Supply chain management and logistic presentation: Mediation effect of competitive advantage

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CHRONICLE	ABSTRACT
	Supply chain management (SCM) practices have become strategic resources and capabilities for enhancing both competitive advantage logistic performance (ORGPER). However, it is not clear how SC Practices influence logistic performance in the agribusiness context. However, the mechanism of SCMPs effects is not yet understood since extant literature has produced mixed results. Hence, this study sought to test the impact of mediation of the competitive advantage of relations between SCMP and Reperform the point of view of Kenya's dairy supply chain. The study examined four estimates that were tested using partial minimum square structural equation modeling (PLS-SAME) techniques to work out the purpose of the study. Across-departmental survey design has been used to collect preliminary data from 109 dairy cooperatives in thirteen major dairy producing counties in Kenya. The results reveal that SCM practice has a positive and significant effect on CA(P=0.730) and ORGPER (P=0.237). In addition, THERE is a positive, statistically significant effect on THECAORGPER (P=0.522). Further results show that CA mediates the relationship between SCMP and ORGPER. Consequently, the study concludes that SCMPs first generate CA, which in turn enhances ORGPER in a logistic sense. Theoretically, the study provides insights on the resource-based view theory as well as a conceptual framework for its validation. Similarly, the study informs managers and policymakers in knowing specific SCMPs to focus on to enhance CA and ORGPER of the dairy cooperatives in Kenya.

1. Introduction

Agricultural supply chains (ASC) play a critical role in providing access to markets (local, regional and international) for the farming communities. However, changes in the current marketplace limit the ability of agricultural enterprises to compete (Abbey et al., 2013). Currently, the market has become highly globalized, with high quality, price addition and rapid demand for customized agricultural food products (Ali et al., 2018). Thus, small and large agribusiness firms alike have to innovate to achieve cost efficiencies while still attempting to be flexible and responsive to the dynamic customer demand in the marketplaces (Anatan, 2014; Martínez-Navalón et al., 2019). Modern management thinking is advocating for the coordination, activation and management of important business processes across members of the supply chain as a new way to survive global competition and achieve sustainable performance (Apopa, 2018). Against this backdrop, supply chain management SCM has become part of business management approach that provides a framework for integrating an

elaborate network of business relationships from material suppliers to ultimate customers (Arham, 2014). SCM should manage the relationship between the companies responsible for efficient production and supply of consumers from the agricultural level, meeting the requirements of consumers in terms of quantity, quality and prices reliable (Babatunde, Gbadeyan & Bamiduro, 2015). Effective SCM has become a valuable source of improving CA and The ORGPER since competition is no longer within the company but within the supply chain (Banerjee & Mishra, 2017). In the long run, SCMP application swells market share and increases profits for all members of the supply chain (Barasa, 2017). Despite the continued focus on research on SCM, the methodology of SCMP's impact on the organper is not yet clear. According to Carrión et al. (2017), the nature of the connection between SCMPs and ORGPER can be direct or indirect, serial or non-serial, interdependent or opposite. However, most past studies often do not consider the impact of mediation in their estimates, contributing to SCMP combined research and performance incomplete (Carrion et al., 2017). As a result, this narrow focus leads to biased explanations of results for a variable that may not have direct effects but instead has an effect through another variable (Chege, 2017). Recent research is trying to experience this knowledge gap by using Kenya's dairy supply chain to investigate the impact of mediation between SCMP and institutional performance. This result will not only provide additional insight into the effectiveness of SCM practice from a research point of view but will also provide relevant effects to practicing managers who are more interested in learning specific SCM practices responsible for improving performance in the dairy industry.

