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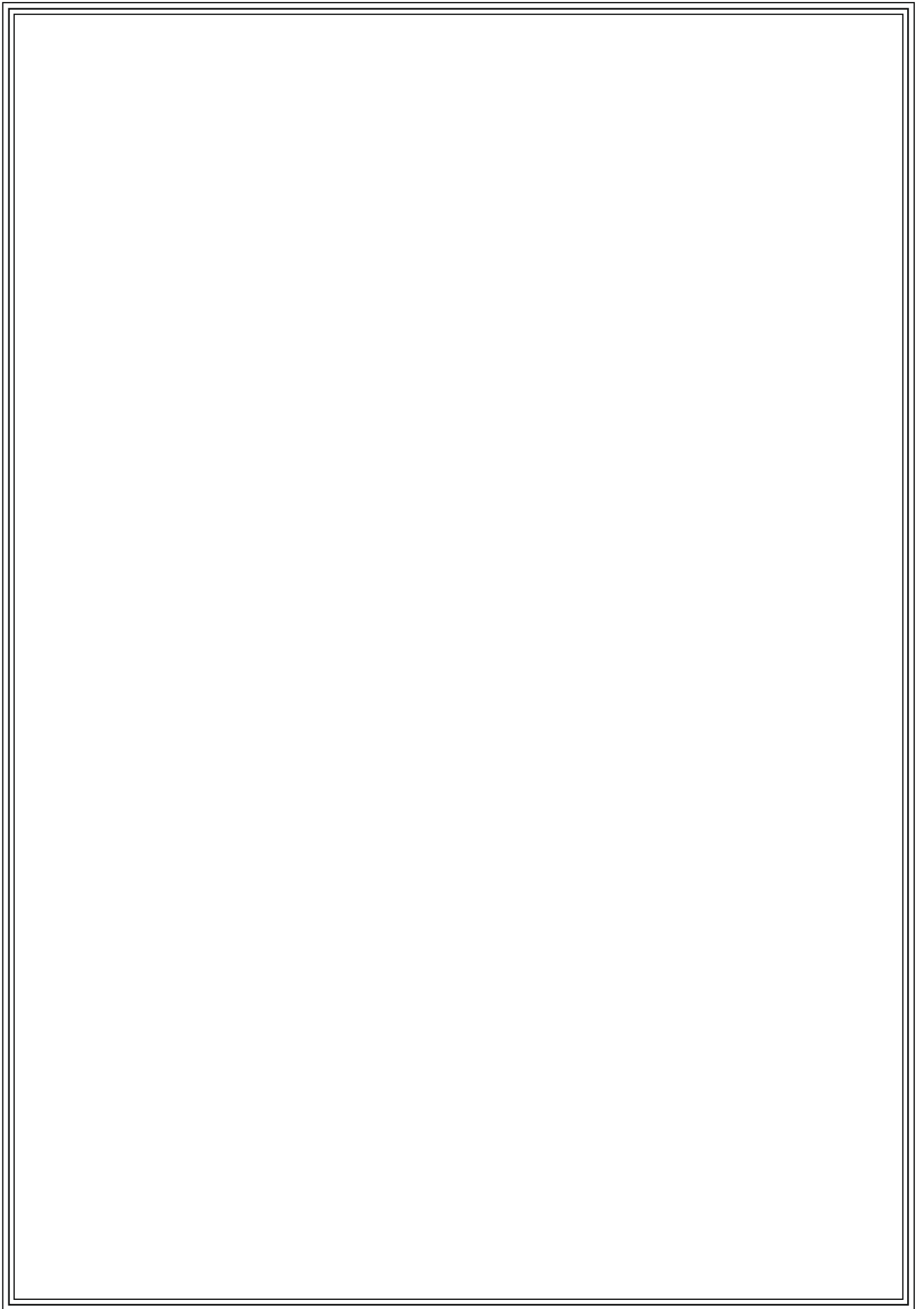
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# **International Journal of Research in Management, Economics & Commerce**

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The International Journal of Research in Management, Economics and Commerce (IJRMEC) is a refereed research journal which aims to promote the links between Management, Economics and Commerce. The journal focuses on issues related to the development and implementation of new methodologies and technologies, which improve the operational objectives of an organization. These include, among others, product development, human resources management, project management, logistics, production management, e-commerce, quality management, financial planning, risk management, decision support systems, General Management, Banking, Insurance, Economics, Thus, the journal provides a forum for researchers and practitioners for the publication of innovative scholarly research, which contributes to the adoption of a new holistic managerial approach that ensures a technologically, economically, socially and ecologically acceptable deployment of new technologies in business practice.

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# The E-Commerce Supply Chain Management in African Countries: The Case of Jumia

**Papa Semou Faye<sup>1</sup>, Ngomah Le Temps Decide Amour Prestige<sup>2</sup>, and Diallo Akessi Dzenabou Soraya<sup>3</sup>**

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## ABSTRACT

This study draws the outlines of what will be tomorrow the landscape of e-commerce Supply Chain in African countries. Companies wishing to sustain their activity must strive to regularly adapt their strategy to follow changes in the behavior of their customers. E-commerce players are today faced with a double challenge. The first is to enhance the quality of services for e-shoppers who are increasingly demanding. The other important aspect is the implementation of an effective logistic solution, this includes the management of stocks and supplies as well as deliveries and returns. The giants of e-commerce such as Alibaba (China) and JUMIA (Africa) have understood. They have invested heavily to take a competitive advantage over their counterparts, maximally optimizing their supply chain. In most cities, they become even logistics actors, internalizing of more the logistic function.

**Keywords:** Supply chain management, JUMIA (Africa), E-commerce, Logistic function

## I. INTRODUCTION

The supply chain is facing a metamorphosis, offering more flexibility to the final consumer. After several years, e-commerce, which prospects are always favorable, could enter a phase of more moderate but

certainly enviable progress in developing countries over the next three years. It will be accompanied by a reconfiguration of the landscape, distinctive markets. Already, some movements are at work: impact of the cross-channel on the organizational models of Supply Chain, the transformation of some process, new tools, strategic moves of the logistics service providers, the rise of m-commerce (especially in Africa). According to forecasts of the World Bank, 6 of the 12 global economies showing growth between 2014 and 2017 are on the African continent. Therefore, it is not surprising to see a growing number of firms. With a growing population, the emergence of a middle class, the gradual democratization of the internet and mobile, Africa seems at first all conditions so that the sector of e-commerce develops there.

Online auction sites are in full progress on the continent. These new economic players provide services adapted to African realities and local needs while maintaining quality standards. Online purchases are little by little in the consumption habits of the population of major African urban centers. The classic distribution leaders must deal with this new situation. Despite the absence of electronic payment systems, appropriate and low internet access, more and more African entrepreneurs are entering trade online or e-commerce. This dynamism is due to several objective factors and common to most of the

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countries of the continent: lack of quality commercial infrastructure, the increasing of people connected to the Internet, the creation of a new middle class young and eager for consumption, the ability of the population to quickly adopt technological innovations.

## **II. THEORETICAL BASIS**

### **1. Omni-channel**

The Omnichannel is today the new model of customer relationship? Once again, many sales channels are involved in the sales process, but as suggests the term Omni, consumers are using all channels available to them. The customer can purchase using all channels and all the information on the purchase process will be available at all levels, ideally in real-time. Many retailers have already adopted this strategy. They integrate their online and in-store channel to leverage both their scope to the clients the advantage conferred by the Internet to increase their income.

### **2. Multi-channel**

Multichannel was used in multi circuit distribution and sales channels. As the term suggests, various channels are involved in the business processes. Multichannel is characterized by processes in silos, meaning that channels exist side by side without interaction between them. Customers can't buy using several channels, such as order online and remove in-store. In other words, the channels are not integrated. From the point of view of the consumer purchase preferences, this model today shows its limits.

