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First Order Analysis of Organisational Knowledge, Organisational Orientation and **Performance**

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Abstract:

The focus of this paper was to examine the first order moderating effect of organisational orientation on the relationship between organisational knowledge and performance of telecommunication firms. Data was gathered from 230 managers and other administrative and technical employees of the four major telecommunication firm in Nigeria, through the use of structured questionnaire. The hierarchical multiple regression was used to show this moderating effect. According to the results of this research, strong emphasis and attention should be placed on an organisation-wide culture of learning orientation, such as shared vision and open mindedness; entrepreneurial orientation, such as proactiveness, competitive aggressiveness and autonomy as influencers of organizational effectiveness; and market orientation, such as customer and competitors' orientation. The influence of these orientations on organizational knowledge and performance demands that managers instil behaviour in organisational members towards reflecting these orientations in their dealing with customers and across organisational functions.

Keywords: tacit knowledge; explicit knowledge; organisational knowledge; strategic orientation; firm performance

JEL Classification: M10: M20

Introduction

The concept of organisational knowledge was popularised by Drucker (1993), and there has been increased research interest in its understanding and application. The assertions of Jackson, Hitt and Denison (2003) and Kai, Wei and Meng-Lin, (2014) suggest that the greatest transformations in the twenty-first century business environment largely depend on the creation, exploitation and management of knowledge. Therefore, organisational knowledge creates a platform for business managers to re-engineer their business processes to become knowledge driven. An advantage of knowledge driven processes in organisations is that it places the organisation in a vantage point where values are delivered and competitors find it difficult to adopt/imitate the organisation's initiatives. According to Sbaffoni (2010) competitive advantage is a function of the organisation's ability to be innovative in its business processes; and innovation is driven by organisational knowledge (David and Foray 2003). Indeed, knowledge determines organisations' efficient utilization of every other resources (Omezerel and Gulez 2011).

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These view notwithstanding, the present state of the global business environment which is characterised by high levels of volatility, dynamism and turbulence requires managers to not only know- what and how, but to be versatile as to the application of existing organisational knowledge in driving firm performance. Such argument has not been sufficiently addressed in existing research. Consequently, managers are still in doubt about specific strategic organisational orientations that organisational knowledge should be aligned with, in a bid to enhance the firm's performance. Indeed, strategic organisational orientations portray the areas of deepest concern which firms perceive to enhance their operational processes and achieve effective and optimal performance. Therefore, strategic orientations shape firms' behaviour and determine their pattern of responsiveness of the changing business environments in which they operate. Based on this understanding managers are required to build up firms that are entrepreneurial, or innovative in their thinking about the creations of business models that are immersed in the knowledge, orientation and performance relationships. Consequently, this research is focused on contributing to existing knowledge in the fields of strategic and knowledge management about the relationships between organisational knowledge, organisational orientation and performance of firms.

1. Literature review

1.1. Organisational orientation and performance

Organisational orientation effectively relates with organisational performance because it determines the strategic directions of the organization (lederan, Curşeu, Vermeulen and Geurts 2013). Several empirical evidences on the study of strategic orientation and performance have shown mixed results. Liu and Fu (2011) studied strategic orientation in a holistic pattern across the entrepreneurial orientation, marketing orientation and learning orientation. Their studies aimed at explaining the inconsistencies in the results of strategic orientations under different circumstances. Therefore, the main line for their research examined the 'direct, moderating and mediating effect that occur among the constructs. Based on a list of selected criteria seven articles out of one hundred and one samples were selected for their study. The results showed that the relationship between strategic orientation and organisational performance in born global organisations showed either direct relationship or indirect relationship intervened by moderator and mediator.

The opinion of Choy and Mula (2008) was not too different from that of Liu and Fu (2011) as to the mixed evidences gathered from empirical studies on strategic orientation dimensions and performance. The work carried out by Choy and Mula (2008) utilised the Venkatraman (1989) typology of business level strategic orientation dimension over the performance of different geographical subsidiaries of a single multinational firm. The result of the study showed that some of these dimensions are dominant and that certain patterns of these dimensions associate closely with strong business performance. Abiodun and Ibidunni (2014) also supported variations in the results of strategic orientation dimensions when they tested the significant relationship between technology and strategic orientation dimensions. After engaging the Venkatraman (1989) dimensionality upon their hypothesis they found that differentiation and futurity strategy dimensions were marginally dominant in the managerial practices of the two banks studied. Futurity orientation was found not to be significantly related with most of the technology policy dimensions investigated. In addition, their results showed that technology could be used to foster defensive behaviours rather than enforcing a competitive edge.