2. Literature review

2.1 Supply Chain Management Practices (SCMPs)

SCM practice is seen from different perspectives and from multidimensional concepts (Diaconu & Alpopi, 2014). As a result, literature is full of SCMP levels from different perspectives but lacks consensus on relevant construction (Anatan, 2014; Odendaal, 1981). Strategic supplier partnerships, customer relations, data sharing levels, data sharing standards, and SCMPS levels are used as suspended. Another research (Dikshit & Trivedi, 2012a) highlights collaboration, demand and supply plan, list production and distribution management and logistics are used as SCMP (Tatoglu, etal., 2016; Tsolakis, et al., 2014; Maina, Njehia & Eric, 2020). In addition, four dimensions of SSC practice, such as green supply chain, customer relationship management (Barasa, 2017), supplier relationship management, outsourcing practice and in supply chain. In addition, Dikshit & Trivedi's (2012b) ideas are supply chain cooperation practices, Green practice, data practice, customer practice. In the same breath, Dries et al. (2014) present providers use range practices, supply chain policies, supplier assistance practices, risk management practices. In addition, Carrion, Nitzl & Roldan (2017) are of the view that benefactor relationship management practices, procedure management practices, client relationship management practices and IT care practices are cast-off (Wijetunge, 2016; Wong, 2019; Wong & Wong, 2011). Existing SCMP generally requires more specific practices in the management of the dairy supply chain (Fornell & Larcker, 1981). Therefore, the following procedures have been identified about the dairy supply chain; Information and Communication Technology Practices (Franke & Sarstedt, 2019), Supplier Relationship Practices, Supply Chain Manufacturing Practices, List Management Systems, Warehousing Management Systems, Transportation Management Systems, Customer Relationship Management. In this way, the current study proposes Customer Relationship Management (CRM), Information and Communication Technology (ICT), Logistics Management (LM), Management (PM) and Supplier Development (SD). The five SCMP supply chain has internal practices across both sides and the focus for the company (Hair, Howard & Nitzl, 2020).

2.2 Logistic Performance

ORGPER means a company achieving both market-oriented and financial goals (Garson, 2016; Prajapati, Kant & Gorane, 2018). According to the High Performance Firms, Big companies and societies like wealth attraction, wealth generation and employment generation can produce various benefits. Consequently, literature has identified various stages of institutional achievement, such as working, financial and market performance. Parameters, demand management, customer satisfaction and shareholder satisfaction as ORGP measurements. Other measures include activation, inflexibility and quality (Hair, Hult & Christian, 2017). Another study has been carried out to visualize effective customer satisfaction and institutional performance in terms of financial standards. In short, ORGPER can be classified as a financial or non-financial metric. In the light of this present literature, current research is effective as anORGPER measurement, market and customer satisfaction proposal.

2.3 Competitive advantage

CA refers to the level where a company can build a safe position on its rivals. It consists of qualifications that allow a company to separate itself from its rivals and a result of complex management decisions. Previous research suggests that different dimensions affect skimps" price, quality, supply, product innovation, and the competitive advantage of supply chain through time in the market" For example, Anatan (2014) has ensured that SCM practice affects CA through price, quality, delivery, product innovation and market time. Dikshit & Trivedi (2012b) are of the view that the price as a level of competitive advantage, premium price, price-to-customer value, reliable supply, and product innovation are considered. In this way, the current study included quality, supply reliability, and inflexibleness as a measure of competitive advantage.

2.4 Development of Hypotheses

SCMP not only improves the financial metric but also increases market performance and customer satisfaction. Efficient SCMPs have reduced list levels, empty warehouse space, cash flow and improved customer relations potential. In addition, SCMPs can increase the inability by improved control of supply, thereby increasing capacity usage (Dikshit & Trivedi, 2012a). Based on the above, this study posts that:

H₁: *SCM practices have significant effects on logistic performance.*
H₂: *SCM practices have significant effects on competitive advantage.*

SCMP can enable a company to separate from its rivals in relations of price/worth, quality, supply reliability and time in market. In addition, the market is led by efficient use of an efficient SC resource, which provides a competitive advantage of low product, improved product quality, rapid response, and finally. This capacity can not only improve the performance of the competitive advantage and not only the overall company but also improve the overall supply chain performance (Dikshit & Trivedi, 2012b). For example, SCMP delivery helps reduce lead-time and increase reactiveness, thereby creating a competitive advantage for the firm. Therefore, this study suggests that:

H₃: *CA has a significant effect on logistic performance.*
H₄: *Competitive advantage mediates the relationship between SCMPs and logistic performance.*

2.5 Conceptual framework

The hypothetical framework developed in this study proposes SCMP direct and indirect impact on the logistics of dairy cooperation in Indonesia (Hair, et al. 2019). Therefore, SCMP is expected to generate competitive advantage to the first generation, in turn improving logistics performance. Previously, various SCM methods affected many aspects of operational performance. Fig. 1 below represents the proposed conceptual for this study.
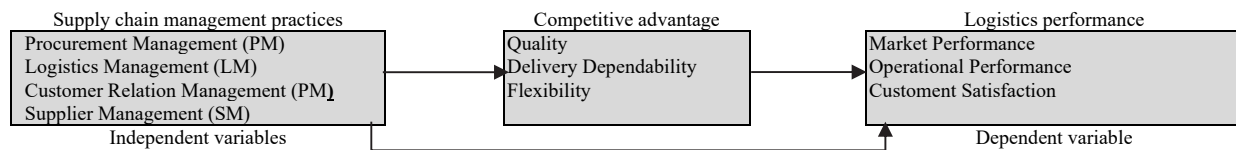
Supply chain management practices	Competitive advantage	Logistics performance
Procurement Management (PM) Logistics Management (LM) Customer Relation Management (PM**)** Supplier Management (SM)	Quality Delivery Dependability Flexibility	Market Performance Operational Performance Customent Satisfaction
Independent variables		Dependent variable

