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Relationship between Logistics and E-Commerce in the Retail Sector of Zimbabwe

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ABSTRACT

The study outlined the relationship between logistics and e-commerce in the retail sector of Zimbabwe. The study was guided by objectives that involved to assess the impact of logistics on tracking support system, to determine the impact of logistics on inventory management systems and to assess the impact of logistics on internet marketing. The e-commerce theories were adopted in this study as well as supporting literature. The study adopted a correlational research design as it helped in deducing the relationship between logistics and e-commerce. A target population of 20 selected retail organizations was adopted as the census was used since the number was small for sampling. Questionnaires were used in gathering data from the participants. The findings proved that a positive correlation existed between logistics and e-commerce. The recommended area of the further researcher was the impact of logistics management on customer retention.

Keywords: logistics and e-commerce.

BACKGROUND OF THE STUDY

The business world we live in today revolves around technological changes and to keep up with the fast-moving pace there is a need for global retail organizations to embrace e-commerce for improved logistics (Violet, 2018). Electronic commerce in business is the process of selling or even buying products on online services or even performing business transactions using the internet. European retail organization has been using e-commerce to facilitate logistics that involve the movement of goods from their original point to where they are consumed by end-users (Lillian, 2017). E-commerce has contributed to improved logistics of global retail organizations through improved internet marketing, for example, Amazon, facilitated tracking support system, improved inventory control systems and facilitated supply chain management (Milton, 2017).

In Africa, the retail organization has discovered that a positive relationship exists between logistics and e-commerce. E-commerce adoption has improved logistics of retail organizations in South Africa that include Spar, Shoprite and Ok as evidenced by increased revenue generation by more than R23, 4 billion, reduced customer complaints by 55% and improved reach out to customers through internet marketing (Chen and Simons, 2018). African retail organization is now turning away from the use of a manual system in business as they have embraced e-commerce as a remedial for successful logistics.

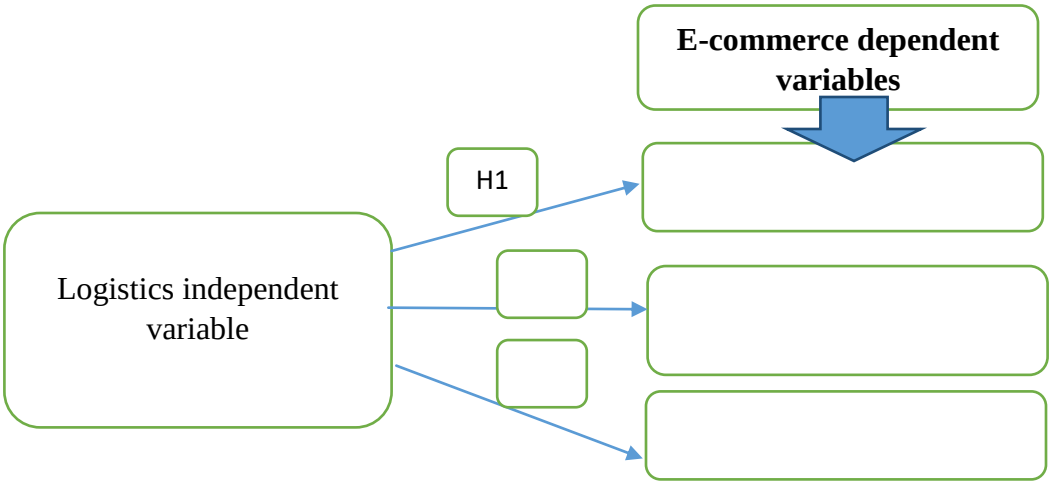
Researches on e-commerce are not necessarily new to the current knowledge body. A research was conducted by Flip (2016) on the impact of e-commerce on financial performance in the manufacturing sector of German. Another was conducted by George and Hillary (2017) on the effect of e-commerce on customer satisfaction in the hospitality sector of Tanzania. Basing on the research done in Tanzania and German it seems a knowledge gap still exists in the retail sector of Zimbabwe. The study will look into the relationship between logistics and e-commerce in the retail sector of Zimbabwe.

The retail sector of Zimbabwe has adopted e-commerce in improving logistics. E-commerce has been adopted to improve logistics through improved distributions of goods, easy settlement of bills, inventory control and improved supply chain management (Moyo, 2017). Despite the efforts made by the retail organization on adopting e-commerce to facilitate improved logistics, it seems as if the organization still faces numerous challenges that include long queues in supermarkets, delays on clearance of delivery vehicles, poor inventory control systems and failure to integrate all departments to complement each other. The retail organization has not been sure of whether the challenges are linked to compromised internet service or poor implementation of e-commerce services.

STATEMENT OF THE PROBLEM

Despite the efforts made by the retail organization on adopting e-commerce to facilitate improved logistics, it seems as if the organization still faces numerous challenges that include long queues in supermarkets, delays on clearance of delivery vehicles, poor inventory control systems and failure to integrate all departments to complement each other. The retail organization has not been sure of whether the challenges are linked to compromised internet service or poor implementation of e-commerce services.