### **3. Cross-channel**

Cross-channel is a strategy that is widespread in e-commerce, consisting to place the customer at the Court of the sign, regardless of the distribution channel it uses. It allows the different channels of distribution of a business (physical store, catalog, website, etc.) to work together rather than compete. With the emergence of the Internet, many distribution companies have seen in online trade a complementary way to boost their sales. The first merchant websites are thus developed without direct links with physical sales locations. There was a talk of multi-channel strategy, where two channels of sale entered in competition with no interaction. This strategy is now exceeded by the cross-channel strategy. The latter merges online and offline by making each other's complementary sales channel. Thus, can a customer now discover a product catalog, order it on the web site and remove in-store?

### **The supply chain of the e-commerce in developing countries**

#### **1. The factors favorable to the emergence of e-commerce**

Growth rate lightning predicted to e-commerce is the result of a combination of favorable factors that transformed little by little the African consumer habits, making them less challenging to modern technologies and more eager for brands and products international. The dramatic breakthrough of mobile is the main engine: with 350 million mobile phones on the continent by 2017, the market of mobile services is booming. To date, nearly 12% consumers of French speaking Africa have already made purchases via their mobile. Not to mention comparable breakthrough, Internet penetration on the continent has also paved the way for e-commerce for the 20% of Africans now connected to the canvas. Paradoxically, this fertile ground for the emergence of the sector is partly because of shortfalls inherent to the African environment. Restricted access to traditional means of payment is the first brake to work around: in question, the banking rate very low in Africa (about 12%), opening a bank account is often restricted to a congruent portion of the population.



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## 2. The impact of developments in e-commerce on the logistics chain

We hear more and more these concepts (Multichannel, cross-canal, Omni-canal...). They refer to the multiplication of distribution channels and their interaction. For many pure plays, therefore more question of merely collect online orders to be sent directly to the customer's home. May as well buy in store on the web and want to pick up his parcel in a relay point or directly in his mailbox. This implies a reorganization in depth of the chain in its entirety, the so-called SCM planning.

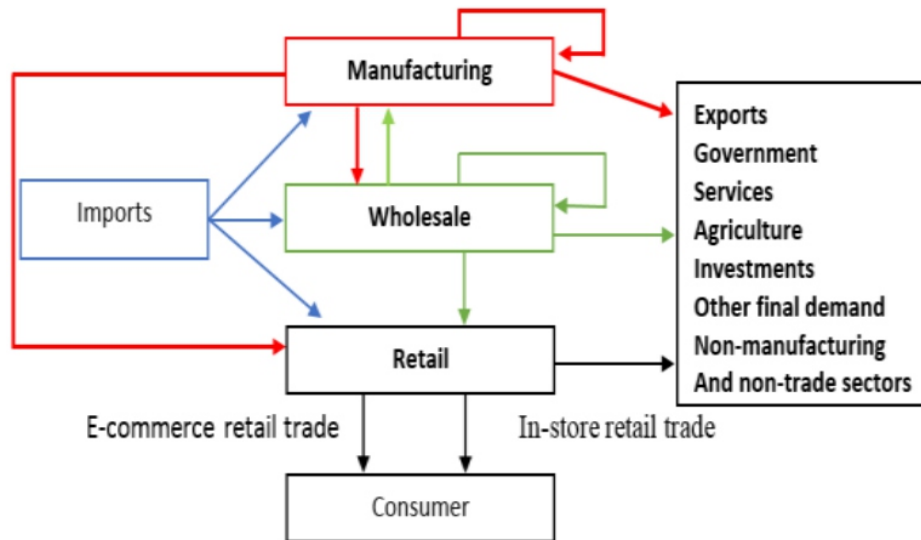


Fig.1. E-commerce supply chain retail trade

## 3. How to find the balance between responsiveness and profitability

To preserve margins as possible, many e-commerce companies seek to reduce their stock while now excellent responsiveness and attractive delivery times, this last parameter obviously part of strategic logistics KPIs. The volume of sales is important, more inventory management is delicate. Selling online allows users to purchase 24 hours / 24 and almost anywhere in France, increasing considerably the number of orders. But the logistics perfectly set APS software used to achieve these objectives. These tools come in addition to the conventional ERP and allow to plan the activity of way closer to reality, they bring additional flexibility which was until then default to frozen management packages.

## 4. Delivery management

The web customers buy differently, wish to be delivered as soon as possible... And in the place of their choice! The latest studies show us that e-shoppers prefer delivery relay point. It, therefore, becomes essential to have a specific Transport Management System solution for dashboard capable of reproducing in a clear and straightforward way the complexity of follow-up and the management of transport logistics. Because if in the traditional trade customer goes to the goods with e-commerce distances increase because the product going to the consumer resulting in a reversal of the physical flow on the logistic part downstream.

## 5. The Warehouse Management System, for a high-performance warehouse

At the heart of e-commerce activity is obviously the warehouse, this platform that requires a flawless organization to respond to these new challenges that online sales offer e-tailers. Shop beauty products sought at attractive rates, will not prevail without a perfect management of the different flows linked to the supply, storage, preparation of orders and shipping them. Is the responsiveness of the company

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company towards its clients and in this field approximations have unfortunate consequences on the brand image of an online store quickly? The more developed and sophisticated WMS can categorize, group and organize the commands to improve the levels of productivity and profitability in the face of this increase in online sales.

### **III. METHODOLOGY**

#### **1. Ever shorter delivery times**

Yet new practices two or three years ago are gradually becoming trends of the sector. The same-day delivery is democratized, as delivery in an hour. Amazon is one of the forerunners with its premium Now service. More and more innovative startups are positioning themselves on the logistics of the final kilometer or the delivery of specific products (fresh, fragile...). Others focus on the sharing economy and the concept of crowd shipping which is to carry its parcels by individuals.

#### **2. Urban logistics in full metamorphosis**

This e-commerce growth, combined with the increase in urban populations, upsets the Organization of logistics at the heart of the cities. Warehouses of smaller multiply at the entrance of the large metropolises. At the heart of the inner cities, fleets of electric vehicles, as well as delivery boys on the bike or on foot, patrol the streets. Storage of a new kind (hybrid, to floors...), as well as areas of original delivery (transformed into unloading docks parking locations), are also emerging.

#### **3. Impact of modern technologies at the heart of the logistics trades**

Robotization and automation are used to reduce costs significantly in the warehouses. Big Data and artificial intelligence also allow an improvement of the processes of the supply chain. Through the analysis of data, in real time and the machine learning, it is now possible to anticipate and predict stock management, optimize routes and thus reduce the time of delivery. Changes the appearance of connected objects, be it in warehouses or customers, also structurally chain, storage up to after-sales. Tomorrow, those are deliveries by drone or by an autonomous car that will take place.

#### **Case study: JUMIA Africa**

The company founded in 2012 by AIG in Lagos, is now present in 10 African countries. Through innovation and the adaptation of the e-commerce model in the African market, JUMIA became a successful example and symbol of a connected Africa which started shopping online. JUMIA cart is one of the most popular in Africa. For thousands of Africans in general, the carriage and the rest of the logo of the company are synonymous with bargains on the internet. JUMIA arrived and did a risky bet to adopt e-commerce in Africa which had then only a few users. Worst e-commerce then rhymed with fraud and scam, and the task looked difficult to win the trust of customers.

#### **1. The payment method "CASH ON DELIVERY"**

JUMIA success relies heavily on the agility demonstrated by the company to adapt to local realities. Thus, far from copy and to impose the traditional Western model of e-commerce, JUMIA appropriated cultural differences to provide adequate service to its customers. Cash on delivery payment is at the top of these adaptations. This payment method that allows the customer to pay the delivered article if it corresponds to his expectations, contributed substantially to the rise of the e-retailer.

