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Management of Knowledge in Firms and Competitive Advantage: A Review of the Non-Financial Performance Dimension

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Abstract:

The relationship existing between management of knowledge in firms and the resulting competitive advantage has been a subject of intense research in the last few decades. More and more studies have found efforts at managing knowledge in firms to yield significant upturns in their performance levels. Ironically, a closer look at the performance implied by a significant percentage of previous studies is, little else but, financial performance. Pointedly, a number of studies show that non-financial performance is, for the most part, a contributor to improved financial performance. I argue that non-financial performance also merits investigation with respect to the manner in which management of knowledge by an enterprise impacts it. A survey of 75 Micro, Small and Medium Enterprises is instituted, consisting of family firms in Migori County, Kenya. Findings reveal that management of knowledge by enterprises has a positive and statistically significant effect on the enterprises non-financial performance. On the theoretical front, the study gives credence to the fact that 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, hence their competitive edge. Besides, the resource based view is supported to lead to enhanced competitiveness by firms. On the practical front, the study makes a mark on the debate on the factors triggering competitive edge in affirm by showing that improved non-financial performance in organizations is associated with the role played by management of knowledge.

Keywords: Knowledge management, non-financial performance, competitive advantage, family firms

1. Introduction

Grey (1996) asserts that knowledge management is none, other than a collaborative and integrated approach to the creation, capture, organization, access, and use of an enterprise's intellectual assets. Brooking (1999), however, contends that knowledge management is as a process in which human centered assets are managed, with the aim of guarding and leveraging knowledge held by members of the workforce; with the ultimate objective of transferring the knowledge into a form that can be shared by more organizational members. More broadly, Abell and Oxbrow (2001) contend that knowledge management is all about creation and management of a knowledge environment to encourage knowledge creation, sharing, learning, and eventually utilization of the knowledge for a firms' competitive gain. But, despite all the aforementioned viewpoints on management of knowledge, De Brún (2005) avers that knowledge management is about the application of the collective knowledge of the entire firm's workforce to achieve specific organizational goals. In contrast, Nonaka and Takeuchi (1995) regard knowledge management as the capacity of a firm to create new knowledge, be in a position to disseminate it in the firm, and embrace it in their product offerings.

The conceptualizations raise a lot of issues regarding management of knowledge in firms. For instance, regarding application to work related activities (De Brún, 2005; Abell & Oxbrow, 2001; Nonaka & Takeuchi, 1995), a number of schools of thoughts agree that knowledge is needed to spur and promote activities at the firm that are knowledge related. Besides, a number of propositions share the understanding that knowledge ought to be created in the organization (Abell & Oxbrow, 2001; Nonaka & Takeuchi, 1995; Skyrme, 1997; De Brún, 2005). Naturally, therefore, the concurrence is that organizational knowledge needs to be shared (Abell & Oxbrow, 2001; Brooking, 1999; Abdul et al., 2008). Moreover, it is also believed that knowledge should be managed to improve organizational performance and the competitiveness that it brings forth (De Brún, 2005; Abell & Oxbrow, 2001; Nonaka & Takeuchi, 1995).

It follows therefore that knowledge management are a systematic approach aimed at maximizing the generation; sharing of knowledge resources; using the knowledge to support organizational learning; resilience; and ultimately the performance of an organization (Janus, 2015). Knowledge management should, in addition, be visualized in the context of involving strategies and processes crafted by the organization to identify intellectual assets, capturing them, structuring them, valuing them, leveraging them, and sharing of an organization's intellectual assets to enhance its performance and

competitiveness (The Business Dictionary, n. d). The summative argument, therefore, is that knowledge management practices should be visualized as deliberate attempt and systematic coordination of a firm's people, the technologies at play, processes involved, and structures - with a view to adding value through sharing, management of intellectual assets and creation of knowledge. In this study, cultures of knowledge sharing, management of intellectual capital and knowledge creation in organizations characterize management of knowledge in organizations.