As a means of viewing strategy design and implementation from the organisational and the business or market level, existing literature have discussed the relationship between strategic orientation and performance (Liao and Wu 2010). As such managers can better understand, adapt and strategize according to their organisational peculiarities and operating environments. Consequently, most strategy based authors describe strategic orientation based on entrepreneurial, market, learning, technological, innovation orientations and so on (Liu and Fu 2011). Therefore, this present research adopts this broader perspective by discussing three multidimensional organisational orientations, namely: entrepreneurial, learning and market orientations.

The propensity for organisations in transition economies to practice entrepreneurial orientation very often proves to be high. This is because of changes that demand them to become more competitive in their industry, the need to design proactive strategies, take risks and enhance their learning about contemporary business processes (Zhou, Yim and Tse 2005, Zhao, Li, Lee and Chen 2009). More so, in industries where change is happening fast and dynamism characterizes most business operations, organisations survive and stay competitive by exploring and exploiting opportunities and creating novelty. Thus entrepreneurial orientation serve as a viable part of their strategy process. According to Rauch, Wiklund, Lumpkin and Frese (2004), a meta analysis carried out to show the magnitude of relationship between entrepreneurial orientation and performance showed that the correlation

between them is moderately large, and internal and external organizational factors exist to moderate that relationship.

Although, innovation of organisations is valuable to staying competitive in the competitive and dynamic global business economy, yet there is the need for both small, medium and large organisations to continuously leverage on learning orientation to remain competitive in their industry (Eshlaghy and Maatofi 2011). Learning orientation can create enhanced performance in organisations through the expansion of knowledge which gives the organization and its members' awareness above that of competitors, creation of new ideas and processes for new product development. Thus strategic flexibility and prompt responsiveness are important characteristics of organisations which are given to learning orientation (Jiménez-Jiménez and Sanz-Valle 2011). With learning orientation, organisations are more sensitive to changing trends and opportunities in the market, than competitors. Evidences abound about the relationship between learning orientation and organizational performance. For example, Liao and Wu (2010) found that learning orientation stimulates organisations to be more innovative, thus enhancing their ability to create new products and identify better ways of carrying out business operations. Also, Calantone, Cavusgil and Zhao (2002) suggest the second order relationship between learning orientation and organisational performance.

More so, market orientation is an important part of organisational orientation that describes the extent to which organisations respond to customers' needs, competitors' strategic moves in the industry and how functional units of the organisation collectively function to achieve organisational objectives and higher performance. As part of its marketing orientation practices, organisations engage in continuous environmental scanning so that they can be proactive and design strategies that enhance their market-based competitiveness (Uchebulam, Akinyele and Ibidunni 2015, Balasundatam 2009). Hussain, Ismail and Akhtar (2015) showed a significant relationship between first and second order market orientation and organizational performance of small and medium enterprises. Besides, the relationship between market orientation and business performance was found significant among knowledge-intensive organisations (Protcko and Dornberger 2014).

1.2. Linking organisational knowledge, orientation and performance

Proponents of the Resource Based View of the firm identify that organisational intangible resources offer unique competitive advantages when they are differentiated and difficult to imitate (Barney 1991). Strategic management scholars identify an extension of the Resource Based View of strategy: the Knowledge Based View (Grant 1996). The Knowledge Based View suggests that within the scope of the knowledge economy, knowledge is considered as the most significant resource for firm competitiveness (Curado 2006, Hellebrandt, Heine, Schmitt 2018). Denicolai, Zucchella and Strange (2014) also identified the possibility of achieving firm competitiveness from knowledge applications on organisational physical assets. Abrahamson and Goodman-Delahunty (2014) asserted that effective knowledge utilization in organisation largely depends on specific support systems such as policies on information, strategies, structures and technology. Knowledge engage humans in a dynamic social process that shapes/creates a desirable future (Takeuchi 2013). Strategy is about creating a future, it may therefore, be implied that knowledge should be an issues of strategic choice in contemporary competitive business environment.