Fig. 1. Conceptual Frame work

3. Method

3.1 Measures of variables

Multiple item scales have been created to measure the levels of SCMPs, such as Info and communication technology, supplier progress, purchase, logistics, and customer relations management. In addition, the scale of multiple items is taken from past research to measure the level of construction (quality, supply reliability, and inflexibleness). In addition, multiple item scales are taken from past research to measure Logistic performance levels (market, operational and customer satisfaction). Scale item for SCM exercise 7 points The Likert scale is measured from 1 to 7 for each time. Similarly, a seven-Likert scale 1= strongly disagreed 7 = strongly agreed market performance, functional performance and customer satisfaction are accepted to measure Logistic performance.

3.2 Data

The study's population consists of dairy cooperatives operated in thirteen major dairy producing counties in Indonesia. A sample of 109 dairy cooperatives was selected from a population of 150 people, where the unit manager represented each of them as survey respondents. A cross-sensitive survey design is used to collect basic information using cross finished q; And after this field survey, a total of 100 questionnaires were returned, representing a response rate of about 92%. However, out of the 100 question papers returned, only 89 are complete and valid for analysis.

3.3 Data analysis

The current research experience applies structural equation modeling (SEM) methods to conduct analysis. SEM is a multifaceted analytical tool that has become common in complex interrelationship analysis (Sarstedt, Hopkins & Kuppelwieser, 2014) between tested and lazy variables. There are two types of SAME, such as factor/diversity-based CV-SAME and component/diversity based VB-SAME. However, when both methods are presented by clusters of tested variables, multiple independent and dependent variables are together: they are conceptually different in the construction measurement and model estimate method (Henseler, et al. 2014). treatment. While THE CV-SAME reduces the difference

between a tested diversity matrix and an indication covariance matrix, THE VB-SAME increases the amount of explained variation in dependent endogenous formation (Lorentz, et al., 2011; Sundram, Ibrahim & Govindaraju, 2011; Tailab, 2020) According to Henseler, Ringle & Sarstedt (2015), the VB-SEM involves various techniques, such as a regression on sum score or retreat on the main component, generalised structured component analysis (GSCA) and partial minimum square road modelling (PLS) (Henseler, Ringle & Sarstedt, 2015). PLS-SEM path modelling is suitable for estimating many theoretical models and the model because of the empirical data situations, so is considered a "silver bullet" (Henseler & Sarstedt, 2013). A benefit of PLS-SEM on other VB-SEM methods is the skill to mention the composite interrelationship among the observed and latent variables (Hwang, Sarstedt, Cheah & Ringle, 2020). Furthermore, PLS-SAME is a factor prediction method of SEM that insists on statistical model estimates, while providing causal explanations. The interaction among interpretation and predictor theory provides a description of the causal causes and predictions, in addition to theoretical structures and relationships between them (Johnson & Hofman, 2004). Based on this, current research sets the PLS-SAME strategy to settle as the most suitable statistical method for objective analysis. The application of PLS-SAME has been expanded in various academic branches. Such as international business marketing, human resource, accounting, strategic, tourism, hospitality and agricultural science and management (Hair, Sarstedt, Ringle & Gudergan, 2017). For example, Sundram, Ibrahim, & Govindaraju (2011), applied PLS-SAME to investigate the impact of SCMP on the presentation of the supply chain in electronics business.

3.4 PLS-SEM

The research, according to Johnson & Hofman (2004), suggested by taking a two-step approach, first assessing the measurement model, evaluating the structural model using SmartPLS 3.2.9 software. SmartPLS is a user-friendly software that usually requires little technical knowledge about the method.