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## **2. Logistical challenges**

Early on, the challenges related to the logistical activity requirements and the availability of the products proved to be persistent. However, the measures taken by the company quickly proved very effective. Upgrading providers then, the creation of an entity dedicated to the logistics with a fleet owner, helped ensure significant delivery delays. Then, the training of providers in the management of stocks and their shops on the platform (seller-center) has greatly improved the procurement process. Finally, the search for international partners up the representation for several brands such as INTEX in August 2015 and Decathlon more recently in January, allows JUMIA products often found locally.

## **3. A positive impact for African companies**

If the supermarket online today, assorted more 60 000 articles, it is thanks to this privileged relationship it maintains with the SME which sell on its platform. Since 2013, several of its suppliers had to hire additional staff to cope with the growth of their activities, stimulated by collaboration with JUMIA. Thus, implicitly, and more of its 300 employees, the supermarket online promotes the creation of indirect jobs. Moreover, its marketplace has become a powerful tool for helping entrepreneurship. It reduces in addition to national geography (by expanding the catchment areas), the obstacles that may involve the creation and the physical installation of a trade for smaller entrepreneurs.

## **IV. FINDINGS**

The world of commerce B2B (business to business) and B2C (business to consumer) is changing rapidly, and this trend will only increase in the coming years. Today, the customer aspires to a purchasing experience homogeneous on all channels of retail - online, offline, or a combination of the two. The retail Omni means seamless integration of the customer experience across all channels of interaction - in-store, on the Web and via mobile devices. Because customers use virtually every channel available purchase, the companies should be ubiquitous. Now, the buying process is unpredictable. It became dynamic, carried by a strong rise of the Internet and mobile use, and features of more points of contact than before. Moreover, thanks to social media, consumers now have their word to say. They can compare the different offers and decide which suits them best. If a company is not visible or does not show a strong mobile presence online, it inevitably loses market share. If these concepts delight the customers and now JUMIA followers, they also manage to seduce international brands.

## **V. CONCLUSION**

With a population rapidly growing, the emergence of a large middle class and a growing number of Internet users, the evolution of virtual trade seems well partly on the continent. However, the lack of confidence in the payment system, the logistical challenges, or even the risk of fraudulent transactions is likely to be obstacles to the development of this new digital economy. So far, Africa online business represents only 2% of the global market, growth prospects remain promising in a continent where everything remains to be done and to build. In addition, it is very important to consider green supply chain essential to the issues in the sustainable development process. The future is the ability to process information or big data, and share them effectively with the various interlocutors that are suppliers, consumers, and logistics operators.

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# Effect of Logistics Practices on Supply Chain Performance of Selected Businesses in Kigali City Market (KCM)

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## ABSTRACT

This study examined the effect of logistics practices on supply chain performance, a case study of selected businesses in KCM. It was done by establishing the relationship/effect between logistics practices and supply chain performance. The study population was 400 selected businesses in KCM. A sample size of 88 was purposively chosen. A stratified random sampling was used to select sample respondents in each stratum, while simple random sampling technique was used to randomly select respondents in each stratum. Secondary data were collected through the review of the related literature and studies, while Primary data was collected using research questionnaires, whose validity was checked using content validity. Collected data were computed in SPSS. Linear regression analysis was used to establish the relationship between the variables and the predicting factors in supply chain performance. Findings indicated that logistics practices had a significant effect on the performance of supply chain. The study concluded that logistics practices had a significant impact on the supply chain performance of the selected businesses at the KCM and that enhancing logistics practices in a local market would improve the supply chain performance by a larger margin in agile logistics ( $\beta=.722$ ), followed by integrated logistics ( $\beta=.632$ ) and lastly lean logistics ( $\beta=.535$ ). It was then recommended that the selected businesses at the KCM should capitalize on information sharing so as to satisfy customer needs currently and in future so as to increase market share.

**Keywords:** logistics, practices, supply, chain, performance, integration, practices, lean, practices, agile,

## I. INTRODUCTION

As competition in the service and business sector constantly increases, the ability of understanding the customers, making sure they are satisfied with services provided, has become of significance to companies in their logistics practices and supply chain management and performance. Dwevedi (2005) explains practices of logistics as a function of integration that comprises all activities of logistics, and also integrates them with information technology, marketing, finance, manufacturing and sales functions. They include lean logistics, agile logistics and integrated logistics. For Chen and Paulraj (2004), integrated logistics is a process of acquiring the capital, forecasting clients' preferences and tastes, information, people, technologies and materials necessary to meet those tastes and preferences, and utilizing the network to timely fulfil the customer request. Lean logistics means a way of identifying and removing wasteful activities from the supply chain in order to boost speedy product flow (Vonderembse et al. 2006). Agile logistics refers to a strategy of operation, flexibility and caring for responsiveness of customers within a supply chain (Beamon, 2001).

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Performance of supply chain on the other hand, refers to how different processes of organisation's supply chain function (Eltantawy, 2011). Different practices of supply chain, therefore, are important to ensure right supply chain relationships. Zhu (2004) states that performance of the Supply Chain will only be achieved with practices of logistics like lean basing on the supply chain management goals such as waste reduction, time reduction, flexibility response, and cost reduction. The resulting impacts for the company are:- improved cash flows, higher return on assets, improved working capital and revenue profit growth, while the client benefits are; new product or service quality, improved timelines, improved product, improved flexibility and improved value (Subramaniam, 2009). In ensuring that performance of supply chain for a company is achieved as planned, an established measure should be in place, for instance, measures for internal controls/systems, innovation measures, customers and financial measures (Subramaniam, 2009).

Kigali City Market (KCM) is a complex commercial building constituting numerous businesses ranging from suppliers, whole sellers, and retailers. It is located in the Kigali City Centre in Nyarugenge district. It has diverse practices of logistics. Because of its business nature, its supply chain and performance requires an established system of logistics practices. This would enable information sharing among different businesses to their customers. Despite this, KCM has a challenge of Logistics Integration on information leverage power that hinders the enhancement performance of supply chain. Yet, Rwanda has adopted a philosophy for ensuring that all aspects relating to customer service are done with efficiency and effectiveness. This implies a supply chain issue that relates to untimely service provision, inefficient layouts and cumbersome processes. This study therefore, seeks to examine comprehensively how practices of logistics integration, lean and agile in KCM affect the supply chain performance of selected businesses

### ***Statement of the Problem***

Rwanda as a landlocked country experiences expensive access to world markets for goods and services using different supply chain practices. This implies a challenge of shipping of products to its markets, including KCM. The current literature focusses on the reasons why companies attain their supply chain performance instead of elaborating the challenges that logistics practices are facing and their effects (Cecere, 2012). Practices of logistics that include lean, agile and integration practices affect performance of a supply chain (Ristovska et al. 2017). Macharia (2014) found that in developed countries, lean logistics practices were mostly used than in developing countries as business companies aimed at ensuring efficiency and waste reduction. Tukamuhabwa (2011) declared that agile logistic practices are practiced poorly. This study identifies the above literature as having gaps in regard to which type of logistics practices affects the supply chain performance and especially in the KCM. This study therefore sought to assess the effect of logistics management practices on supply chain performance of KCM selected businesses.

### ***Research Questions***

1. What is the effect of integrated logistics on supply chain performance of KCM?
2. What is the effect of agile logistics on supply chain performance of KCM?
3. What is the effect of lean logistics on supply chain performance of KCM?

## **II. LITERATURE REVIEW**

The underlying theories that guided this study were the stakeholder theory, institutional theory, and the just-in time theory. According to the stakeholders' theory, an organization has relationships with many

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constituent groups and that it can engender and maintain the support of these groups by considering and balancing their relevant interests (Clarkson & Erdogan, 1998). It looks at the relationships between an organization and its internal and external environment, how these relationships affect the organization's mode of conducting its activities. Examples of stakeholders of a business include suppliers, customers, stockholders, employees, government, non-profit community organizations and the local community among others. Institutional theory looks at processes by which rules, norms, routines and structures are placed to guide behaviour that is acceptable. The just-in-time theory deals with working without inventories and ensures reception and delivery of materials when required (Kee-Hung & Cheng, 2009).