CONCEPTUAL FRAMEWORK



Source: Author

The conceptual framework shows the relationship between logistics (independent variable) and e-commerce (dependent variable) measured by tracking support system, inventory control system and internet marketing.

RESEARCH OBJECTIVES

To assess the impact of logistics on tracking support system

To determine the impact of logistics on inventory management systems

To assess the impact of logistics on internet marketing

HYPOTHESIS TESTING

H1 There is an impact between logistics and tracking support system

H2 There is an impact between logistics and inventory management systems

H3 There is an impact between logistics and internet marketing

LITERATURE REVIEW

Logistics management

Logistics management is a supply chain management component that is used to meet customer demands through the planning, control, and implementation of the effective movement and storage of related information, goods and services from origin to destination. Logistics management facilitates the reduction of operational expenses and improves the supply chain. Logistics management needs a new pattern of thinking based on entropic thinking and nonlinear thinking which bring together the capacity of

developing strategies and approaching complex problems (Bolisani and Bratianu, 2017; Bratianu, 2007)

The impact of logistics on tracking support system

The logistics and supply chain network is a very complex business practice that needs coordination, collaboration and information exchange which helps enhances the main organizational goal of improving profitability and productivity (Choi and Krause, 2006; Myerson, 2007). Due to changes in technological advancement organizations in the supply chain have improved their systems in order to improve efficiency. Achieving traceability through an end-to-end supply chain is a complex entity and access to reliable data tracking and tracing is needed. Research done by Elmore (2014) alluded that tracking and tracing in logistics management involves managing the successive links between batches and logistic units throughout the entire supply chain network. Due to improved technology business to business relations has grown, therefore there is a need for organization in the supply chain to adopt technology as a way to improve efficiency in productivity and efficiency.

Research is done by Harvey (2014) supply chain networks simultaneously handles a huge amount of goods that need a delivery plan in order to reduce the accompanying logistics and labor costs to process customer claims (Ko et al., 2011). Furthermore, Hilndler (2014) highlighted that an independent tracking system for the delivery of goods contributes to reducing the costs for claims as a consequence of goods routing errors. There is increasing demand for tracking and tracing in the supply chain, statutory requirements are growing stricter, and there is increasing pressure to develop standardized systems to tackle such logistics needs (Kandel et al., 2011). To tackle such needs, each step in the supply chain, such as transportation, packing, distribution system, etc., should have its own information associated with the tracing system (Ruiz-Garcia et al., 2010).

The impact of logistics on inventory management systems

According to Stevenson (2010), inventory management refers to a framework employed in firms in controlling its interest in inventory and improving the supply chain. Best inventory system help to improve the efficiency of supply chain and logistics. Research done by Vitola (2014) stated that organizations in manufacturing should improve their inventory systems as a way to enhance the supply and value chain. However, Deveshwar and Dhawal (2013) proposed that inventory management systems are a method that companies use to organize, store, and replace inventory, to keep an adequate supply of goods at the same time minimizing cost. Therefore an inventory management system should be efficient to improve the supply chain

A study conducted in Kenya by Naliaka and Namusonge (2015) hypothesized that the inventory management system has a positive relationship with the supply chain. The findings alluded that the inventory management system helps to enhance the competitive advantage of manufacturing firms. The findings from the researchers conclude that the

manufacturing firms due to a successful implementation of inventory system organizations will be able to compete based on the quality and delivery of customer orders on time. Competitive advantage comprises capabilities that allow an organization to differentiate itself from its competitors and is an outcome of critical management decisions (Subba Rao, 2006).

The inventory investment for a small business takes up a big percentage of the total budget, yet inventory control is one of the most neglected management areas in small firms. Many small firms have an excessive amount of cash tied up to the accumulation of inventory sitting for a long period because of the slack inventory management or inability to control the inventory efficiently. Poor inventory management translates directly into strains on a company's cash flow. Therefore there is a need for organizations to adopt an inventory system that integrates the whole supply chain as a way to improve organizational competitiveness and efficiency.

The impact of logistics on internet marketing

Nowadays it is a sure thing that logistics has many aspects and is not just linked to the manufacturing, production or supply chain (Meybodi, 2015). Logistics is linked closely with the intellectual capital relationship between business to business in the supply chain research done by Gregory (2014) alluded that internet marketing helps to improve logistics management through improved efficiency in the delivery of goods and services. Online marketing has turned business into a friendly and less volatile since it has improved the delivery of goods and services. It has been ascertained, in particular, that internet marketing is important in logistics. Lai and Cheng (2009), mentioned, for instance, its link to the ability to deliver the right amount of right product, at the right place, at the right time, in the right condition with the right information. Research done by Shelvey (2014) highlighted that there is a positive relationship between internet marketing, delivery and logistics solutions (Sharma et al., 2014). In this sense, suppliers have to react to customer's demand in a timely manner increasing their abilities to master all the processes including the logistic ones. A logistics is an important tool in the supply chain as it helps to integrate suppliers in an organization with the supply chain processes to increase efficiency.