Management of knowledge resources in organizations to improve performance has generated intense debate in the last decade (Omotayo, 2015; Ferraris, Santoro & Dezi, 2017; Giampaoli, Ciambotti & Bontis, 2017; Inkinen, 2016). Majority of world economies are slowly but surely turning out to be knowledge based as time goes (Omotayo, 2015), there is, therefore, a need to rethink of the benefits that can accrue to firms given the input of knowledge. Moreover, a number of studies have linked management of knowledge to improved organizational outputs (Omotayo, 2015; Giampaoli, Ciambotti & Bontis, 2017; Kinyua, 2015). Increasingly, a significant number of studies are revealing that a well-coordinated, organization-wide management of knowledge is a critical ingredient for enterprises that are keen on exploiting sustainable strategic competitive advantage over their competition (Shujahat, Hussain, Javed, Malik, Thurasamy & Ali, 2017).

In 2015, Kinyua conducted a study in Kenya that established that knowledge management in commercial banks greatly improves their performance. The previous studies have, however, greatly focused on performance - which is undoubtedly financial in nature (Kinyua, 2015; Omotayo, 2015). A study on the relationship between management of knowledge in organizations and non-financial performance, therefore, remains critical to uncovering the nature of the relationship between the two constructs. Undoubtedly, non-financial performance continues to be proven as a key influencer of financial performance (Malgharni et al., 2010).

In an empirical study in Italy by Giampaoli, Ciambotti and Bontis (2017) on the interconnectedness between knowledge management practices at play in organizations and knowledge management - in comparison to their performance - reveal that managing knowledge in organizations greatly improves their financial performance. A study was, nonetheless, conducted by Omotayo (2015) on the relationship between knowledge management in firms and their performance; it revealed that organization's survival and enhanced profitability is a fundamental end product of knowledge management.

Non-financial performance measures comprise of variables such as customer satisfaction, job satisfaction, management control systems, and others that are not captured by financial systems (Malgharni et al., 2010). Non-financial performance measures in the current study are customer satisfaction, customer retention, employee satisfaction, employee retention, product quality, and service quality.

The current study is guided by the resource based view theory (Barney, 1991; Conner, 1991). The resource based view theory originated in the late 20th century and has its roots in the works of Wernerfelt (1984), Barney (1986) and Conner (1991). The theory emphasizes on the critical role of the valuable, rare, inimitable, and non-substitutable resources that exists in firms. According to resource based view school of thought, once a firm boasts of the valuable, rare, inimitable and non-substitutable resources, then it can enjoy competitive advantage over its competition (Barney, 1999). The resource based view theory therefore advocates for the establishment of a culture of knowledge sharing in firms (Tsui, 2017; Noor, Ah & Idris, 2017; Masa'deh, Obeidat & Tarhini, 2016). The resource based view proponents argue that if valuable knowledge is shared, then there is bound to be an improvement in output, which ultimately translates into improved non-financial performance (Malgharini, 2012). Naturally, therefore, the rare knowledge in the particular firm, can be exploited optimally before competitors exploit it to their advantage. Besides, the non-imitable and non-substitutable knowledge by the firm can be used to add to its competitiveness (Mahoney & Pandian, 1992; Kinyua, 2015). The theory also explains management of intellectual capital in organizations, since by developing intellectual capital - attempting to secure it, and striving at having particular intellectual capital - the firm can position itself strategically with the potential at initiating and surviving industry competition with considerable ease (Kinyua, 2015).

A significant number of studies reveal the significant role played by non-financial information for investors in different firms. In fact, studies reveal that as much as 68% of investors base their investment decisions purely on non-financial reports of companies. Moreover, the use of non-financial information for companies reporting has been shown to maximally improve information transparency which, in turn, translates into benefits for the stakeholders. Yet, in spite of this reality, few studies have attempted to investigate the relationship between knowledge management and non-financial performance.

2. Method

Survey research design is used for the study. In particular, cross sectional survey research design with a target population of 167 respondents is used, thereby yielding a sample of 118 respondents. Data is collected by structured questionnaires. The questionnaires are administered to owner and employed managers.

The study variables comprise of both knowledge management practices and non-financial performance. Knowledge management practices are characterized by knowledge sharing, management of intellectual capital and knowledge creation. Table 1 shows the means and standard deviations of the variables.