### **Logistics practices and Supply Chain Performance**

The Logistics integration is related to the performance of supply chain. According to Torres (2012), customers integration in the supply chain grants opportunity for business companies to know the needs of customers, aiming at better services. The integration of customers in the supply chain gives the opportunity for firms to have an overview of the requirements and their specific needs giving them the advantage of serving them better. Gligor and Holcomb (2014) assert that capabilities of integrated logistics acts to decrease non-value activities and effort wastage within the supply chain. Agile Logistics is a strategy that stipulates timely access to information on customer preferences, competitive action and market trends in order to be responsive to demand change by introducing new products, emphasises information that facilitates co-ordination and collaboration with partners such as, lead times, inventory for quick designing, timely schedules exchange. It is hinged on market sensitive, network based, and process alignment, and demand sensitive and anticipates the needs of customers through forecasting, gathering information, and management of inventory (Murthy, 2006; Sher, 2016).

Lean logistics help companies in meeting customers' demands, gaining market share, increasing cash flows, increasing velocity, increasing profitability, and decreasing the working capital, allows boosting the firms, efficiency, waste reduction, time waste reduction, restructures the firm into streams of value and adopting practices which rise value, ensuring that the organization and its suppliers have a shared system that enables them to work together, seeks to create value to the customer perspective other than the producer perspective (Dreckshage & Kerber, 20011; Macharia, 2014; Hines, Holweg & Rich, 2004). Hugos (2011) emphasized that SMEs have challenges with integrating their supply chains internally and externally. Yet, the supply chain performance aims at time reduction, reduction of unit cost, waste reduction and flexible response that leads to higher return on assets, improved cash flows, revenue profit growth, improved working capital and margins, while the clients gain through better flexibility, better value, new product or service quality, better product, and better timelines. Thus, in order for a firm to attain expected performance of supply chain, it must have measures in place such as internal control systems, financial, innovation measures, and measures related to customers (Subramanian, 2009).

Probir (2013) in his study titled Supply chain integration: African survey, found a significant negative correlation between the length of relationship with suppliers and performance measures such as total logistics costs, on-time delivery and rate of return. Gligor and Holcomb (2014) carried out a research in East Africa on a comparative analysis of integration logistics and supply chain management in manufacturing and service industries using qualitative and quantitative research methods and found that Integrated logistics capabilities work on means to decrease wasted effort and non-value activities across the supply chain. Another study was conducted by Hugos (2011) in Small and Medium Enterprise (SMEs) in Kenya using mixed methods approach. Hugos found that the firms faced major challenges in integrating their supply chains internally and with other supply chain partners.

A study by Beamon (1998) found that supply chain practices and information System (IS) capability for agility act together to affect a positive relationship between ASC strategy and supply chain performance. For Tukamuhabwa (2011), agile logistic practices are practiced poorly. There is limitation on research regarding organization, generalization of potentials and customization of performance of supply chain prompting more work to build upon their findings.

### III. METHODOLOGY

A regression analysis was performed in this study to quantitatively establish how logistics practices affect the supply chain performance of KCM selected businesses. The study population was 400 selected businesses which include 300 retailers, 47 importers and 53 wholesalers. The sample size was 88 (12 Wholesales, 66 Retailers and 10 Importers) and were selected using the purposive and stratified random sampling techniques. Primary data was collected. Collected data were processed using SPSS and statistically analysed using leaner regressions to establish predicting factors in supply chain performance. The Linear regression model  $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$  was used.

### IV. DATA PRESENTATION, ANALYSIS AND DISCUSSION

In this section, Regression analysis was conducted to investigate the statistical effect of each logistics practices on supply chain performance of KCM.

#### Regression analysis on Integration Logistics Practices and Supply chain performance

Model	Unstandardized Coefficients		Stand. Coef.	t	Sig.
	B	Std. Er.	Beta		
1(Constant) Integrated Logistics Practices	2.153	1.121		1.921	.000
	.632	.134	.711	4.716	.002
R	.844				
R-squared	0.712	Mean dependent variable		1.428	
Adjusted R-squared	0.701	S.D. dependent var		0.405	
F-statistics	7.586	Durbin-Watson statistic		1.547	
Prob(F-statistics)	0.004	Standard Error of Estimate		0.257	

Source: Survey Data (2019)

From table above, it is observed that  $R^2$  which is the model's goodness of fit for the regression line obtained is 0.712. This means that 71.2% of variation in supply chain performance of KCM can be explained by the integrated logistics practices. The correlation coefficient between integrated logistics practices and supply chain performance of KCM is 0.844. Statistically, since  $R=0.844$  is closer to 1, this finding shows a strong positive association between integrated logistics practices and supply chain performance of KCM. It is noted that there is a positive unstandardized beta coefficient of 0.632 which indicates that a unit change in integrated logistics practices will increase supply chain performance of KCM by 0.632 units, while keeping the effect of lean logistics practices and agile logistics practices constant. With a p-value of  $0.002 < 0.05$ , in column 6, it can be concluded that integrated logistics practices have statistically significant effect on supply chain performance of KCM. This concurs with the findings from a study by Gligor and Holcomb (2014) that capability of integrated logistics acts to decrease non-value activities and effort wastage within the supply chain.



### Regression analysis on Lean Logistics Practices and Supply chain performance

Model	Unstandardized Coefficients		Stand. Coef.	T	Sig.
	B	Std. Er.	Beta		
1(Constant) Lean Logistics Practices	2.414	.865		2.475	.000
	.535	.245	.603	2.182	.002
R	.874				
R-squared	0.764	Mean dependent variable		1.934	
Adjusted R-squared	0.756	S.D. dependent var		0.752	
F-statistics	8.482	Durbin-Watson statistic		1.854	
Prob(F-statistics)	0.003	Standard Error of Estimate		0.247	

Source: Survey Data (2019)

The table above displays the summary of the model used to investigate the effect of lean logistics on the supply chain performance of KCM. From column 2, it is observed that  $R^2$  which is the model's goodness of fit for the regression line obtained is 0.764. This means that 76.4% of variation in supply chain performance of KCM is explained by the lean logistics. The correlation coefficient between lean logistics and supply chain performance of KCM is 0.874. Statistically, since  $R=0.874$  is closer to 1, this finding shows a strong positive association between lean logistics and supply chain performance of KCM selected businesses. Since the computed F statistic (1, 399) is 8.482 while the overall regression relationship p-value is ( $p = 0.003$ ), which is less than 0.05 the level of significance, the model used is a best-fit for the data used, given all the assumptions of normality surrounding the model. It can also be observed that there is a positive unstandardized beta coefficient of 0.535. This indicates that a unit change in lean logistics will increase supply chain performance of KCM by 0.535 units, while keeping the effect of integrated logistics practices and agile logistics constant. With a p-value of  $0.002 < 0.05$ , in column 6, it can be concluded that lean logistics have statistically significant effect on supply chain performance of KCM selected business. This finding supports Dreckshage and Kerber (2011) who highlighted that Lean logistics was used by companies because of its benefits of meeting customers' demands, gaining markets share, increasing cash flows, increasing profitability, and decreasing the working capital.