Knowledge engagement in business processes is considered a key variable in generating value and achieving enhanced performance (Martín-de-Castro, Delgado-Verde, López-Sáez and Navas-López 2011, Shujahat, Sousa, Hussain, Nawaz, Wang, Umer 2017). Linking organisational knowledge to performance requires business managers to identify their tacit and explicit forms of knowledge resources and strategically leveraging on them in business operations. Evidence from successful firms indicate that knowledge is a strategic resource for achieveing enhanced performance in complex business environment (Sharma and Mishra 2007, Fang, Wade, Delios and Beamish 2007). Meaning that, organisations perform excellently depending on the embodiment of what the organisational members know and what they do with what they know.

The importance of knowledge to organisational existence has been established. But organisations have a duty to tie-up knowledge resources and capabilities to their organisational strategy in order to achieve results that align with their business objectives (Ibidunni, Ogunnaike, Abiodun 2017). Competitive orientation plays a potentially influential role in connecting organisational knowledge with performance (Kim, Im and Slater 2013). Through competitive orientations, firms significantly create platforms that link their knowledge strategy to their external environment (Zhou and Li 2010). Competitive orientations represent the firm's strategic decisions over alternative means of achieving superior positions over its competitors. This is informed by pressures from the firm's competitors, technology, customers and overall environmental context (lederan, Curşeu, Vermeulen and Geurts 2013).

By implication, a firm's internal strategic knowledge capabilities and resources can successfully interact with its external environmental context given the intervention of the firm's competitive orientation. An example is the leverage of technological depth that firm's gain as they interact with their competitive environment and external technological and innovative environments. This means that, for example, have observed that knowledge about competitive areas of the firm and its environment can result in improved performance (Wiklund and Shepherd 2003). Lyles and Schwenk (1992) affirmed that business strategy is inseparable from organisational knowledge.

2. Methodology

The research study is descriptive in nature. The use of descriptive research design is validated by the fact that the population for the study is already established, and the research study attempts to describe the relationships among the variables included in the research (Jong and van der Voordt 2002) as a way of contributing to existing knowledge in the fields of strategic and knowledge management.

Therefore, the research question that relates to this design seeks to investigate a first order interacting effect of organisational orientation as a moderator of the relationship between organisational knowledge and performance of telecommunication firms in low technology economies, like Nigeria. Central to the theme of organisational knowledge and orientation in developing economies, such as Nigeria, is the telecommunications industry. This is because the telecommunication industry is knowledge driven and contributes significantly to the nation's economy, especially in terms of Gross Domestic Product (GDP) (National Bureau of Statistics 2016, Ogbo, Okechukwu and Ukpere 2012, Osabuohien and Efobi 2012). Survey method was adopted for the study because it gave the researcher the opportunity for gathering large number of sample respondents from the given population (Taylor, Sinha and Ghoshal 2014). More specifically, copies of well-structured questionnaires were used to collect data from the sampled respondents.

Measures

Questions about organisational knowledge of the firms were developed based on a typological scaling of knowledge: individual-tacit, group-tacit, individual-explicit, and group-explicit knowledge dimensions (Chilton and Bloodgood 2007, Fei, Chen and Chen 2009, Huang 2014). Items of organisational orientation of the firms included market orientation (Chao-Hung 2015); entrepreneurial orientation (Lumpkin and Dess 2001, Li, Huang and Tsai 2008); and learning orientation (Sinkula, Baker and Noordewier 1997, Calantone, Cavusgil and Zhao 2002).

This research work argued that a multidimensional approach to measuring organisational orientation is important in helping managers to have a more robust view of interactions between variables and arrive at more qualitative judgments in guiding the firm's strategic engagements. Items on organisational effectiveness as designed by Gold *et al.* (2001), Rehman, Asghar and Ahmad (2015) and Shiaw-Tong, May-Chiun, and Yin-Chai (2016) were used. Customers' satisfaction item was captured based on the firm employees' feedback from customers about their level of satisfaction with the organisations' products and services (Almossawi 2012).

Sampling

Managerial, technical and administrative employees of organisations in the Nigeria telecommunications industry form the population for this study. Specifically, four organisations in the GSM sub-market of the industry were included in this study. The GSM sub-sector is pivotal to the Telecommunication industry because it has the highest number of subscribers (98.07 per cent), thus serving as the major driver of growth in Nigeria's telecommunication industry. A total sample size of five hundred and four (504) managerial and other technical and administrative employees was determined for this research work.