4. Results

4.1 Model

There are two ways to introduce external models; Reflective or constructive (formative). Indicators or manifest variables are created by a reflector measurement model (Garson, 2016). influenced, or by the underlying talent variable. Conversely, a structural lazy construction index is caused instead of caused by built-in lant (Koh, et al. 2007). By means of the SmartPLS Confirmed Tetrod Analysis (CTA) algorithm, current research has confirmed that SCMPs, CA and ORGPER reflect measurement models, as shown in Fig. 3. Previous studies have shown similar results; Therefore, this study has concluded that SCMPs are models reflected in CA and ORGPER.
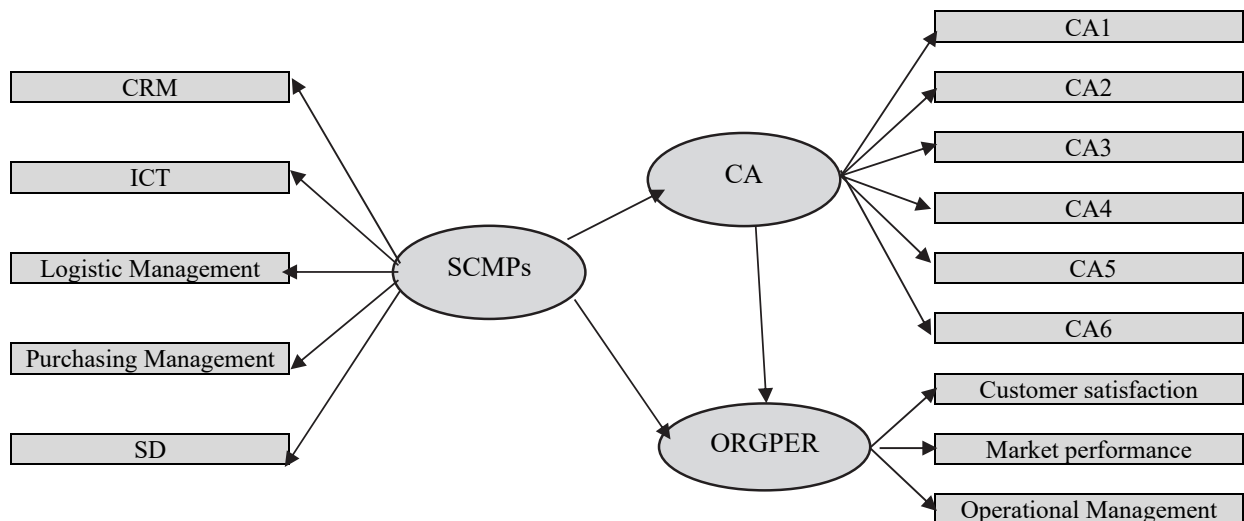

Fig. 2. Measurement Model

4.2 Evaluation of Measurement Model

According to assessing a reflective measurement model requires establishing indicator dependability, internal consistency dependability, hypothesis validity, convergent and discriminant validity (Kumar, 2020). Evaluation of the measurement model of reflection measurement assesses reliability of measurement (i.e., directive dependability and inner continuity dependability), and tenure (i.e., coordinated and discriminatory tenure) (Ali, et al. 2018).

Indicator Reliability

Indicator loading and their importance are determined by observing the reliability of the index. According to Hair, et al. (2020), standard loading value should be important for two-foot tests with a respective T-statistic above 0.708 and above ±1.96. In addition, biased biased-corrected and accelerated ((BCa) confidence breaks are observed that index loading has

not included zero to be statistically significant. Therefore, a bootstrapping process is implemented with 5,000 subsamples and 5% two-tail test testing at the importance level. Table 1 displays that all the standardised indicator loadings for the three concepts are overhead the smallest limit of 0.708 but CRM (0.663) That is, the latent variables More than captured 50% of respectively of his indicators. In addition, t statistics of all indicators loading sits at 1.96 > for three constructions, and their confidence break value is not included zero, thereby displaying a suitable level of indicator reliability.

Table 1
Test of Significance for the Outer loading

Indicator	Original Sample (O)	Sample Mean (M)	STDEV	T Statistics (|O/STDEV|)	Confidence Interval 2.5%	97.5%
CA1	0.780	0.779	0.058	13.444	0.630	0.866
CA2	0.739	0.738	0.062	11.945	0.588	0.833
CA3	0.859	0.857	0.028	30.194	0.795	0.905
CA4	0.763	0.764	0.056	13.673	0.625	0.850
CA5	0.802	0.800	0.069	11.591	0.623	0.898
CA6	0.820	0.821	0.037	22.415	0.726	0.878
MAKTP	0.867	0.864	0.040	21.690	0.758	0.919
OPERP	0.739	0.727	0.084	8.799	0.523	0.847
CUSAT	0.835	0.838	0.039	21.412	0.727	0.895
CRM	0.663	0.659	0.068	9.691	0.500	0.770

Notes 1: *t > 1.96 at 5% confidence interval in a two-tail test Original Sample (O) = Standardised indicator loadings