### Regression Analysis on Agile Logistics and Supply chain performance of KCM

Model	Unstandardized Coefficients		Stand. Coef.	t	Sig.
	B	Std. Er.	Beta		
1(Constant)	2.137	1.031		2.073	.000
Agile Logistics Practices	.722	.352	.701	2.054	.003
R	.894				
R-squared	0.799	Mean dependent variable		1.676	
Adjusted R-squared	0.792	S.D. dependent var		0.275	
F-statistics	8.214	Durbin-Watson statistic		1.668	
Prob(F-statistics)	0.003	Standard Error of Estimate		0.254	

Source: Survey Data (2019)

The above table displays the summary of the model used which assess the effect of agile logistics on the supply chain performance of KCM selected businesses. From column 2, it is observed that  $R^2$  obtained is 0.799. This means that 79.9% of variation in supply chain performance of KCM selected businesses is accounted to agile logistics practices. The correlation coefficient between agile logistics and supply chain performance of KCM is 0.894. Statistically, since  $R=0.894$  is closer to 1, this finding shows a

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strong positive association between agile logistics and supply chain performance of KCM selected businesses. Since the computed F statistic is 8.214 while the overall regression relationship p-value is ( $p = 0.003$ ), which is less than 0.05 the level of significance, the model used is a best-fit for the data used, given all the assumptions of normality surrounding the model. Given the Durbin-Watson statistic of  $1.668 < 2.0$ , there is a positive serial correlation between agile logistics and supply chain performance of KCM. This probably explains why the model did not capture much variation in supply chain performance of KCM. The standard error estimate of 0.257, measuring the standard deviation around the fitted line, suggests that 95% of the prediction error in supply chain performance of KCM is much less than  $\pm 1.96 (0.257) = 0.504$ . From this finding, the significance can be extended to 99.99% confidence interval, since p-value of 0.003 remains far much less than 0.01 or a significance level of 1%. From table 4.6, the regression equation modelled to understand this relationship is as indicated in Eq.(vii).

$$Y = 2.137 + 0.722X_3 \dots\dots\dots \text{Eq.(vii)}$$

where Y is supply chain performance of Kigali City Market and  $X_3$  is agile logistics. From Eq. (vii), it is noted that there is a positive unstandardized beta coefficient of 0.722. This indicates that a unit change in agile logistics will increase supply chain performance of KCM by 0.722 units, while keeping the effect of integrated logistics practices, lean logistics and institutional support constant. With a p-value of  $0.003 < 0.05$ , in column 6, it can be concluded that agile logistics have statistically significant influence on supply chain performance of Kigali City Ma ( $F=7.586$ ,  $R^2 = 0.712$ ,  $\text{Sig}=0.004$  at  $\beta=0.05$ ). This study results thus indicate that improvements in agile logistics have significant effect on supply chain performance of Kigali City Market. This finding corroborates the finding by Macharia (2014) who said that Lean logistics plays an essential role in enabling firms to minimize waste and enhance efficiency in supply chain management. Lean logistics aim at integrating the functional areas of an organization by ensuring that the organization and its suppliers have a shared system that enables them to work together. This enables the organization to deliver tailored goods and services that specifically meets customer needs. It also minimizes lean time because goods are procured once an order has been placed. The findings also compare well with the findings of Hines, Holweg and Rich (2004) of African service firms found that lean management seeks to create value to the customer perspective other than the producer perspective by redesigning the organization into value streams and adopting practices that add value. Similarly, Christopher (2000) found agile Logistics as an important tool for measuring systems of performance in businesses as it provides timely feedback. Subramaniam (2009), in support of this finding, also stressed that financial measures in the companies' supply chain refer to how to improve cash flows, revenue growth, and how to add value to shareholders.

## V. CONCLUSIONS AND RECOMMENDATIONS

This study was conducted with the aim of finding out the effects logistics practices on the performance of the supply chain of the selected businesses in KCM. The study employed quantitative methods to collect and analyse primary data. Literature analysis was conducted so as to find out research gaps and evidences. A research instrument was designed in form of questionnaire to collect primary data. Regression analysis was used to establish the effects and the major findings were: Integrated logistics practices had a statistically significant effect on supply chain performance of KCM selected businesses with a regression coefficient of  $\beta=.632$ . Lean logistics had a statistically significant effect on supply chain performance of KCM selected businesses with a regression coefficient of  $\beta=.535$ . Agile logistics had a statistically significant effect on supply chain performance of KCM with a regression coefficient of  $\beta=.722$ . The study concluded that Logistics practices had a significant effect on the supply chain performance of the selected businesses in KCM. Besides, agile logistics practices were more used than

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the integration and lean practices in the supply chain of the selected businesses in KCM. The implication of these findings is that selected businesses at the Kigali City Market are affected by the way they implement the logistics practices of integration, lean and agile. Another implication is that the findings add new knowledge in the field of logistics practices and supply chain performance in less developed countries like Rwanda. The study recommended that the KCM retailers, wholesalers and importers should improve and enhance on the use of integration and lean logistics practices the same way they use agile logistics practices if they are to achieve maximum supply chain performance. The KCM selected businesses should capitalize on information sharing so as to satisfy customer needs currently and in future, hence, increase market share.

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# The Engine of Peasant Income of Heilongjiang Province China

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## ABSTRACT

The paper can be divided into four parts. In the first section, it introduces background which is about reform and development of rural economic policy and peasant income post-1978 in China. Then, the paper uses data and graphs to illustrate peasant income situation in Heilongjiang Province since 1978. PCA method is applied to analyze traditional peasant income and building dummy variable regression model to express wage income importance for a peasant family in the third part. At last, to give some suggestions those can drive peasant income and improve farmers' living level.

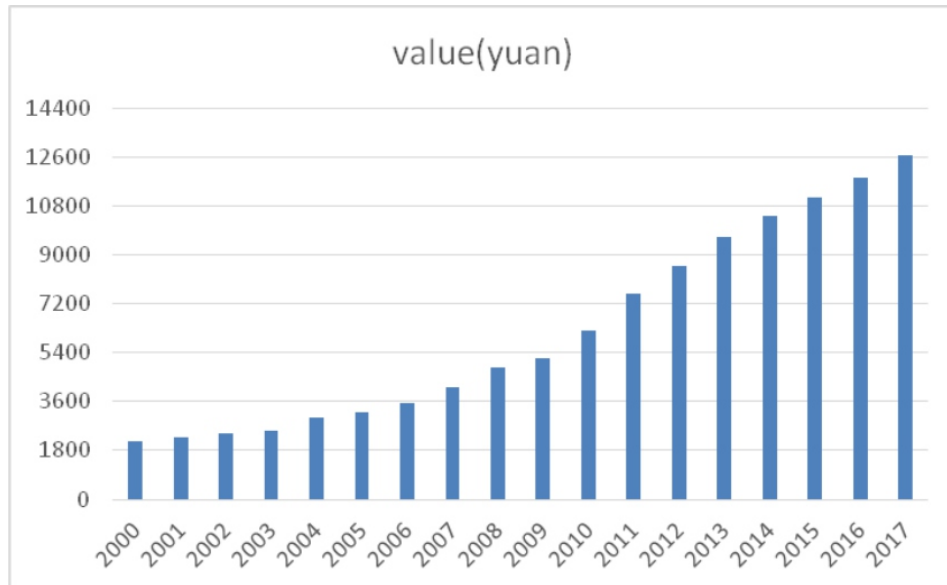
**Keywords:** peasant income; agriculture; countryside; farmer

## I. INTRODUCTION

Three agricultural issues concerning “agriculture, countryside and farmers” are still hot social discussions in China. Therefore, increasing peasant income is vital to resolve three agricultural issues. With the deepening opening up and reform in mainland China, agricultural economy gets better. However, peasant income level is still low. Heilongjiang Province has the advantages of agriculture because of its natural endowments. In 2017, there were about 1.5 million farmers, it accounted for 39.9% of the total population in Heilongjiang Province. Hence, peasant income is not only related to farmers' living standards, but also influences on the whole economy in Heilongjiang. Currently peasant net income is not at a high line in Heilongjiang province. Specifically, in 2017 peasant net income in Heilongjiang is 13.4 thousand yuan. It is a bit lower than the average value 14.3 thousand yuan of the whole country, it is obviously less than the value in Beijing, Zhenjiang and so on. Recently, for the labor mobility between rural and urban area, most farmers who are migrant workers choose to work in a city to earn more money which is so called wage income. In Heilongjiang Province, the number of migrant workers is 9.55 million in 2016, it means 50% people in rural area are migrant workers. Wage income is a vital part of peasant income. Hence the paper from a comprehensive perspective explains peasant income by PCA and dummy variable regression model.

