

The Relationship between Customer-Focused Capabilities and Information-Focused Capabilities on Firm Performance: A Moderated Mediation Model: Control Variables (Company Size)

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Abstract:-

Purpose: This paper aims to investigate the role of Customer-Focused Capabilities and Information-Focused Capabilities on firm performance in SEMs: A moderated mediation model: testing control variable (company size).

Design/methodology/approach: In this study, the authors used a mono method approach and using a survey instrument, to collect data from 200 successful Sudanese's SMEs. The units of analysis were individual Sudanese's SMEs firms, and the targeted respondents were managers or the owner of those SMEs.

Findings: The findings show Positive relationship between Customer -Focused Capabilities and Information-Focused Capabilities on performance. The results also reveal a positive relationship between logistics information technology and performance. Also, a positive relationship between Customer -Focused Capabilities and Information-Focused Capabilities as A moderated mediation model.

Originality/value: This study highlights the relationship between Customer -Focused Capabilities and Information-Focused Capabilities on firm performance, and the results may be generalisable to wider economies and different organization types.

Keywords:- Customer -Focused, Information-Focused, firm performance, A moderated mediation model.

I. INTRODUCTION

Competitive benefit may also be gained from two primary sources: belongings and the skills that allow belongings to be deployed advantageously (Dierickx and Cool 1989). Day (1994, p.38) described skills as “complex bundles of competencies and collected knowledge, exercised thru organizational processes, which allow corporations to coordinate things to do and make use of their assets.” Management’s mission is to make the most and leverage company precise property and competencies (Mahoney and Pandian 1992).

This lookup focuses on the relationships to overall performance of two sorts of capabilities: customer focused skills and information-focused capabilities. The connection

between customer focused competencies and association overall performance has lengthy been identified in advertising literature (e.g., Day 1994). In the logistics field, multiplied interest has been given to the relationships amongst customer-focused logistics abilities and association overall performance (Innis and La Londe 1994; Novack, Langley, and Rinehart 1995; Stank and Lackey 1997).

In particular, Bowersox, Closs, and Stank (1999) integrated key customer-focused skills into a “customer integration” assemble that shaped one core competence of corporations accomplishing excessive ranges of grant chain logistical integration. Information science and information-focused abilities have more and more been seen as key predictors of company performance. For example, EDI (electronic records interchange), e-commerce, e-logistics, ERP (enterprise useful resource planning), statistics warehousing, and records mining are cutting-edge buzzwords in the enterprise community. In logistics, the significance of records science has lengthy been diagnosed (e.g., Fawcett, Calantone, and Smith 1996; Williams et al. 1997). Bowersox, Closs, and Stank located information-focused abilities as essential enablers of multiplied association overall performance in fantastic exercise firms.

The main scientific contribution of this study is the review of previous relevant field studies in light of changes in the Sudanese business environment, specifically in the face of small and medium-sized companies that need to increase their understanding and assimilation of the changing environment in which business is run, specifically customer-centric skills and information-focused capabilities. We assume that there is an important relationship between customer-centric skills and information-centric capabilities on the company's performance. First, we intend to establish the links between between Customer -Focused Capabilities and Information-Focused Capabilities , which can help enhance the understanding of the performance . Second, we propose the A moderated mediation model: on the relationships between Customer -Focused Capabilities and Information-Focused Capabilities on firm performance. Third, we identify a contextual factor (i.e., Focused Capabilities) to determine the effectiveness of supply chain platforms. The remainder of this paper is arranged as follows. Section 2 reviews the relevant literature and Section 3 proposes the hypotheses. We show the research methodology in Section 4 and present the results in Section

5. Finally, the paper ends with our discussion and conclusions in Section 6.

II. LITERATURE REVIEW

A. Customer-Focused Capabilities

Various research streams in advertising and logistics guide the thinking that corporations have to boost customer-focused competencies in order to gain most advantageous performance. The idea of “market orientation” represents ultimate competencies in grasp and gratifying customers. Empirical proof helps the proposition that market orientation is positively related with top of the line overall performance (Deshpandé, Farley, and Webster 1993; Hunt and Morgan 1995; Jaworski and Kohli 1993; Narver and Slater 1990). Day argued that corporations may want to end up extra market oriented through figuring out and constructing the distinctive interior and exterior skills that set market-driven companies apart. In particular, market-driven agencies have greatest patron emphasis capabilities, together with market sensing, client linking, and channel bonding.