Reliability and validity of the scale items

The reliability of the research items was ensured using the internal consistency method while the validity of scale items was carried out using construct validity. The Coefficient Alpha (α) is the most popularly used to measure internal consistency (Pallant 2005). The closer the value of α to 1, the more accepted the reliability of the data.

From the Table below, Pallant's (2005) bench mark of 0.7 scale reliability is fulfilled by most of the constructs. Therefore, the scale items were found to be reliable for the constructs of this research study. The combine reliability of all items in the research instrument gave a reliability statistic of 0.889, which also surpasses the benchmark. This study determined construct validity of the research items using the extent of convergence and discriminant validity among the items in each construct of the research study (Brown 2000). Whereas some literature identifies construct validity by using factor analysis to observe clustering of items, another way of determining this validity is to explore the degree of correlation among items of a construct (Weiner 2007, Pae 2012).

Table 1. Inter-Item Correlations of Scale Items

Variables	Mean	Std. Dev.	α	ITK	GTK	IEK	GEK	LO	EO	MO	CS	OE
ITK	2.2278	1.12968	0.878	1								
GTK	4.2438	.50805	0.738	.002	1							
IEK	3.9524	.65277	0.547	.078	.306**	1						
GEK	4.0019	.66113	0.785	.084	.664**	.234*	1					
LO	4.0263	.75189	0.870	013	.520**	.309**	.578**	1				
EO	4.0925	.49471	0.852	.069	.545**	.375**	.477**	.524**	1			
MO	4.2107	.49454	0.852	125	.590**	.174	.526**	.629**	.639**	1		
CS	4.1978	.57193	0.770	265*	.311**	.229*	.172	.348**	.222*	.342**	1	
OE	4.0402	.64008	0.873	049	.469**	.377**	.651**	.622**	.553**	.558**	.229*	1

Note: * Correlation is significant at the 0.05 level (2-tailed); **Correlation is significant at the 0.01 level (2-tailed).

The results showed in Table 1 reflect sufficient level of convergent among items of the same construct, thus validating convergence among the items. More so, the divergence conditions among the items of different constructs was also ensure by the uncorrelated results among items of different constructs.

3. Analysis and results

A total of two hundred and thirty (230) copies of questionnaire was retrieved from the organisational employees. The firms' employee base is largely dominated by female staff (31 respondents, or 68.9%) than their male counterpart (14 respondents, or 31.1%) out of which a total of 16 respondents (35.6%) are single while 27 respondents (60%) are married.

Most of the staff working with the firm have working experience ranging from six to ten years (33 respondents or 73.3%). A minute number of 11 respondents (24.4%) have spent five years and below working with the firm, while only 1 respondent (2.2%) has spent between eleven to fifteen years with the firm. This may imply that the firm has a weak employee retention strategy, and hence the organisational knowledge, especially tacit knowledge might not be sustainable over time since the carriers of such knowledge are not retained in the firm. Alternatively, the firm would be able to sustain its knowledge and establish a strong and competitive culture if it has mechanisms that capture knowledge of employees.

Results of Hierarchical Multiple Regression

Tables 2 consist of eight models that include the results of hierarchical multiple regression showing the interactions of first order organisational knowledge with first order Organisational Orientation and their linkages with organisational performance.

Table 2. Result of Hierarchical Multiple Regression (First Order Organisational Knowledge with First Order Organisational Orientation)

		Custome	r Satisfactio	on	Organisational Effectiveness				
	M1	M2	M3	M4	M5	M6	M7	M8	
Individuals' Demographic Variables									
Sex	.085	.104	.105	.373***	.002	.035	.008	594***	
Marital status	.096	.143	.170	019	085	035	031	.327***	
Work experience	125	103	019	.250**	048	029	.105	520***	
Age	.000	006	088	210*	087	032	090	.142**	
Position	.287**	.309***	.238**	.451***	.141	.170	.129	599***	
Education	.114	.112	.006	086	.054	.050	061	.235***	
Personal Income	057	007	010	005	076	.019	013	.024	
Organisational Demographic	Variables								
Nature of employment		.092	.012	253**		.286***	.071	.682***	
Firm size		131**	088	425***		129**	034	.680***	
Functional units		.082	.042	.143**		012	088	215***	
Individual-tacit Knowledge									
Explaining job steps			028	034			109***	.503***	
Writing down the procedures			062	270*			.045	.915***	
Individual-explicit Knowledge									