4.1.1 Construct Reliability and Validity

The current study used three metrics to assess thereliability of both SCMPs and ORGPER Cronbach's alpha (a), Joreskog's compositereliability ρc and Gold- steins Dillion composite reliabilityρA. According to Hair, et al. (2017), the value ofCronbach's alpha, composite reliability (CR), and rhoA should be higher than0.7 to establish the construct reliability. However, reliability score > 0.95 impliesthat the individual items measure the same concept, and are therefore redundant (Manuela, 2019). Further, convergent validity was assessed by the use of theAverage Variance Extracted (AVE) metric. Accordingly, AVE value of 0.5 is citedas the minimum criterion to establish the convergent validity of a construct. Thestandards of Cronbach's alpha, composite reliability (CR), and RhoA, (see Table 2) Minimum above thresholdof 0.7, show sufficient internal consistency for three builds. Additionally, AVEvalues of SCMPs, CA and ORGPER range from 0.561 to 0.665, indicating that thethree latent variables meet construct validity standards since they imprisonover 50% of their invisibility indicators.

Table 2
Construct Reliability and Validity

	HTMT	2.5%	97.5%
LOGISTIC PERFORMANCE → COMPETITVE ADVANTAGE	0.834	0.702	0.940
SCM PRACTICES → COMPETITVE ADVANTAGE	0.847	0.676	0.986
SCM PRACTICES → Logistic PERFORMANCE	0.763	0.582	0.903

Notes 2: AVE=Average modification extracted, ρ_{rho}= Dillon-Goldstein, ρc = Joreskog's Composite reliability. All metrics should be≥ 0.7

4.1.1 Discriminantvalidity

The traditional approach for assessing discriminant validityrelies on examining (i) the Fornell-Larcker criterion, and (ii) cross-loadings (Memia, 2018). However, Henseler, Ringle, & Sarstedt, claims that the two approaches cannotreliably discern the absence of discriminant validity in most researchscenarios and instead, proposed Heterotrait-monotrait (HTMT) ratio ofcorrelations as an alternative (Masdek & Othman, 2014). Thus, the current study utilized HTMT metric andconfidence intervals to assess if the upper bound of the 95% confidence intervalof HTMT is lower than 0.9. Table 3 shows HTMT values ranging from 0.763 to 0.847, Whichis below the conservative limit of more than 0.85. In addition, the analysisshows that the Cl97.s% value from the bias-revised and quicker (BCa)bootstrapping method includes a more traditional limit value of 0.85, directingthat lazy variables see discriminatory trial criteria and with each other.

Table 3
HTMT Results

LATENT VARIABLE	Cronbach's Alpha	Composite Reliability Rho_A	Composite reliability (ρc)	Average Variance Extracted (AVE)
CA	0.883	0.884	0.911	0.632
ORGPER	0.751	0.777	0.856	0.665
SCMPs	0.804	0.830	0.864	0.561

4.1 Evaluation of Structural Model

The first step in evaluating structural models is to test for linear. The current study uses various inflation factors (VIF) with decision criteria (Hair, Hult & Christian, 2017) cut to 3 and below. Below the set limit of VIF value 3 for both external and internal models, the absence of a kalinariati problem in the lazy variable sits. The previous steps in evaluating the structural

model follow the procedure described by (Hair, Howard & Nitzl, 2020). In particular, this process determines R2, impact size /2, and predictability of the model by relevance (Q2) to assess the predictor or interpretive ability, as well as the path coefficient (P) estimate.

4.3.1 Model Interpretive Strength

Model interpretive ability is tested considering the associate of adjustment R2 to determine the explanation for the variable dependent on the study. In general, the coordinated R2 value is 0 to 1, the high value directs a greater interpretive force. According to Joseph F. Hare etc., according to (2017), r2 standards are considered to be 0.75, 0.50, 0.25, and below (Hair, Hult & Christian, 2017). significant, moderate and weak respectively. In addition, Cohen's impact size (f2) is assessed using SCMPs effect size (f^2) on each of the three dimensions of ORGPER construction. According to Hair, Howard & Nitzl (2020), f^2 values 0.02, 0.15, and 0.35 respectively, direct small, medium or significant effects on the construction of an endogenous. In addition, the predicted relevance of the model is assessed using stone-gauger indicators (Q2). In this way, an blindfolded algorithm with a distance of seven (D=7) is executed to achieve q2 value. In general, the Q2 value is 0, 0.25, and is priced higher than 0.5.