In logistics, Bowersox, Closs, and Stank (1999) furnish a complete conceptualization of customer-focused capabilities, calling it “customer integration.” Customer integration is “the competency of constructing lasting uniqueness with clients of choice” (p. 42) and entails “identifying the long-term requirements, expectations, and preferences of cutting-edge and/or practicable clients and markets, and focusing on developing patron value” (p. 31). They observed that, overall, corporations with excessive client integration ratings have been higher performers. Other researchers They discovered that, overall, companies with excessive consumer integration ratings had been higher performers. Other researchers (e.g., Emerson and Grimm 1998; Morash, Dröge and Vickery 1996; Stank and Lackey 1997) have additionally located high-quality relationships between perceptions of overall performance and flexibility, responsiveness, and consumer expectations.

Thus: H1: Customer-focused are positively linked to firm performance.

B. Information-Focused Capabilities

IFC can likewise be portrayed as “any construction of PC based measurements framework, along with centralized computer as pleasantly as microcomputer applications” (Orlikowski and Gash 1992.). As of not long ago, scientists respected to concur that information mechanical ability used to be promptly connected with affiliation in general execution and feasible forceful addition (e.g., McFarland 1984; Parsons 1983; Wiseman 1985). It was once moreover contended that insights innovative expertise had the conceivable to affect a full fluctuate of vital and undertaking factors, for example, cost positions, economies of scale, and strength individuals from the family with purchasers and providers (Benjamin et al. 1984; Cash and Konsynski 1985; Clemons 1986; Porter 1985). Late examination, nonetheless, has tested these contentions. Zahra and Covin (1993) noticed no immediate innovation execution association. Floyd and Wooldridge (1990) found no essential association between ATM reception and execution. Clemons and Row

(1991) depicted information science as a ware, being neither testing to switch nor to impersonate. Asset based hypothesis, in this manner, predicts that forceful impersonation at last disintegrates most measurements science based thoroughly benefits. Powell and Dent-Micallef agree: “firms that do now not embrace (data innovation) will have more noteworthy cost developments and thusly inconvenience” (1997.). They furthermore contend that accurately utilizing information science requires integral human sources (e.g., association, open correspondence, agreement, and CEO responsibility) and venture resources (e.g., vendor connections, seller information innovation, methodology update, and groups).

The impact of measurements mechanical skill on planned operations in general execution has consistently been the issue of query in strategies (e.g., Bowersox, Closs, and Stank 1999; Fawcett, Calantone, and Smith 1996; Global Logistics Research Team at Michigan State University 1995; Gustin, Daugherty, and Stank 1995; Williams et al. 1997).

Coordinated factors query has continually demonstrated that overseeing records innovative skill is a capability of basic importance to strategies execution. Little examination, be that as it may, presents a comprehensive perspective on measurements innovative expertise or addresses its relationship with various strategies capacities. Various examination have printed a brilliant connection between EDI — one sort of records science that is genuinely fundamental in operations — and expected effectivity and transporter gain (e.g., O’Callaghan, Kaufmann, and Konsynski 1992). EDI has moreover been connected with more limited process duration (Sutton 1997); inbound freight extraordinary (Walton and Maruchek 1997); general apparent expense (Williams, Magee, and Suzuki 1998); and decline charges (Dearing 1990; Sutton 1997).

both asset based standard and planned operations query guide the competition that measurements focused capacities without a moment's delay influence affiliation execution. By joining IT and the human elements of IT application, data centered capacities as a set address firm unambiguous abilities, mastery, and cycles which are hard to move and mimic. In this way:

H2: Information-focused capabilities are positively linked to firm performance.