Peasant income in Heilongjiang Province from 2000 to 2017 in table 1 can be drawn as below picture,

**Table1: Per Capital Annual Net Income of Rural Households in Heilongjiang**



Note: data from <Heilongjiang Statistical Yearbook 2017>

Overall, the trend of peasant net income increased during given period. Minutely, the lowest point of peasant net income is 2148 in 2000, the top one is 12665 in 2017. From 2001, value of per capita peasant income is up year by year, it should be attributed to some positive policies made by government. Specifically, in 2006 agricultural taxation is canceled and farmland policies are also revised. Government also has more subsidies to peasants which makes peasants be more confident for their income from rural household business.

### Empirical Study

Data in PCA model is from 2000 to 2017 in «Heilongjiang Statistical Yearbook»2017. Minutely, per capita annual net income of rural households (Y) is dependent variable, independent variables include six variables: the first three ones group by type of income, primary industry GDP per capita (X<sub>1</sub>); secondary industry GDP per capita (X<sub>2</sub>); tertiary industry GDP per capita (X<sub>3</sub>); investment in rural area (X<sub>4</sub>); urban-rural resident income difference (X<sub>5</sub>); main agricultural crops planting area in Heilongjiang (X<sub>6</sub>). Then the model can be written as: Y=f(X<sub>1</sub>,X<sub>2</sub>,X<sub>3</sub>,X<sub>4</sub>,X<sub>5</sub>,X<sub>6</sub>). Urban-rural income inequality(X<sub>5</sub>) can be told by urban-rural income ratio.

### Estimation

First and foremost, regression between dependent variable and independent variables. The model can be described as:

$$\hat{Y} = -2.71 + 1.27X_1 + 3.63X_2 - 0.12X_3 + 0.002X_4 + 4.51X_5 - 0.001X_6$$

P	(0.61)	(0.002)	(0.25)	(0.59)	(0.39)	(0.29)	(0.47)
R <sup>2</sup>	=0.99	F=313.84	D.W.=1.71				

From the results the goodness of fit R<sup>2</sup>=0.99, but only X<sub>1</sub> is significant. All X<sub>2</sub>,X<sub>3</sub>,X<sub>4</sub>,X<sub>5</sub> and X<sub>6</sub> fail the t-statistics, in other words, there exists multicollinearity in the regression process. Then, do the PCA. According to table 3, we get the results there are two characteristic roots higher than 1 and cumulative proportion of first two characteristic roots reached 99%, Hence the first two principal components can reflect the original six variables 99% information, in other words, Two principal components are chosen as follow.

**Table 2: PCA Results**

number	Value	Proportion	Cumulative proportion
1	4.54	0.75	0.7574
2	1.33	0.22	0.9792
3	0.08	0.01	0.9932
4	0.02	0.004	0.9979
5	0.01	0.001	0.9996
6	0.002	0.004	1.0000

Note: results from eviews analysis

Most importantly, when I select two principal components, the two ones should be rewritten by the two equations below,

$$F_1 = 0.45ZX_1 + 0.46ZX_2 + 0.46ZX_3 + 0.46ZX_4 + 0.38ZX_5 + 0.05ZX_6 \quad \textcircled{1}$$

$$F_2 = -0.20ZX_1 - 0.06ZX_2 - 0.08ZX_3 - 0.13ZX_4 + 0.45ZX_5 + 0.85ZX_6 \quad \textcircled{2}$$

In the two equations  $ZX_i$  ( $i=1,2,3,4,5,6$ ) represents standardization of original variables  $X_i$ .

Specifically, in equation ① it contains the main variables ( $X_1, X_2, X_3, X_4$ ), by contrast, the essential variables for equation ② are  $X_5$  and  $X_6$ . Using  $ZY$  illustrates the standardization of  $Y$ . Next step is to do a regression test to get the new model. From above process, the key point is standardization. Firstly, standardization formula is

$$Z_i = \frac{X_i - \mu_i}{\sqrt{\sigma_{ii}}}, \quad i=1,2,3,\dots,n, \text{ then getting expectation and variance results like this ,}$$

**Table 3: Expectation and Variance Results**

	Y	$X_1$	$X_2$	$X_3$	$X_4$	$X_5$	$X_6$
$\mu_i$	2415.00	1327.13	49.78	3238.45	11640825803	2.17	970398
$\sigma_{ii}$	—	1241.67	780.36	30.48	2265.13	9136367486	0.35

Note  $\mu_i$  is expectation;  $\sigma_{ii}$  is variance

After standardization for all variables, new regression model could be built as:

$$ZY = 0.47ZF_1 - 0.15F_2 + 5.54$$

$$P \quad (0.00) \quad (0.00) \quad (0.99)$$

$$R^2=0.98 \quad F=585.79$$

The new regression results can explain the by goodness of fit is 0.98, and all t-statistics value of  $F_i$  is significant. Hence the new regression model is better than previous one. The following step in the methodology is to change variables and find the suitable regression model,

$$\hat{Y} = 0.34X_1 + 8.94X_2 + 0.13X_3 + 0.003X_4 - 4.75X_5 + 0.007X_6 \quad \textcircled{3}$$

## II. RESULTS ANALYSIS

From the equation ③ we can get the empirical results, specifically the primary GDP per capita increases 1%, the peasant net income increases 0.34%; the secondary GDP per capita increases 1%, it increases peasant net income increases 8.94%. The effects of all independent variables can be ordered urban-rural

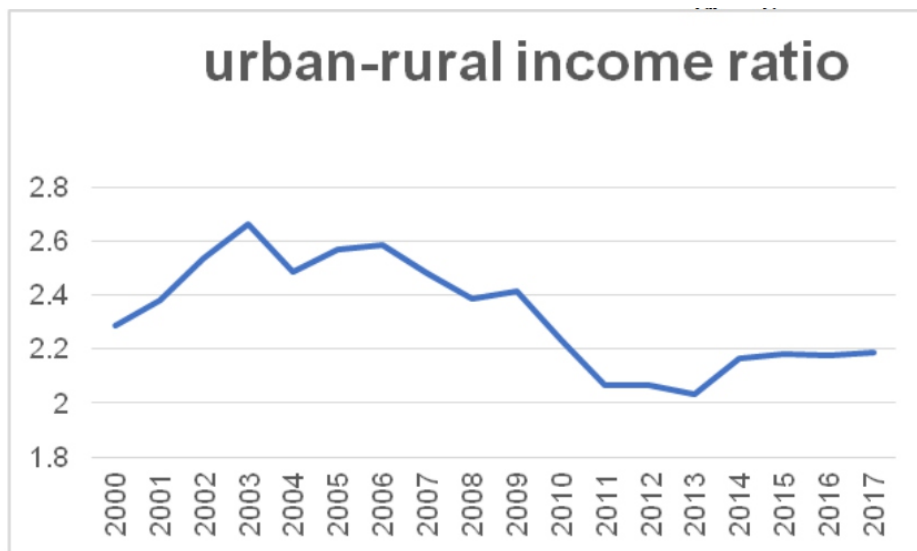
resident income difference ( $X_5$ ) secondary industry GDP per capita ( $X_2$ ) primary industry GDP per capita ( $X_1$ ) tertiary industry GDP per capita ( $X_3$ ) main agricultural crops planting area in Heilongjiang ( $X_6$ ) investment in rural area ( $X_4$ ). Getting a conclusion, regressors  $X_4$  and  $X_6$  have little impact on regression peasant net income, the effects caused by them can be ignored. Obviously, how to narrow gap of urban-rural income difference is vital to increase peasant income, this point will be discussed detailedly in next section.