		Customer Satisfaction		n	Organisational Effectiveness			ness
	M1	M2	M3	M4	M5	M6	M7	M8
Personal trainings			007	.578*			.096**	-1.467***
Knowledge gained from			.156***	.874***			.058	-1.811***
journal and magazines			.130				.030	
Educational background			.038	.662***			083*	-1.572***
Group-tacit Knowledge								
Organizational culture			.091	029			.098	238***
Staff share experiences			.040	529***			.111	.462***
Shared experiences			.024	714***		,	006	.934***
Staff share stories of work			.055	293***			.061	.215***
Explain difficult work			.006	140			.080	063
processes			.000	140			.000	003
Group-explicit Knowledge								
Firm's knowledge base			.104	.635***			.170**	973***
Document personal			.015	.583***			.152***	917***
experiences			.015	.503			. 132	917
Interacting Effects								
ITKnRiskTaking				295				.073
ITKnAutonomy				2.699***				-6.667***
ITKnInterFunctionCoord				-2.156***				4.181***
IEKnCommitToLearning				.363*				100
IEKnOpenMindedness				-10.984***				23.334***
IEKnSharedVision				.395***				515***
IEKnInnovativeness				869***				2.307***
IEKnCustomerOrient				400				2.024***
IEKnInterFunctCoord				6.939***				-16.143***
GTKnOpenMindedness				11.004***				-23.369***
GTKnInterOrgKnowSharing				510**				1.539***
GTKnRiskTaking				294				.801***
GTKnProactiveness				187				.290***
GTKnCompetitiveness				.989***				-1.015***
GTKnAutonomy				-2.892***				7.009***
GTKnInterFunctCoord				-4.797***				12.258***
GEKnSharedVision				451***				.770***
GEKnInnovativeness				.342**				-1.137***
GEKnComptOrient				184**				.531***
R ²	.085	.123	.292	.500	.058	.160	.488	.866
ΔR^2		.038	.169	.207		.102	.328	.378
F	1.979*	2.061**	2.535***	2.824***	1.316	2.804***	5.853***	18.257***
Df	7	10	22	41	7	10	22	41

Note: *p ≤ 0.1, **p ≤ 0.05, ***p ≤ 0.01; M1 = Model 1, M2 = Model 2, M3 = Model 3, M4 = Model 4, M5 = Model 5, M6 = Model 6, M7 = Model 7, M8 = Model 8

Model 1 examined the influence of individuals' demographic factors on customer satisfaction. Only position in the organisation was found to influence customer satisfaction (β = 0.287, p ≤ 0.05). In model 2, organisational demographic variables were included into the block. At this levels, position in the organisation was found to influence customer satisfaction (β = 0.309, p ≤ 0.01); firm size was also found to influence customer satisfaction (β = -0.131, p ≤ 0.05). In model 3, individual-explicit knowledge was found to have significant influence on customer satisfaction. Statistically, the knowledge that employees gain from journals and magazines significantly impacts on their responsiveness towards customer satisfaction (β = 0.156, p ≤ 0.01).

Model 4, shows the moderating effect of organisational orientation on organisational knowledge and customer satisfaction. Individual-tacit knowledge, specifically employees' ability to write down procedures involved with their work, were found to significantly predict customer satisfaction (β = -0.270, p \leq 0.1). However, the negative influence implies that losing employees with this tacit knowledge could result in declined customer satisfaction. All three items of individual explicit knowledge also have significant influence on customer satisfaction at this level. Employees' engagement in personal training (β = 0.578, p \leq 0.1), knowledge they gain from journals and magazines

 $(\beta = 0.874, p \le 0.01)$, and their educational background $(\beta = 0.662, p \le 0.01)$. These are indicators of the importance of employees' personal development for the organizational good.