C. Performance

Anderson and Oliver (1987) labeled overall performance measures into these focusing on the closing outcome-based overall performance versus behavior-based performance, and Haytko (1994) summarized their respective shortfalls. A overall performance assemble that accommodates each kinds of measures is really helpful (Anderson and Oliver 1987; Haytko 1994). Customer pleasure and return on property (ROA) are frequent conduct and outcome-based measures used in evaluating company overall performance in the advertising and administration literatures, which include logistics (Anderson and Oliver 1987). Logistics fee is additionally an outcome-based measure used pretty

regularly when evaluating logistics effectivity (Bowersox, Closs, and Stank 1999; MSU Global Logistics Research Team 1995).

III. RESEARCH METHODS

A. Sampling and data collection

This study carried out a questionnaire survey in Sudan. The unit of analysis had been person Sudanese manufacturing firms, and the focused respondents had been middle- and senior-level managers.

Following the proposed sampling manner for questionnaire formatting, distribution, and series (Dillman, 2007), we created an on-line survey, emailed the survey hyperlink to managers with excessive stages of journey in the chosen pattern firms, and promised to maintain the facts confidential.

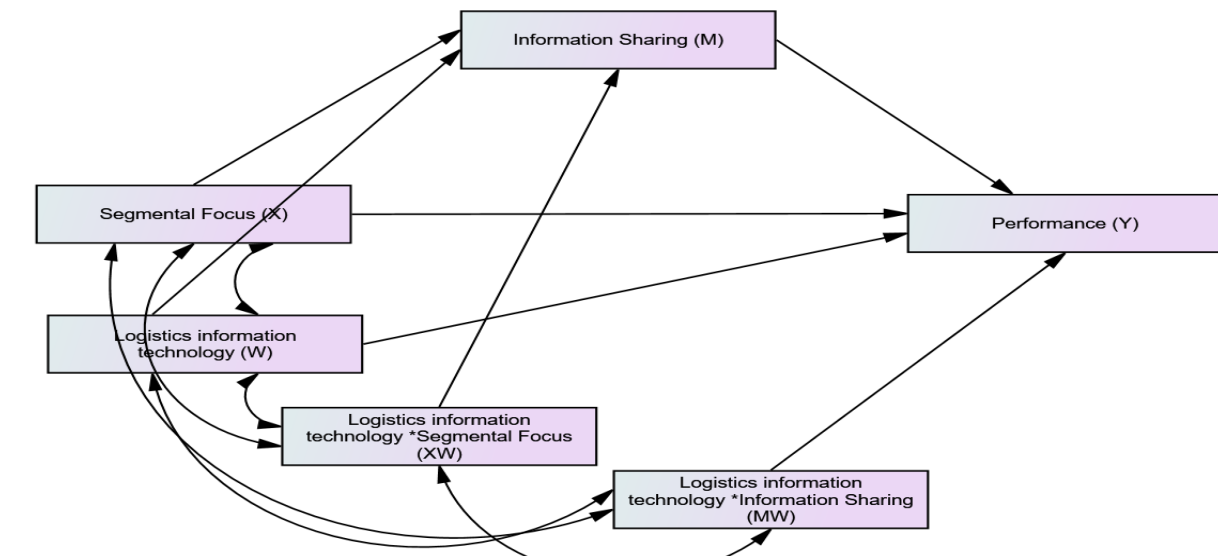


Fig. 1: Conceptual framework.

B. Measurement

Measures used to determine customer-focused and information-focused skills had been derived from preceding research. Each customer- and information-focused functionality was once measured the use of five-point Likert scales. measured through preceding lookup (Bowersox, Closs, and Stank 1999). Additionally, similarly evaluation the use of CFA confirmed the statistical acceptability of the scales.

while, Anderson and Oliver (1987) categorised overall performance measures into these focusing on the ultimate outcome-based overall performance versus behavior-based performance, and Haytko (1994) summarized their respective shortfalls. In the present day research, each outcome-based measures (ROA, and logistics cost) as nicely as a behavior-based measure (customer satisfaction) are used to improve a balanced evaluation of company performance. Respondents have been requested to price their firms' performance in every of these areas in assessment with their strongest competitors, the use of five-point Likert scales.