### III. FINDINGS AND INTERPRETATION

Some differences are easily found between PCA and dummy variable regression model in the paper. In PCA model, dependent variable is per capita annual net income of rural household, while in dummy variable, it is annual total income of farm-family. To some extent, PCA method analyzes peasant income in Heilongjiang from a micro perspective, but dummy variable regression model expresses from a macro way. Generally speaking, data in these two models is also from different collected manners. Specifically, all data in PCA were collected from official statistical yearbook, and for data of dummy variable regression model, it is from the survey from the study areas. Initially, results analysis are given by PCA methodology that urban-rural peasant income gap can be as a important factor drives peasant income increase. Recently, some policies which are related to how to narrow the gap are promoted, from table 4 it can be seen, urban-rural income ration in Heilongjiang Province in 2000 was 2.2, the trend fluctuated from 2000 to 2017. It went up until 2009, reached the top which was 2.4. after 2009, the ratio is narrow.

In the picture, this trend fluctuated again. In 2009, the value was 2.4, a little smaller than that in 2003.

**Table4: Urban-Rural Income difference in Heilongjiang Province**



Note : Data Resources from «Heilongjiang Statistical Yearbook» 2017

Another regressor income from secondary industry also has great impact on farmers' income. Secondary industry is different from primary industry. It is the industrial sector of an economy that is dominated by the manufacture of finished products. Unlike a primary industry, which collects and produces raw materials for manufacture, a secondary industry makes products that are more likely to be consumed by individuals. Examples of secondary industry divisions include automobile manufacturing, steel production and telecommunications. Also called secondary sector of industry.<sup>1</sup> Therefore, this result also can be explained by the survey. From the survey, most of migrant workers in rural area are men who are manual labors. willing to choose some work from secondary industry, taking an example some men in



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study areas do some building work in a city. So this type of peasant income can be regarded as secondary industry. It can explain the reason and effect caused by the coefficient 8.94 of variable  $X_2$  in PCA model.

### **Limitations in the methods**

- PCA is applied in broad research area, however, there are two main shortcomings in my opinion. Firstly PCA does a standardization for each variable to eliminate the impact of different units of each variable. Whereas the standardization process make the different original data be similar, it causes a greater error.
- From another perspective, when we do a PCA, we also concern the cumulative proportion. If it reaches 85% above, we choose this variable as a principal component. However, it is possible to select more variables (all > 85%) to be as principal components. Therefore the role of PCA is not obvious in this situation.
- In dummy variable regression model, because all data was from the survey I set, it cannot get all accurate values. Some farmers can just tell an estimated values.
- Peasant Income Problems in Heilongjiang Province

### **Low Level of Peasant Income**

Although the figures show that the per capital annual net income of rural households in Heilongjiang Province has been increased for last 20 years, but a comparison with the same period per capital annual disposable income of urban households, we find out that the low level of peasant income in table 4 whose data can illustrate the problem. It accounted for the highest proportion 62.76% of disposable income of urban residents in 2000. During last 20 years, the per capita annual net income of farmers is less than half of the latter, especially in recent years: in 2008, the number is 41.93%. In 2009 this proportion dropped to 41.43 percent, the per capita net income of farmers in 2001 is 2280 yuan, only 42.02% of the disposable income of urban residents, the per capita net income of peasants was 2509 yuan in 2003, still well below the disposable income of urban residents (6679 yuan). And, from the calculation results of the income of farmers, because the net income includes both monetary income and in-kind income, so it is not disposable income. In the past few years, agricultural products prices fluctuated frequently, and even some kinds of products cannot be sold in time because of lower prices. However, in the calculation of the peasant net income, agricultural products which were not sold even included in income. Therefore, farmers disposable income is lower than the net income calculated.

### **Slow growth rate and unreasonable structure of peasant income**

Growth rate can illustrate increase directly, from table 6 grow rate of peasant income is volatile, in 2000 and 2017, the rate was negatively up. From 2000 to 2005, it decreased sharply, while from 2015 to 2017 the rate was down slowly. As we known from the <Heilongjiang Statistical Yearbook>, income from rural households business makes the main parts of peasant income. It can be divided into farming, forestry, animal husbandry and fishery and so on, but farming revenue is the key point for peasant income. It accounted for most proportion of peasant income and led to peasant income structure is unreasonable. Farmers depended on farming income more than others. Natural factors have significant impact on this kind of peasant income yet, in other words, there are some uncertainties for this part.

### **Reasons of Peasant Income Problems**

#### ***Price Factor***

Cause income from rural household business of peasant income is still an engine of peasant income in Heilongjiang, agricultural products prices influence peasant income obviously. Recently, its prices continue to be down gradually, and bring about peasant income to increase slowly. In addition to, agricultural structure is unreasonable either so that cannot satisfy the balance of demand and supply for agricultural products. This phenomenon also causes a lower price.

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The third reason which relates to price factor is Engel's Coefficient of urban households, which means the proportion of expense on food to the consumption expense.

### ***Policy Factor***

First and foremost, investment in agriculture by government is mainly from state financial support, including budget funding and extra-budgetary funds. The former refers to state budget expenditures directly appropriated funds for supporting agriculture, the latter is not involved in the national budget for fiscal funds invested for the development of agriculture. National budget expenditures directly appropriated funds for supporting agriculture, including Capital expenditures on Operating Expenses, agriculture, forestry, water conservancy and meteorological and the meteorological department of agriculture, forestry, water conservancy, agriculture, forestry departments and technology promotion. Therefore, directly used for agricultural support is so small that difficult to increase farmers' income. Then the lack of the necessary financial support. Currently, the contradiction between supply and demand of funds in rural areas is obvious. Rural economic development funds is not enough. Farmers and township enterprises are difficult to guarantee for loans. Approval of state-owned commercial bank loans and issuance of rights are so on concentrated that it restricts the loan flexibility and timeliness. It is not suited to farmers' loans which need in time, short-term, high-frequency and low risk.

### ***Technical Factor***

According to common estimations, the value of primary agricultural products after processing is up 0.38 yuan in Heilongjiang. But value adds 3.72 yuan in the US and 2.2 yuan in Japan. The ratio of the developed countries, both agricultural product processing output and agricultural output value add more than 1. In China it is only 0.43, in Heilongjiang Province, is only 0.4 In Heilongjiang Province, deep processing of agricultural products processed accounts for a less proportion of total processed products. Minutely, more roughing products and "tu" products are in the market, by contrast, less high-tech products. It is obvious to know that industrial chain for agricultural products is short, the transformation of value-added agricultural products is weak. For another drawback, agricultural products which bring limited income for farmers in Heilongjiang Province are sold in domestic market, not the foreign market. Taking soybean processing for example, Heilongjiang Province is the main soybean producing areas in China, which gets about 500 million tons of annual output of soybeans, but the proportion of products of primary processing of soybean is in a large part of the whole processing, otherwise, deep processing products account for only 5%. The majority of the factories produced two primary products which are Soybean oil and soybean meal. To sum up, technical factor is also a problem to influence peasant income in Heilongjiang.

### **Suggestions to Increase Peasant Income**

#### ***Promoting Urbanization to Narrow Urban-Rural Income Gap***

In the methodology part, urban-rural income difference has a negative impact on peasant income. In order to drive peasant income, narrow the gap is an effective way to achieve. Especially, policy which was promoted by government in Heilongjiang allowed farmers to work in the nearest town from their family. So urbanization also can be convenient for migrant workers to find a job easily.