Three specific items of group tacit knowledge have significant relationship with customer satisfaction. Employees' shared experiences (β = -0.529, p \leq 0.01), Shared experiences result in most successes (β = -0.714, p \leq 0.01) and employees often share stories of their work (β = -0.293, p \leq 0.01). Likewise, group explicit knowledge statistically had significant relationship with customer satisfaction. Organizational knowledge base (β = 0.635, p \leq 0.01) and the organizational culture that mandates employees to document their personal experiences during work (β = 0.538, p \leq 0.01) were revealed to influence customer satisfaction. Still in model 4, the moderating role of first order organisational orientation variables on first order organizational knowledge variables and customer satisfaction was also found to be significant. The four dimensions of organizational knowledge were individually tested on individual constructs of the three dimensions of organisational orientation that were included in this research study. They are: learning orientation, entrepreneurial orientation and market orientation. The relationship between individual tacit knowledge and customer satisfaction was moderated by constructs of entrepreneurial orientation, such as autonomy (β = 2.699, p \leq 0.01) and interfunctional coordination (β = -2.156, p \leq 0.01).

Similarly, the relationship between individual explicit knowledge and customer satisfaction was moderated by learning orientation's: commitment to learning (β = 0.363, p ≤ 0.01), open mindedness (β = -10.984, p ≤ 0.01) and shared vision (β = 0.395, p ≤ 0.01), entrepreneurial orientation's: innovativeness (β = -0.869, p ≤ 0.01); and market orientation's: inter-functional coordination (β = 6.939, p ≤ 0.01). The influence of group tacit knowledge and customer satisfaction was moderated by organizational orientation. Statistically, learning orientation's: open mindedness (β = 11.004, p ≤ 0.01) and inter organizational knowledge sharing (β = -0.510, p ≤ 0.05); entrepreneurial orientation's: competitive aggressiveness (β = 0.989, p ≤ 0.01) and autonomy (β = -2.892, p ≤ 0.01); market orientation's: inter-functional coordination (β = -4.797, p ≤ 0.01). Lastly, statistical result showed that first order constructs of organizational orientation moderate the relationship between group explicit knowledge and customer satisfaction. These moderating factors include, learning orientation's: shared vision (β = -0.451, p ≤ 0.01); and entrepreneurial orientation's innovativeness (β = 0.342, p ≤ 0.05) and market orientation's: competitor orientation (β = -0.184, p ≤ 0.05).

Model 5 examined the influence of individuals' demographic factors on organizational effectiveness. None of the individual demographic factors included in this study was found to have any statistical influence on organisational effectiveness. In model 6, organisational demographic variables were included into the block. Nature of employees' employment with the organisation ($\beta=0.286$, $p\leq0.01$) and firm size ($\beta=-0.129$, $p\leq0.05$) were also found to influence organisational effectiveness. In model 7, organizational knowledge was introduced into the block. Individual-tacit knowledge, specifically the fact that employees with this tacit knowledge find it difficult to explain the steps involved with their work, has statistical influence on organisational effectiveness ($\beta=-0.109$, $p\leq0.01$). Individual-explicit knowledge was found to have significant influence on organisational effectiveness. Statistically, the knowledge that employees gain from personal training ($\beta=0.096$, $p\leq0.05$) and their educational background ($\beta=-0.083$, $p\leq0.1$) significantly impacts on their responsiveness to the extent of ensuring higher organisational effectiveness. Group-explicit knowledge, such as the organisation's knowledge base ($\beta=0.170$, $p\leq0.05$) and documentation of employees' personal experiences relating to their work ($\beta=0.152$, $\rho\leq0.01$), has statistical influence on organisational effectiveness.

Model 8, shows the moderating effect of organisational orientation on organisational knowledge and organisational effectiveness. Individual-tacit knowledge, specifically the fact that employees find it difficult to explain the steps involved with their work ($\beta = 0.503$, $p \le 0.01$) and the difficulty with writing down the procedures for carrying out their work ($\beta = 0.915$, $p \le 0.01$) were found to significantly predict organisational effectiveness. Individual-explicit knowledge such as the knowledge that employees gain from personal training ($\beta = -1.467$, $p \le 0.01$), knowledge gained from journals and magazines ($\beta = -1.811$, $p \le 0.01$) and their educational background ($\beta = -1.572$, $p \le 0.01$) significantly impacts on their responsiveness to the extent of ensuring higher organisational effectiveness.