C. Empirical strategy

In this study, SPSS and AMOS had been used to take a look at the proposed model. SEM used to be used to look into the theoretical framework in order to take a look at the proposed model. In addition, it gives correct estimates of the

paths between constructs by way of inspecting the structural and size fashions concurrently (Chin, 1998). As a consequence, Sarstedt, Ringle, and Hair (2017) contend that SEM is a proper approach of trying out mediation and moderation outcomes and inspecting complicated relationships. Last however no longer least, CB-SEM is broadly used in a number lookup fields (e.g., Ferraris, Devalle, Ciampi, and Couturier, 2019; Rezvani, Dong, and Khosravi, 2017).

D. Non-response bias and common method bias countermeasures

Non-response bias and common method bias inclination countermeasures Following Armstrong and Overton's (1977) idea for Non-response bias (NRB) evaluation, we looked at 25% of responses from the initial fourteen days of the review time frame with 25% of reactions from the most recent two weeks and played out a t-test that uncovered our review was liberated from the NRB issue. Furthermore, it was checked that there was no distinction between the answers of the respondents in the two states utilizing the ANOVA examination, which uncovered that there were no fundamental differences. To alleviate the adverse consequences of normal technique predisposition (CMB), we performed different tests. We utilized Muthen and Muthen's (2007) M-in addition to programming stacking check, Harman's single element test (Gomez-Conde et al., 2019), and Podsakoff et al's. (2003) NRB test. These tests

showed that our review was liberated from CMB. Besides, we directed pre-testing for the questionnaire to guarantee the

understandability of the assertions introduced in that.

IV. DATA ANALYSIS AND RESULTS

We used SPSS and AMOS v 26 to assess the measurement model and structural model, and a bootstrapping estimation procedure was adopted to investigate the significance of mediation effects.

		Frequency	Percent
Company age	less than 5 years	6	3
	10- to 15	49	24.5
	15- 20	26	13
	over 15 year	119	59.5
company size	less than 50 employee	13	6.5
	50-100 employee	30	15
	100-150 employee	16	8
	over than 150 employee	141	70.5
Ownership	Joint	67	33.5
	Private	70	35
	Share holder	63	31.5
	Total	200	100

Table 1: Company profile

V. FACTOR ANALYSIS

A. Exploratory factor analysis

EFA was once carried out thru structured order, had been viewed for EFA. First, the Bartlett take a look at of sphericity used to be used to verify the relevance of issue evaluation which used to be evaluated by means of inspecting the correlation matrix of the accrued statistics (Hair et al., 2005). At the identical time, sampling adequacy used to be calculated with the aid of Kaiser-Meyer-Olkin (KMO) statistics. The rating of the Bartlett take a look at of sphericity and the KMO value. Using Maximum Likelihood

to habits (EFA). Factor evaluation was once performed on the twelve items, which used to be used to measure dimensions of the transaction attributes on logistics performance. Table 5.6 confirmed the precis of consequences all the gadgets it is above then 0.5. So, the KMO and Bartlett’s take a look at equal 0.869 which is full-size (0.00). This end result indicates that the pattern dimension is ample for structural equation modelling (Gaskin, 2012, Kenny and McCoach, 2003).

Pattern Matrix ^a	Cronbach's Alpha			
	.808	.683	.774	.729
SEG1 My firm has different, unique logistics service strategies for different customers.				.811
SEG2 My firm has established a program to integrate and facilitate individual customer requirements across our strategic business unit.				.851
SEG3 My firm uses logistical requirements as a basis of customer segmentation.				.724
LIT1 Logistics information systems in my firm are being extended to include more integrated applications.	.824			
LIT2 My firm's logistics information system capture and maintain real time data.	.650			
LIT3 Logistics operating and planning databases are integrated across applications within my firm.	.699			
LIT4 The information available in my firm is accurate, timely, and formatted to facilitate use.	.649			
INS1 My firm effectively shares operational information between departments.		.525		
INS2 My firm effectively shares operational information externally with selected suppliers and/or customers.		.642		
INS3 My firm maintains an integrated database and access method to facilitate information sharing.		.778		
The ratio of income before interest expense divided by average total assets.			.797	
The ability to achieve the lowest total cost of logistics through efficient operations, technology, and/or scale economies.			.893	
The global judgement regarding the extent to which perceived logistics performance matches customer expectations.			.534	