Table 4
Model quality Criteria

MODEL	R Square	R Square Adjusted	Effect size (f2)	Q² (=1-SSE/SSO)
SCMPs→ CA	0.533	0.528	1.142	0.325
SCMP→ORGPER	0.509	0.498	0.053	0.310
CA→ORGPER			0.259	

Notes 3: R^2 values0.75= substantial,0.50=moderate and <0.25= weak, Q^2 > 0= small, Q^2 0.25=Medium and Q^2>0.5 substantial predictive relevance,: f^2 >0.02=small, >0.15=medium, and >0.35= substantial effect

The results show Adjusted R^2 = 0.528 and 0.498 indicating moderate explanatory power of the model. In other words, SCMPs explain 52.8%, of the variance of competitive advantage. Additionally, both SCMPs and CA explains 49.8%, of the variance of target variable ORGPER. These results indicate that SCMPs have a substantial effect on CA and a small effect on ORGPER while CA has a medium effect on ORGPER. Furthermore, results from blindfolding show SCMPs>CA **(Q^2) = 0.325**, SCMPs>ORGPER (Q^2) = 0.310, signifying medium predictive relevance. See a summary of these results in Table 4.
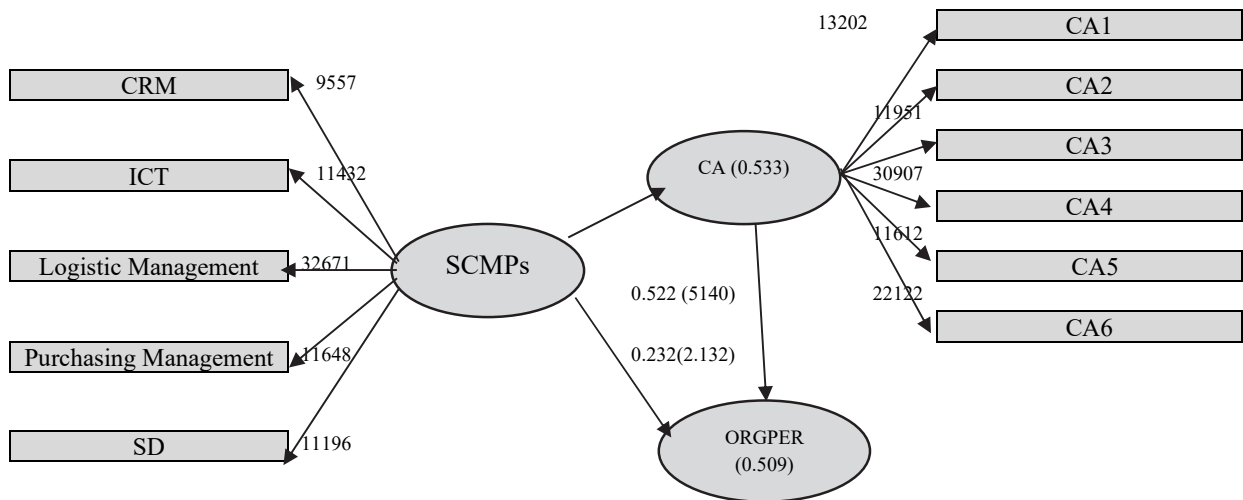

Fig. 3. Structural Modal

The standard path for three structural relationships is shown in Co-efficiency (β) (Value outside bracket) figure 3. It is found that the link between SCMP and CA is a positive path coefficient (β = 0.730) directing that unit growth in SCMP will positively increase SCMP by 73%. In addition, the connection between SCMPs and ORGPER is a positive path partner (β = 0.237) that a unit increase in SCMP will positively increase ORGPER by 23.7%. Furthermore, the link between CA and ORGPER (β = 0.522) directs that the increase of a unit of theCAwill positively increase the ORGPER by 52.2%.

4.3.3 Hypothesis testing

Recently, the study recommended the use of t-value and confidence intervals to test the importance of co-efficiency and guess testing along the way (Rasoolimanesh & Ali, 2018). According to the Trust Break data and sample size parameters that depend on the variety of parameters, they provide information about the sustainability of approximate companionability by proposing different reasonable population standards. In this way, research is effective in bias-correcting and accelerating