In addition, Bowersox et al. (2013) alluded that supply management processes which can affect logistics and reported that a logistical value proposition and logistics have a big impact on internet marketing leveraging on order processing, inventory management, transportation, handling and packaging, and production, as well as facility network design. Furthermore, research done by Beilling (2015) alluded that internet marketing has been an instrumental tool in the supply chain since it helps to breach the challenge of international boundaries. The Internet has transformed the supply chain through the introduction of online buying and purchasing. The purchasing and suppliers have been improved as evidenced by the creation of multi-billion online retail shops such as Alibaba and Amazon. In addition, research done by Verlin (2014) pinpointed that internet marketing brings many benefits to the supply chain. Therefore there is a direct

relationship between logistics and internet marketing. If organizations in the retail adopt internet marketing there is a greater likelihood that logistical operations will be enhanced.

RESEARCH METHODOLOGY

Positivist research philosophy was adopted as the study intended to see the causal effect between logistics and e-commerce. The research philosophy was adopted basing on the assumption that the study was deemed to be more quantitative. Exploratory research design shall be aligned to the philosophy alluded above as it helps in obtaining new insights.

RESEARCH DESIGN

The explanatory research design was adopted as the study wanted to test relationships between the study variables. The research design was effective for testing the relationship between logistics and e-commerce.

FINDINGS AND DISCUSSION

The researcher distributed 20 questionnaires and 15 were returned to achieve a 75% response rate. A higher response rate of 75% was effective in ensuring the reliability of this research in relation to the Cronbach Alpha test.

Model Summary on the relationship between logistics and e-commerce

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.84	.827	. 838	1.05342

a. Predictors: (Constant), Logistics
b. Dependent Variable: E-commerce

An adjusted R-squared of 84% was found in this study and it translates to the increasing effect of the model fit more than the expected on any chance alone.

RELATIONSHIP BETWEEN LOGISTICS AND TRACKING SUPPORT SYSTEM

The study deduced a spearman correlation coefficient of 0.357 between logistics and tracking support system. The correlation coefficient entails the existence of a positive moderate liner relationship. Thus an improvement in the tracking support system by 1 unit will lead to an improvement in logistics by a 36% level of the coefficient.

Spearman correlation coefficient of logistics and tracking support system

Correlations

			MORAPP	RECYINT
Spearman's rho	LOGISTICS	Correlation Coefficient	1.000	.357**
		Sig. (2-tailed)	.	.000
		N	15	15
	TRACKING SUPPORT SYSTEM	Correlation Coefficient	.357**	1.000
		Sig. (2-tailed)	.000	.
		N	15	15

RELATIONSHIP BETWEEN LOGISTICS AND INTERNET MARKETING

The study deduced a spearman correlation coefficient of 0.312 between logistics on internet marketing. The correlation coefficient entails the existence of a positive moderate liner relationship. Thus an improvement in internet marketing by 1 unit will lead to an improvement in logistics by a 31% level of the coefficient.

Spearman correlation coefficient of logistics and internet marketing

Correlations

			MORAPP	RECYINT
Spearman's rho	LOGISTICS	Correlation Coefficient	1.000	.312**
		Sig. (2-tailed)	.	.000
		N	15	15
	INTERNET MARKETING	Correlation Coefficient	.312**	1.000
		Sig. (2-tailed)	.000	.
		N	15	15

RELATIONSHIP BETWEEN LOGISTICS ON INVENTORY MANAGEMENT SYSTEMS

The study deduced a spearman correlation coefficient of 0.342 between logistics on inventory management systems. The correlation coefficient entails the existence of a positive moderate liner relationship. Thus an improvement in inventory management systems by 1 unit will lead to an improvement in logistics by a 34% level of the coefficient.

Spearman correlation coefficient of logistics and inventory control systems

Correlations

			MORAPP	RECYINT
Spearman's rho	LOGISTICS	Correlation Coefficient	1.000	.342**
		Sig. (2-tailed)	.	.000
		N	15	15
	INVENTORY CONTROL SYSTEMS	Correlation Coefficient	.342**	1.000
		Sig. (2-tailed)	.000	.
		N	15	15

CONCLUSIONS

The study recommends that there is a positive relationship that exists between logistics and e-commerce. This concurs with Freidman (2015) who poised that e-commerce improves logistics in terms of smooth business operations, convenience and is not affected by any geographic boundaries.

RECOMMENDATION

The study recommends that retail organizations should keep abreast changes in technology as most organizations in the twenty-first century have embraced e-commerce as a strategy to easy up their day to day running's. Additionally, organizations are advised to invest more in e-commerce as it helps in performing business at any given time even at night as it is integrated by mobile gadgets and computers.

RECOMMENDED AREA OF FURTHER RESEARCH

Next author can look into the effectiveness of bar code scanners as a way of improving sales generation in the retail industry. This was identified as a potential gap based on the outcomes of the literature review of the current study since most of the authors failed to exhaust this area with regards to e-commerce.

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