Table 2: Pattern Matrix^a

The results were found substantial, and hence the result of factor analysis was accepted (Hair et al., 2005).

B. Confirmatory factor analysis (CFA)

Confirmatory factor analysis (CFA) had been carried out to take a look at the reliability and validity of records measuring instrument, respectively. In order to verify the diploma of correspondence between the appear variables and latent assemble of the transaction attributes on logistics overall performance a multi-dimensional CFA mannequin in (Figure 1) has been conceptualized and examined for its psychometric properties.

Following Fornell and Larcker (1981), we performed a confirmatory component evaluation (CFA) to determine the

constructs in phrases of convergent validity, discriminant validity, and reliability. The effects of the CFA confirmed pretty desirable fit statistics: $\chi^2(59) = 112.329$, RMSEA=0.067, NFI=0.90, CFI=0.95, IFI=0.95, GFI=0.92, and SRMR=0.052. We used composite reliability (CR) and Cronbach's alpha to determine the reliability of all constructs. As proven in Table 3, all values of CR (ranging from 0.695 to 0.814) are greater than 0.7, suggesting sufficient reliability (Fornell and Larcker, 1981).

	CR	AVE	MSV	MaxR(H)	LOGISTICS INFORMATION	INFORMATION SHARING (M)	performance	SEGMENTAL FOCUS (X)
LOGISTICS INFORMATION	0.814	0.524	0.560	0.827	0.724			
INFORMATION SHARING (M)	0.695	0.439	0.560	0.730	0.748***	0.662		
performance	0.793	0.569	0.435	0.840	0.636***	0.660***	0.754	
SEGMENTAL FOCUS (X)	0.755	0.517	0.347	0.843	0.558***	0.589***	0.503***	0.719

Table 3: reliability and validity

C. Structural models and hypotheses test results.

In the current study, the hypotheses have been tested through constructing structural model using SEM. Structural model provides a direct effect on the output file as unstandardised and standardised