(BCa) bootstrap in SmartPLS algorithms with 5000 subsamples in two-leg tests at the importance level. Bootstrapping results are displayed on extraction Table 5. The results show that path associate for structural relationships - >ORGPER (β = 0.237) is statistically significant (P<0.05, t =2.183) and the confidence break for approximate path associate is not included zero. This result confirms Estimate 1, which states that high levels of SCM practice are related with height levels of logistic performance. This result is consistent with previous research. For example, a study by Abe, Bempa, and Ousu (2013) found a direct and significant relationship between SCMP and Logistic performance (Nitzl, Salgueiro & Cepeda-Carrión, 2016). Another study by Babatunde, Gbadian, and Bamidiro, Nigeria has unveiled a positive and significant relationship between SCMP and Logistic performance from select marketers of petroleum products. Furthermore, the results show that path associate for structural relations →CA (β = 0.731) is statistically significant (P<0.05, t =11.494) and the confidence break for approximate road cooperation is not included in zero. This result confirms **hypothesis 2,** which states that higher the level of supply chain management practices is associated with higher levels of competitive advantage. A study by Henseler & Sarstedt (2013) established a direct relationship between the competitive advantages of SCMP and Food Processing SMEs in Malaysia (Dikshit & Trivedi, 2012). In addition, Wijetunj & Ranwala (2018) have exposed a positive relationship between SCM practices and competition scm practices and competitions on medium-sized entrepreneurs in Sri Lanka. In addition, the results for structural relationships do not include CA→ ORGPER (β = 0.522) statistically significant (P<0.05, t =5.140) and zero confidence breaks for approximate path associates. This result confirms estimate 3, which says that high levels of competitive advantage are linked to high levels of ORGPER. (Dikshit & Trivedi, 2012). A study by, found a positive and statistically important relationship between CA and ORGPER on the cement industry in Indonesia.

Table 5
Hypothesis testing

PATH	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Confidence intervals	
						2.5%	97.5%
CA → ORGPER	0.522*	0.534	0.102	5.118	0.000	0.282	0.700
SCMPs→ CA	0.730*	0.736	0.062	11.786	0.000	0.586	0.833
SCMPS → ORGPER	0.237*	0.229	0.110	2.148	0.032	0.021	0.456

Notes 4: * Significance t- statistic>1.96 and P< 0.05 at 5% confidence level two-tail test

4.3.3 Mediation analysis

Further, the study sought to test the mediation effect of competitive advantage to have a better understanding of the role of SCMPs in explaining the variance of ORGPER in the model. To that effect, the procedure outlined for testing mediation effects in PLS-SEM was followed. The first step involved determining the significance of indirect effects and their magnitude, which was accomplished using the bootstrapping technique. According to Carrion, Nitzl & Roldan (2015), having a significant indirect effect is the key to determining the type of mediation effect and its magnitude (Carrion, Nitzl & Roldan, 2017). Subsequently, bootstrap analysis (see Table 6) shows that both the direct (**β= 0.381**) and indirect (**β= 0.381**) effects are statistically significant, which is a clear manifestation of partial mediation. These results confirm hypothesis 3, stating that competitive advantage mediates the relationship between SCM practices and logistic performance. The results agree with previous studies, which revealed that SCMPs first generates a competitive advantage, which in turn leads to enhanced logistic performance. A study by Brulhart & Moncef, (2015) revealed a partial mediation effect between SCM practices and logistic performance. Also, Dikshit ands Trivedi (2012) found a partial mediation effect of CA on the relationship between SCM and company performance on public manufacturing industry in Jabodetabek.

Table 6
Significance of Indirect effect

RELATIONSHIP	Total Effect	Direct effect	Indirect effect	T Statistics (|O/STDEV|)	P Values	Hypothesis
SCMPs → ORGPER	0.618*	0.237*	0.381*	4.545	0.000	Supported
SCMPs → CA	0.730*	0.730*	11.494	0.000	0.00	Supported
CA→ ORGPER	0.522*	0.522*	5.140	0.000	0.00	Supported

Notes 5: * Significance at t-statistic>1.96 and P< 0.05 at 5% confidence level two-tail test:

Further, the variance accounted for (VAF) was calculated to assess the magnitude of the mediation effect using the formula below.

$$VAF = \frac{indirect\ effect}{total\ effect} = \frac{0.730 * 0.522}{0.618} = 0.616$$

The indirect effect equals the product of both the link between SCMPs> CA (0.730) and CA>ORGPER (0.522). On the other hand, the total effect equals the sum of the direct link between SCMPs >ORGPER (0.237) and the indirect effect. According to Hair, Hult & Christian (2017), partial mediation is established when VAF exceeds the 0.2 threshold level, and that full mediation is demonstrated when it exceeds 0.8. Results show that 61.6% of the total effect is due to mediation effects. Thus, the relationship between SCMP and logistic performance is significantly mediated by competitive advantage.

