customer retention, employee satisfaction, product quality, and service quality. Clearly, the means reveal that product quality is the most predominant non-financial aspect in the respondents' firms, followed closely by employee satisfaction. However, the least in prevalence is service quality. In summary, since all the measures of non-financial performance are slightly above 4, it follows therefore that respondents are generally of the opinion that non-financial performance are well embedded in their enterprises.

Moreover, a one-sample t-test with a theoretical test value of zero (no significant difference expected in the mean scores) is conducted to establish whether non-financial performance measures vary from one family owned firm to another. The results support the persuasion that non-financial performance mean score measures differ significantly from a respondent's firm to the other. Clearly, the highest difference is noted in customer satisfaction (t-value = 50.509, $p <$

0.05), followed by customer retention (t-value = 44.741, $p < 0.05$). The lowest statistical difference is occasioned in service quality (t-value = 42.199, $p < 0.05$).

Knowledge sharing culture is assessed using a set of five measures namely processes, technology, rewards, collaboration, and openness. Table 3 presents the knowledge sharing culture dimensions by showcasing the number of respondents participating, the averages, standard deviations, t- values, degrees of freedom values, and the accompanying probability values.

Dimensions	N	Mean	Std. Dev	T	df	Sig.(2- tailed)
Processes	75	4.077	0.812	50.509	74	0.000
Technology	75	4.023	0.756	44.741	74	0.000
Rewards	75	4.062	0.788	48.500	74	0.000
Collaboration	75	3.996	0.859	47.153	74	0.000
Openness	75	4.240	0.744	42.199	74	0.000

Table 3: Descriptive Statistics for Knowledge Sharing Culture
Source: Survey Data (2019)

Table3 reveals that the means for knowledge sharing culture range between 3.996 and 4.240. In particular, the means are 4.077, 4.023, 4.062, 3.996, and 4.240 respectively for processes, technology, rewards, collaboration, and openness. Manifestly, the means reveal that openness is the most practiced aspect in the respondents' firms, closely followed by processes initiated by the establishments. At third place in prevalence is rewards and at fourth place is technology. The results also reveal that the least practiced aspect of knowledge sharing culture in respondents' organizations is collaboration. Since all the manifestations of the variable in the organizations are averagely 4 it therefore indicates that cultures of sharing knowledge are well embedded in their firms.

Accordingly, a one-sample t-test with a theoretical test value of zero (no significant difference expected in the mean scores) is conducted to establish whether knowledge sharing culture measures have different manifestations from one family firm to the other. The results reveal that knowledge sharing culture mean score measures differ significantly from one firm to the other, with the highest difference manifesting in processes involved in knowledge sharing culture (t-value = 50.509, $p < 0.05$). Next, is rewarding of knowledge sharing (t-value = 48.500, $p < 0.05$). The lowest statistical difference is manifest in openness with respect to sharing of the firm's knowledge (t-value = 42.199, $p < 0.05$).

Drawing from the study objective, the null hypothesis is stated as $H_0: B_1 = 0$ and model 1 is used. The null hypothesis H_0 is rejected if p- value ≤ 0.05 , otherwise it is not rejected at 5% significance level.

The regression model for the relationships is expressed as in the following equations:

$$NFP = \beta_0 + \beta_1 KSC + \beta_2 MIC + \beta_3 KC + \epsilon$$

Where:

KSC = Knowledge Sharing Culture

Table 4 presents the hypothesis test results and the statistical model employed by the study on the relationship between knowledge sharing and non-financial performance.

Hypothesis	Hypothesis Test and Decision Rule ¹	Statistical model
$H_0:1$	$H_0: \beta_1 = 0$ $H_A: \beta_1 \neq 0$ Reject H_0 if p-value ≤ 0.05	$NFP = \beta_0 + \beta_1 KSC + \beta_2$ $MIC + \beta_3 KC + \epsilon$
¹ Significance 5%		

Table 4: Hypotheses Test and Statistical Models
Source: Researcher (2019)

Survey research design is used for the study. Survey facilitates rapid turnaround in data collection by identifying attributes of a large population from a small group of individuals (Creswell, 2014). In particular, cross sectional survey design is employed. Cross sectional design is best suited to studies aimed at finding out the prevalence of a phenomenon, situation, problem, attitude or issue, by taking a cross-section of the population (Kumar, 2011).

Table 5 presents the coefficients of knowledge sharing culture. It displays the unstandardized coefficients and standardized coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.107	0.208		-0.515	0.608
	Knowledge Sharing Culture	0.490	0.095	0.464	5.151	0.000

Table 5: Coefficient of Knowledge Sharing Culture Coefficients^a

Results of multiple regression analysis in Table 6 reveals that knowledge sharing culture has a p-value of 0.000 ($B = 0.464$). At $\alpha = 0.05$, $p < 0.05$. Since $p < 0.05$, the coefficients are deemed statistically significantly different to 0 and the null hypothesis is consequently rejected. It is therefore concluded that knowledge sharing culture has a statistically significant effect on non-financial performance

3. Conclusions

Since knowledge sharing culture statistically and significantly affects non-financial performance it follows, therefore, that organizational processes geared at knowledge sharing, adoption of vibrant technologies, availing of rewards, collaboration, and openness for enhanced knowledge sharing are associated with significant levels of non-financial performance.

The industry implication is that top management in organizations should promote cultures of knowledge sharing through improved organizational processes geared at discovering improved products. Besides that, relevant and modern technology should be used in knowledge share fairs and exhibitions. Moreover, rewards should be availed to knowledge sharing attempts, collaboration should be encouraged and openness should be the key issue of focus in regards to knowledge sharing.

Theoretically, the study gives credence to the fact that the valuable, rare, inimitable and non-substitutable knowledge resources shared by a firm's workforce, have the potential to contribute to significantly enhanced levels of non-financial performance. Accordingly, the resource-based view is supported.

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