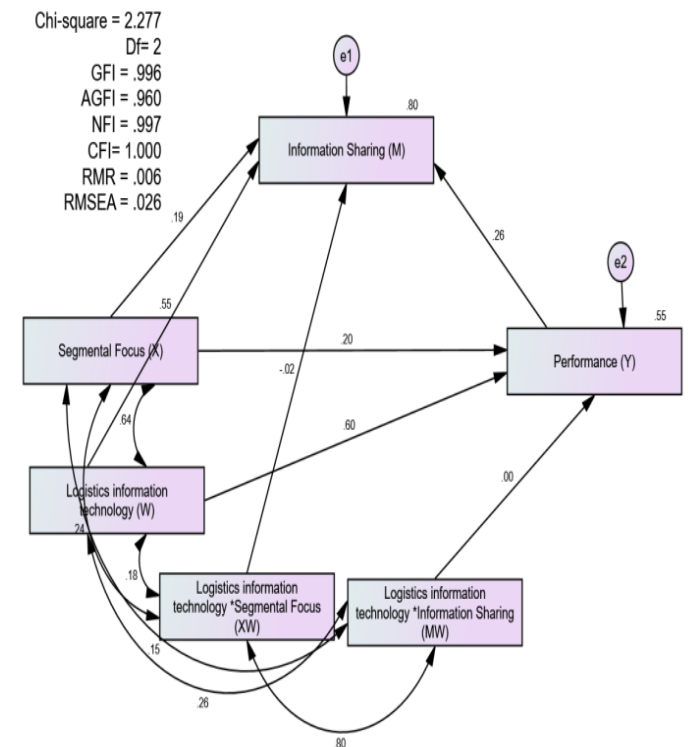


Fig. 2

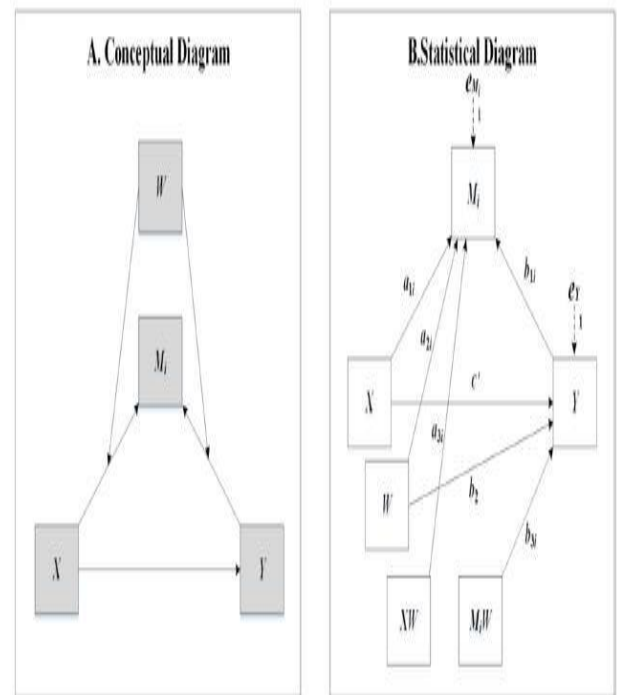


Fig. 3: Moderated Mediation

Fig. 3: shows the estimation results of the structural model. The goodness of fit indices were $\chi^2(2.277)$, DF=2, CMIN/DF= 1.138 with RMSEA=0.026, NFI=0.92, CFI=0.96, IFI=0.96, GFI=0.94, and SRMR=0.041, suggesting an acceptable fit.

		C.R.	P	Result
Performance	<--- SEGMENTAL FOCUS	3.142	.002	Support
Performance	<--- LOGISTICS INFORMATION TECHNOLOGY	9.437	***	Support
Performance	<--- ZLOGISTICS INFORMATION TECHNOLOGY_ZINS	.008	.994	Not support
INFORMATION SHARING	<--- SEGMENTAL FOCUS	4.465	***	Support
INFORMATION SHARING	<--- LOGISTICS INFORMATION TECHNOLOGY	10.940	***	Support
INFORMATION SHARING	<--- ZLOGISTICS INFORMATION TECHNOLOGY_ZSEGMENTAL FOCUS	-.712	.477	Not support
INFORMATION SHARING	<--- Performance	5.504	***	Support

Table 5 Direct Hypotheses Testing

Structural Equation modeling was adopted in order to analyze the relationship between the statistical data, and the results are shown in Table. According to the results, H1 is supported (t -statistic = 3.142 , p < 0.002), with a positive relationship between SEGMENTAL FOCUS and PERFORMANCE.

The results also reveal a positive relationship between LOGISTICS INFORMATION TECHNOLOGY and PERFORMANCE. also, a positive relationship between SEGMENTAL FOCUS and INFORMATION SHARING. moreover, LOGISTICS INFORMATION TECHNOLOGY positively effect on INFORMATION SHARING (t –statistic over (1.96) , p = less than 0.05).

	Indirect Effects	Lower Bounds	Upper Bounds	P Value
ZLIT (W) * ZINS (M)	0	-0.007	0.008	0.966
LIT (W)	0.134	0.084	0.198	0.000
SEG (X)	0.042	0.018	0.08	0.002

Performance (D)

Table 6: Moderated mediation analysis

(X) = independent (D) = dependent (M) = Mediator (W) = Moderator

the effect of Segmental Focus on performance through the Information Sharing is positive and significant (CI= 0.018 - 0.080 does not cross zero). However, the confidence interval for the difference between these two effects in the presence of the moderating Logistics information

technology crosses the value of zero (-0.007 - 0.008). This means that although the mediating effect marginally increases, it does not vary significantly across the Logistics information technology. Thus, hypothesis is not supported.