Group-tacit knowledge, such as organizational culture (β = -0.238, p ≤ 0.01), Employees' shared experiences (β = 0.462, p ≤ 0.01), Shared experiences result in most successes (β = 0.934, p ≤ 0.01) and employees often share stories of their work (β = 0.215, p ≤ 0.01) influence organizational effectiveness. Likewise, group explicit knowledge statistically had significant relationship with organizational effectiveness. Specifically, organisational knowledge base (β = -0.973, p ≤ 0.01) and the organisational practice that mandates employees to document their personal experiences during work (β = -0.917, p ≤ 0.01) were revealed to influence organizational effectiveness.

The moderating role of first order organisational orientation variables on first order organisational knowledge variables and organizational effectiveness was also found to be significant. The four dimensions of organizational knowledge were individually tested on individual constructs of the three dimensions of organisational orientation that were included in this research study. They are: learning orientation, entrepreneurial orientation and market orientation. The relationship between individual tacit knowledge and organizational effectiveness was moderated by constructs of entrepreneurial orientation, such as autonomy ($\beta = -6.667$, p ≤ 0.01) and market orientation's interfunctional coordination ($\beta = 4.181$, p ≤ 0.01). Similarly, the relationship between individual explicit knowledge and organisational effectiveness was moderated by learning orientation's: open mindedness (β = 23.334, p \leq 0.01) and shared vision ($\beta = -0.515$, p ≤ 0.01); entrepreneurial orientation's: innovativeness ($\beta = 2.307$, p ≤ 0.01); and market orientation's: customer orientation ($\beta = 2.024$, p ≤ 0.01) and inter-functional coordination ($\beta = -16.143$, p \leq 0.01). The influence of group tacit knowledge and organizational effectiveness was also moderated by organisational orientation. Statistically, learning orientation's: open mindedness ($\beta = -23.369$, p ≤ 0.01) and inter organizational knowledge sharing (β = 1.59, p \leq 0.05); entrepreneurial orientation's: risk-taking (β = 0.801, p \leq 0.01), proactiveness (β = 0.290, p \leq 0.01), competitive aggressiveness (β = -1.015, p \leq 0.01) and autonomy (β = 7.009, p \leq 0.01); and market orientation's: inter-functional coordination (β = 12.258, p \leq 0.01). Lastly, statistical result showed that first order constructs of organizational orientation moderate the relationship between group explicit knowledge and organizational effectiveness. These moderating factors include, learning orientation's: shared vision ($\beta = 0.770$, p ≤ 0.01); and entrepreneurial orientation's: innovativeness ($\beta = -1.137$, p ≤ 0.05) and market orientation's: competitor orientation ($\beta = 0.531$, p ≤ 0.05).

Individuals' demographic factors had up to eight (8) percent influence on customer satisfaction ($r^2 = 0.433$), F (7, 150) = 1.979, p \leq 0.1. In model 2, with the influence of organisational demographic factors, the combine effect on customer satisfaction shifted upward by over three (3) percent ($r^2 = 0.433$; Δ $r^2 = 0.038$), F (10, 147) = 2.061, p \leq 0.05. with the introduction of organisational knowledge variables in model 3, the effect of the predictor variables had an overall higher influence on customer satisfaction of over sixteen (16) percent ($r^2 = 0.292$; Δ $r^2 = 0.169$), F (22, 135) = 2.535, p \leq 0.01. In model 4, with the moderating role of organisational orientation the influence of organisational knowledge on customer satisfaction further strengthened by up to twenty (20) percent ($r^2 = 0.500$; Δ $r^2 = 0.207$), F (41, 116) = 2.824, p \leq 0.01 when viewed from the first-order relationships.

In model 5, individuals' demographic factors had up to five (5) percent influence on organisational effectiveness ($r^2 = 0.058$), F (7, 150) = 1.316. In model 6, with the influence of organisational demographic factors, the combine effect on organisational effectiveness shifted upward by over ten (10) percent ($r^2 = 0.160$, $\Delta r^2 = 0.102$), F (10, 147) = 2.804, p \leq 0.01. With the introduction of organisational knowledge variables in model 7, the effect of the predictor variables had an overall higher influence on organizational effectiveness of over thirty-two (32) percent ($r^2 = 0.488$; $\Delta r^2 = 0.328$), F (22, 135) = 50853, p \leq 0.01. In model 8, with the moderating role of organisational orientation the influence of organisational knowledge on organisational effectiveness further strengthened by up to thirty-seven (37) percent $r^2 = 0.866$, $\Delta r^2 = 0.378$), F (41, 116) = 18.257, p \leq 0.01).