4.3.3 Importance Performance Map Analysis (IPMA)

A post-hoc analysis was executed using the importance- performance matrix analysis (IPMA) by setting logistic performance as the target construct (Brulhart & Moncef, 2015). The method allows managers to improve management strategies since it indicates the main factors that require an immediate response or improvement (Rakhman, Surachman & Sumiati, 2016). The importance scores are the total effects of the outcome variable in the structural equation model. Further, performance values or index are derived by rescaling the latent variables score ranging from 0 to 100 . The higher the factor yield, the closer the factor is to 100, and all total effects should be higher than 0.10 and significant at p < 0.05 (Rasoolimanesh & Ali, 2018). Thus, the preference will be on improving the performance of those constructs that indicates importance about their explanation of a target construct, even though at the same time having a relatively low Performance (Sarstedt & Cheah, 2019; Shmueli, et al. 2019; Spina, et al., 2015; Storer, et al., 2014). Fig. 4 presents the total effects (importance) on the x-axis and mean values (performance) on the y-axis used for the importance-performance matrix analysis. From the results, logistics management has a relatively high total effect on ORGPER followed by ICT, SD, PM and CRM in that order. Specifically, LM has a positive total effect =0.199 (importance) on the ORGPER, indication that a 1-unit increase LM will increase the performance of ORGPER by 0.199 ceteris paribus. However, LM has the lowest performance index compared to the other indicators of SCM practices.
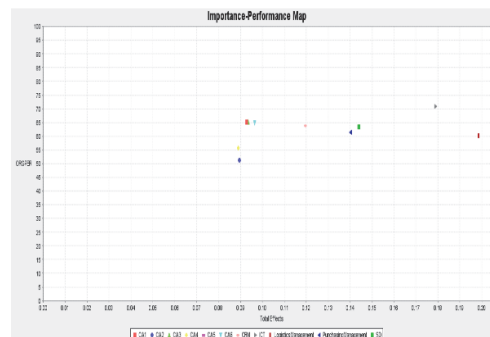

Fig. 4. Importance Performance Matrix Analysis for target Variable ORGPER

5. Discussions and Conclusion

The paper is intended to analyze the direct and indirect impact of the randpi, which is analyzed as a mediating variable through competitive advantage. Road analysis results state that all road partners are positive. Four estimates are accepted at 5% importance level. In particular, the results show that both SCMP and CA have a positive and statistically significant impact on ORGPAR. However, there is a more direct impact on CA(p= 0.730) than the SCMP ORGPper (p= 0.237). Logically, the relatively low impact of SCMP is due to other factors that may affect Logistic performance, which were outside the scope of this study. Despite the relatively low direct impact of SCMP on ORGPER, SCMP (0.618) (0.203+ (0.730*0.522) = 0.618) is the critical role of SCMP. Logistic Management among the five external drivers had the strongest impact on ORGRGR (0.199), followed by ICT (0.179), SD (0.144), PM (0.140) and CRM (0.120). The results uncover complex areas where management and policy-making can focus on increasing competitive advantages and improving Logistic performance in the dairy industry. Therefore, it is recommended that managers pay special attention to logistics activities which positively affect both competitive advantages and Logistic performance in the dairy industry. Similarly, managers should focus on logistics activities that try to make milk collection hopeful through systems such as milk runs, bulking in strategic positions and setting cooling facilities. At the same time, logistics issues have to be addressed beyond the objectives of policy intervention initiatives by both national and local governments. In particular, local and national governments should link up with road infrastructure, national grids and alternative sources of cheap fuel and tax systems to encourage investment in cold supply chain equipment.

5.1 Conclusions

The study sought to establish structural ties between SCMP, competitive advantage and ORGPER using Kenya's dairy supply chain. The results ensure that SCM plays a very significant part in ensuring modest benefit and improving overall logistic performance of the dairy industry. The SCMPs effect on ORGPER can be either directly or indirectly through competitive advantages. Therefore, the SCMP growth could provide a high level of competitive advantage and Logistic performance in Kenya's dairy industry. The current research was not without limitations. The focus of the current research was on SCMP as the main decisive factor in Logistic performance. However, ORGPER is influenced by many elements; So focusing on one subject can be unfinished. Therefore, future research should consider the impact of modernization of elements such as operational enforcement, capital, technology, and management capacity. In addition, the current research is the model in construction because of the relationship taking on recurring relationships. However, the relationship between research construction can be complex and not always direct since increased competitive advantage, and enhanced Logistic performance can improve the level of SCM practice. Therefore, future research should consider non-recurring models in SCMP, CA, and logistic performance.

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