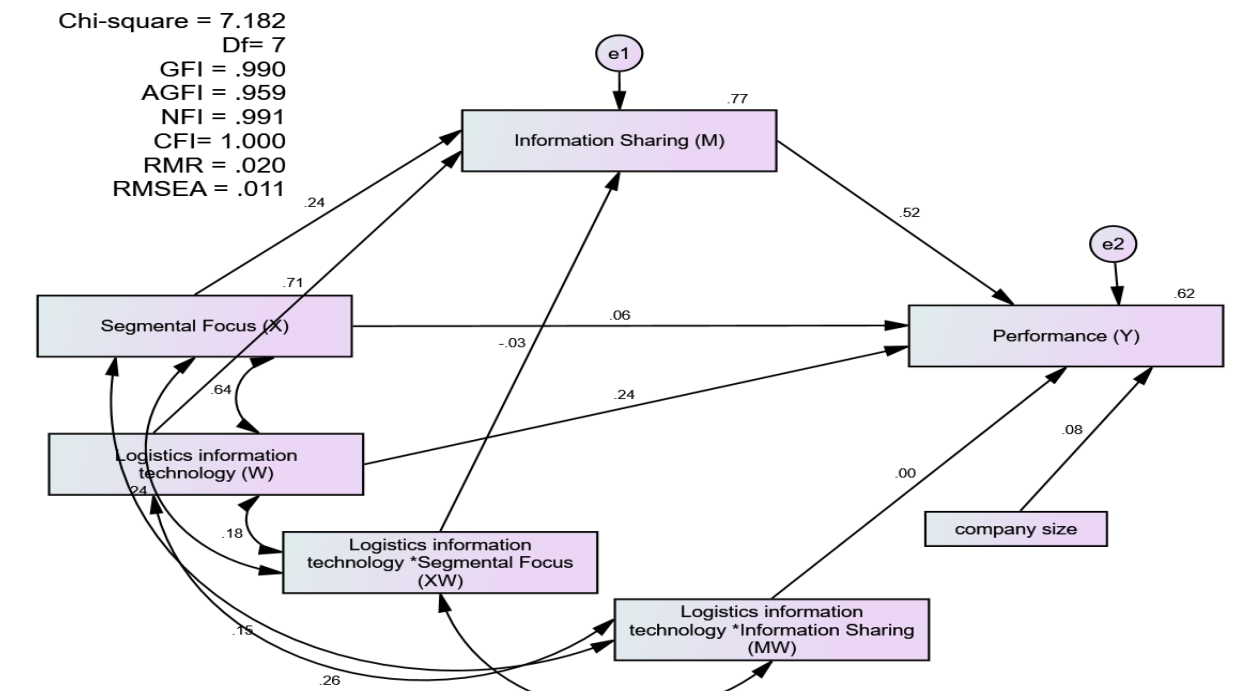


Fig. 4

Interpretation: The p-value of the chi-square difference test is significant; the model differs across groups.

Path Name	less than 150 employee Beta	over than 150 employee Beta	Difference in Betas	P-Value for Difference	Interpretation
SEG → INS.	0.288***	0.233***	0.055	0.294	There is no difference.
LIT → INS.	0.646***	0.721***	-0.074	0.768	There is no difference.
ZLIT_ZSEG → INS.	-0.050	-0.011	-0.039	0.528	There is no difference
SEG → performance.	-0.197†	0.160*	-0.357	0.007	The relationship between performance and SEG is negative for less than 150 employee and positive for over than 150 employee.
INS → performance.	0.637***	0.486***	0.152	0.624	There is no difference.
LIT → performance.	0.348**	0.199†	0.148	0.356	There is no difference.
ZLIT_ZINS → performance.	0.051	-0.058	0.109	0.260	There is no difference

Table 7: Local Testschi-square difference test

Significance Indicators: † $p < 0.100$, * $p < 0.050$, ** $p < 0.010$, *** $p < 0.001$

VI. RESULT AND DISCUSSION

This study examined ten hypotheses (five principal speculations divided into 10 sub speculations), The lookup findings expose that Positive relationship between Customer -Focused Capabilities and Information-Focused Capabilities on performance. The results also reveal a positive relationship between logistics information technology and performance. Also, a positive relationship between Customer -Focused Capabilities and Information-Focused Capabilities as A moderated mediation model.