4. Discussion

The focus of this study was to examine the first order moderating effects of organisational orientation on the relationship between organisational knowledge and performance of the firm. The hierarchical multiple regression was used to show this relationship. The moderating effect of organisational orientation on the relationship between organisational knowledge and orientation was also evident from the statistical analysis. This research supports the existing endeavour of Wiklund and Shepherd (2003) who found that entrepreneurial orientation is significant to the utilization of knowledge based resources in enhancing organisational performance.

Based on statistical results, risk-taking attitude and autonomy (that is, entrepreneurial orientation), and interfunctional coordination (that is market orientation) moderated individual-tacit knowledge and both customer satisfaction and organisational effectiveness. Thus implying that employees with tacit knowledge in the organisation should be encouraged to come up with innovations that create radical industry changes, such that their strategic implementation can make the organisation a leader in that regard (Santoro, Vrontis, Thrassou, Dezi, 2017; Ibidunni, Ibidunni, Oke, Ayeni, Olokundun 2018). However, these individuals should be made to think in autonomy. The reason is explained by the fact that rather than having a strong bureaucratic culture, organisations that are dynamic and innovative have a more flexible culture that emphasise employee participation and idea sharing (Ferreira and Pilatti 2011). Also noticeable is that individuals with tacit knowledge should work together, especially across departments and units of the organisation. This is essential for monitoring purposes, especially since it is expected that all efforts in the organisation, whether by individuals or as a group must be towards the actualisation of the common objectives of the organisation.

Also, individual-explicit knowledge and organisational performance was moderated by commitment to learning, open mindedness and shared vision (that is learning orientation); innovativeness (that is, entrepreneurial orientation) and customer orientation and inter-functional coordination (that is, market orientation). Again the evidences reveal that individual explicit knowledge must be synchronized into a collective form that achieve organisational objectives. The attention of managers should be called to awareness that despite the gains achievable from group or collective endeavours in the organisation, acting individual, employees still have many positive ideas and impact that they could make on the organisation. Therefore, there should also be systematically designed tasks that keep employees individually engaged but at the same time, their knowledge and experiences should be gathered, documented and stored as references to guide future similar endeavours (Gberevbie 2010). Both indivudals and organizational managers should follow the pattern of continuous learning. As indicated in the absorptive learning literature (Kotabe, Jiang and Murray 2011), organizational members should continue to create new knowledge from existing ones. Thus, internal and external knowledge gathering should be emphasized (Denicolai, Zucchella and Strange 2014, Hwang, Lin, Shin 2018). As they continue with this attitude individual should be willing to subject organizational processes to change, where there is a need and a collective effort on knowledge sharing should be an important theme among organizational members.

As expected, the emphasis on group knowledge was more pronounced. However, result showed that moderation effect on group-tacit knowledge was more pronounced than on group-explicit knowledge. Group-tacit knowledge and organisational performance was moderated by opening mindedness and inter-organisational knowledge sharing (that is learning orientation); risk-taking, proactiveness and competitive aggressiveness (that is, entrepreneurial orientation); and autonomy and inter-functional coordination (that is, market orientation). Similarly, the three organisational orientations, though with slightly different and fewer number of items, influence the group-explicit and organisational performance relationship. The attention of managers is therefore called to specific areas of designing strategies for the organisations' market competitiveness, designing human resource strategies and setting operational strategies that guide organisational activities.

Conclusion

This research study focused on determining the moderating effect of organisational orientation on the relationship between organisational knowledge and performance. The hierarchical multiple regression was used to show this moderating effect. It was revealed that the three dimensions of organisational orientation, namely, learning, market and entrepreneurial orientations moderated the relationship between organisational knowledge and performance.

This research gives direction to the strategic and knowledge management literature by highlighting important and specific areas of organisational orientation, upon which organisational knowledge must align to influence strategic behaviours and achieve higher levels of organisational performance. Consequently, this research concludes that market, learning and entrepreneurial dimensions of organisational orientation are important aspects of organisational tacit and explicit knowledge gathering that can enhance organisational performance.

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