	Mean	Std. Deviation	N
Non-Financial Performance	4.15	0.76	75
Knowledge Sharing Culture	4.08	0.68	75
Management of Intellectual Capital	4.28	0.84	75
Knowledge Creation	4.15	0.66	75

Table 1: Descriptive Statistics

The results in Table 1 reveal that management of intellectual capital has the highest mean followed by non-financial performance, and the least mean is manifest in knowledge sharing culture. Clearly, the means for financial performance, knowledge sharing, management of intellectual capital, and knowledge creation are 4.15, 4.08, 4.28, and 4.15 respectively. It therefore implies that most respondents agreed with the presence of the constructs in their firms.

A model summary is sought, depicting R, R square, Adjusted R and the standard error of the estimate. Table 2 shows the model summary for the study.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.927 ^a	0.858	0.852	0.275016

Table 2: Model Summary

a. Predictors: (Constant), Knowledge Creation, Management of Intellectual Capital, Knowledge Sharing Culture

Arising from Table 2, the adjusted R² is 0.852. This implies that 85.2% of the variances in the non-financial performance posted are explained by a combination of knowledge sharing culture, management of intellectual capital and knowledge creation. The rest of the variances are explained by factors not fitted into the model.

Analysis of Variance Results Table is sought showing both the F and probability value. Table 3 presents the ANOVA Table.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.562	3	10.854	143.506	0.000 ^b
	Residual	5.370	71	0.076		
	Total	37.932	74			

Table 3: Anova^a

a. Dependent Variable: Non-Financial Performance

b. Predictors: (Constant), Knowledge Creation, Management of Intellectual Capital, Knowledge Sharing Culture

The ANOVA results displayed in Table 3 indicate a statistically significant relationship between knowledge management practices and non-financial performance. The F-test results (3,75) = 143.506 is positive and significant at p value of 0.000 < 0.05. Therefore, the null hypothesis is rejected and it is concluded that there is a statistically significant association between knowledge management practices and non-financial performance

To test the hypothesis that knowledge management has no significant effect on non-financial performance, a coefficients Table of results is presented in Table 4.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-0.107	0.208		-0.515	0.608	-0.523	0.308
	Knowledge Sharing Culture	0.490	0.095	0.464	5.151	0.000	0.300	0.679
	Management of Intellectual Capital	0.001	0.066	0.002	0.022	0.983	-0.130	0.133
	Knowledge Creation	0.544	0.092	0.502	5.888	0.000	0.360	0.728

Table 4: Coefficients^a

a. Dependent Variable: Non-Financial Performance

The results in Table 4 indicate a multiple linear regression of knowledge management practices and non-financial performance is expressible as shown hereafter.

$$NFP = -107 + 0.490 KSC + 0.001 MIC + 0.544 KC + \varepsilon$$

The regression equation expressed above indicates that holding knowledge sharing culture, management of intellectual capital and knowledge creation to a constant zero, then non-financial performance would be at -10.7 percent. A unit change in knowledge sharing culture would yield a 49% change in non-financial performance. Besides, a unit change in management of intellectual capital would alter non-financial performance by 0.01%. Moreover, a unit change in knowledge creation would alter non-financial performance by 54.4%. The study further shows that the aggregated index of knowledge management practices is significant, hence indicating that all variables have a significant effect on non-financial performance.

3. Conclusions

Firstly, 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. Secondly, since management of intellectual capital positively and statistically significantly affects family MSMEs non-financial performance it follows, therefore, that intellectual capital development, securing of intellectual capital and intellectual asset management are linked to significant improvements in non-financial performance. Thirdly, arising from the revelation that knowledge creation has a positive and statistically significant effect on non-financial performance it follows, therefore, that organizational attempts at socialization, externalization, combination, and internalization, should subsequently ensure that tacit knowledge is converted to tacit, then to explicit; explicit to tacit; and lastly explicit to explicit. The end result for organizations is improved chances of significant levels of non-financial performance.

On the theoretical front, 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 to lead to enhanced competitiveness by firms. On the practical front, the study makes a mark on the debate on the factors triggering competitive edge in affirm by showing that improved non-financial performance in organizations is associated with the role played by management of knowledge.

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