The ensuing information-focused competencies can notably decorate different association abilities as proven with the aid of its great relationship with customer-focused competencies in the contemporary research. The consequences assist to give an explanation for why many companies fail to enhance overall performance after expending good sized assets to undertake new statistics science whilst different companies succeed. In a case find out about of IT techniques evaluating Japanese and Western firms, Bensaou and Earl (1998) discovered that “Western bias is towards science for technology’s sake; the Japanese bias is towards suitable technology”.

Our effects suggest that companies have to use their information-focused abilities to aid and facilitate consumer centered capabilities, which in flip are associated to accelerated performance. Investing and growing information-focused competencies can't be justified at once through overall performance goals, however as a substitute by way of the intention of constructing special customer-focused capabilities. Specifically, information-focused competencies can combine and diffuse understanding

associated to segmental focus, relevancy, responsiveness, and flexibility.

Previous research (Nusair, K , et al 2021) exhibit that strategic competencies have a sizable wonderful impact on purchaser satisfaction. However, the impact differs between manufacturing and provider SMEs; the impact is higher in carrier than in manufacturing SMEs. Furthermore, the impact of organizational competencies on patron pleasure was once observed to be positive. However, the impact is greater in manufacturing as the distinction is statistically significant. Also, (Tukamuhabwa, et al 2021) exhibit each provide chain administration practices and logistics abilities are positively and considerably related with logistics integration. Correspondingly , (Jorge Heredia et al 2022) The outcomes exhibit that digital abilities positively affect association overall performance solely thru technological capabilities. We additionally empirically exhibit that digital competencies in low HDI economies have a greater huge oblique impact on association overall performance than in excessive HDI countries.

Similarly, (Mariam Yasmin et al 2020) The consequences exhibit that BDA abilities are interdependent, and infrastructure competencies are the highest-ranked amongst all, accompanied by using administration and human aid capabilities, respectively. The SAW outcomes point out an affiliation between BDA competencies and association performance. Moreover, BDA abilities are extra strongly associated to operational overall performance than to market performance.

Although this is ample given our motive of analyzing macro-level constructs, a extra distinctive evaluation of the

component shape of gadgets to functionality is warranted. Such a 2nd order element shape evaluation would be revealing for each theory-building and managerial purposes. An extra place for future lookup is identifying whether or not different abilities show off the identical sample of direct and oblique relationships with overall performance as these verified via information-focused capabilities.

VII. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

While this study gives important bits of knowledge to research and practice, it likewise experiences a few constraints. To start with, this concentrate just analyzed the impact of Customer - Focused Capabilities and Information-Focused Capabilities on firm execution. Future examination might investigate different determinants of Logistics capacity, logistics outsourcing. Second, this study just investigated the moderation effect of logistic in formation technology ; future works may examine the influences of other environmental factors such as environmental dynamics, institutional pressures, among others.

VIII. CONCLUSION

The main contribution of this study to test a moderated mediation model on the relationship between Customer - Focused Capabilities and Information-Focused Capabilities on firm performance. which has brought about significant changes in many company's orientations. It highlights the importance of improving company services' to convenience the consumer, based on a comprehensive theoretical framework. Scarce empirical work has been conducted on the on the relationship between Customer -Focused Capabilities and Information-Focused Capabilities. Five of the seven relationships hypothesized in our model were found to be significant, providing numerous significant theoretical and practical implications. The constructs analyzed in this study present the possibility of directly and indirectly positively influencing the relationship between on the relationship between Customer -Focused Capabilities and Information-Focused Capabilities

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