How to realize urbanization can be from two aspects, firstly, reforming "hukou" system. "Hukou" is Chinese characteristic factor. It is obvious a barrier to accelerate urbanization and hinder rural labor transfer to a city. Therefore, the government in Heilongjiang should cancel hukou barrier so that realize perfect labor mobility between rural and urban sector. Secondly, we should understand what is the urbanization. It does not mean building the rural areas the same as big cities like Haerbin and Daqing in Heilongjiang. Additionally, urbanization should be according to the situation in rural areas and choose the way to realize it appropriately.

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During urbanization, small town target should be known as first. There are so many villages in Heilongjiang which have distinctive regional characteristics that suitable for the development of small town goal. Initially, expanding scale of small towns includes infrastructure construction and transport facilities. Then, focusing on closer small towns and villages so that develops cluster effect in rural areas in Heilongjiang. All these can help to make urbanization, in order to provide a healthy environment for peasants to earn more money.

#### ***Improving Construction of Agricultural Infrastructure***

Agricultural and rural infrastructure is so weak in rural areas in Heilongjiang that cannot make peasants be confident to face natural disasters. It also becomes a restriction of peasant income. So government in Heilongjiang should give more financial support to build these infrastructures. For details, the construction of rural roads, electricity, water supply, communications and so on. Small and medium-sized water conservancy projects should be also established, other ones which are varieties of planting and breeding industry, animal and plant protection should also be improved. These projects are relate to peasant income and also can enhance agricultural capacity to eliminate losses from natural disasters.

#### ***Encouraging Investment of Township and Village Enterprises (TVEs)***

Because of investment environment problem, TVEs in Heilongjiang Province developed slowly. TVEs as rural nonagricultural sector can afford more job opportunities to farmers. With development of rural economy, the number of TVEs increased. However, in rural areas the fruit of rural nonagricultural growth is not shared equally. It leads to peasant income increasing inequality. Especially, some local governments cannot realize the importance of TVEs and afford a healthy investment environment. Rural areas should be according to their own characteristics of industry, number of labor surplus and technical level developed TVEs. In Heilongjiang, accelerating the kind of TVEs dominated by the agricultural processing industry should be taken into first.

#### ***Adjusting Agricultural Products Price System***

To take measures to change the downward trend of peasant income from agricultural production. In recent years, agricultural prices continue to decrease which is the basic cause of the decline for peasants income in Heilongjiang Province. How to improve the prices of agricultural products in Heilongjiang Province, I deem, the following measures should be taken: firstly the policy which is quality products at higher prices, otherwise, at lower prices. It is a significant target which can guide farmers to adjust their structure of production so that to increase peasant revenue. Secondly, the implementation of the agricultural products of brand strategy should be encouraged, which improve the market competitiveness of agricultural products. At last, development characteristic economy of Heilongjiang Province, such as vigorously develop the Heilongjiang Province green food, increase farmers' income. From another view, in-depth reform of rural credit cooperatives is necessary for rising peasant income. It includes increasing rural credit financial funding for the adjustment of agricultural structure and solving the problem of farmers' loans. It also can encourage farmers to invest in their opinions.

#### ***Making Cooperative Organization in Rural Area***

Improving level of cooperative organization for rural households is a fundamental way to drive peasant income in Heilongjiang. More specifically, adjusting farming land rent price so that farmers freely transfer their rural land. It is also a method which can help farmers establish farming land rights market. Local rural government should continue to focus on creating large-scale agricultural market, which is the foundation for farmers to increase income and also the environment for local rural enterprises to invest and get more profits. For the second aspect, local rural government should support these factories which is large-scale, high technic and can absorb more labor surplus in rural areas. Then, the government should encourage and guide the large and medium-sized business enterprises to bring technology and capital to enter the rural areas, which makes industrialized agriculture develop and entrepreneurial

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management of agriculture be improved. Finally, to provide enough information and technology services so that farmers can market price adjustment and industry management to cooperate. It need establish and develop various agricultural trade associations and other intermediary organizations. From a micro view, rural households can organize some unions themselves, in order to get more information from market which includes rural agents, agricultural promotion organizations, professional associations, and so on.

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# Outreach Strategies and National Hospital Insurance Fund Performance in Kenya

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## ABSTRACT

Strategies are plans of action that are essential elements in enhancing organizational performance, furthermore outreach strategies are means and ways by which important information are disseminated to the stakeholders so as to enhance the delivery of services. On the other hand, NHIF outreach strategy has rendered the insurance cover inaccessible and unaffordable to many of its stakeholders. This study therefore sought to investigate the effect of outreach strategies on organizational performance of National Hospital Insurance Fund in Kenya. In order to achieve this, the study followed a survey research design and targeted 52212 mukuru Kwanjenga slum residents. A sample size of 397 was picked through convenient sampling. The study utilized questionnaires to collect data. The data was analyzed by descriptive and inferential statistics. Descriptive statistics was used to estimate the magnitude of the outreach strategies. Pearson correlation and regression analysis were used to estimate the relationship between outreach strategies and National Hospital Insurance Fund performance. The study established that awareness, accessibility and affordability strategies have a positive effect on the performance of National Hospital Insurance Fund. The study recommends that National Hospital Insurance Fund should make their services more affordable by coming up with more flexible incentive and friendlier mode of payment to motivate more people to take up insurance products, cost should be introduced to reach out to the low-income earners especially in the slums. It is also recommended that National Hospital Insurance Fund should get involved in more marketing of their services and should offer accreditation to more health institutions such locally registered health facilities that operate in the slums so as increase accessibility of the National Hospital Insurance Fund services. Such measures will help in increasing distribution centers in the area and consequently many eligible National Hospital Insurance Fund card holders could easily access and use their cards without having to travel long distances. Such strategies could also attract potential future members.

**Keywords:** Affordability, Accessibility, Awareness, Outreach strategies, organization performance

## I. INTRODUCTION

In the modern world, strategies have become essential measures in enhancing the operations of organizations so as to improve organizational performance (Bosman, 2017). Strategy generally involves setting goals, determining actions to achieve the goals, and mobilizing resources to execute the actions. A strategy describes how the ends goals will be achieved by the means resources (Kono, 2016).

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The senior leadership of an organization is generally tasked with determining strategy. Strategy can be intended or can emerge as a pattern of activity as the organization adapts to its environment or competes. It involves activities such as strategic planning and strategic thinking. Therefore, organizational performance is determined by the effect of the strategies on organizational operations. Zieling, Mahayni and Balder (2014) defines outreach strategies as a means and ways by which important information are disseminated to the public so as to enhance the delivery of services. Basically organizational outreach strategy should be based on increasing awareness to the targeted group or party. In order to promote outreach efforts, one should understand how community needs and trends affect the services delivered. This information contributes to the overall success of an organization's outreach strategy (Adei, Mireku & Sarfo, 2015). An evaluation process can also help in providing the baseline rationale for creating new programs and eliminating duplication of services and programs and this could help in improving performance. In Africa, there has been a general trend in health care financing that started with provision of free access to healthcare, cost sharing phase and finally the introduction of government run health insurance scheme (Franklin, 2010). However, the ever surging population has resulted to re-strategizing of the various governments led insurance institutions to conform to the population demand. Amongst the African countries that have enacted a government run health insurance fund include Nigeria which established the National Health Insurance Services (NHIS) in 1999 but has so far faced outreach strategic challenges which adversely affected their performance (Adei, Mireku & Sarfo, 2015). Tanzania have NHIF which was established in 1999 which has been successful, however, the surge in population has lowered the uptake of the services. In Kenya, it is reported that in spite of the fact that access to quality healthcare is enshrined in the constitution, millions of citizens are not able to afford health services due to the lack of awareness, high cost of insurance products, poor education background and distance covered to access the services.

According to the World Bank Report on Improving Healthcare for Kenya's Poor, though public health insurance was incepted about half a century (1966) ago, about 80% of the populace which is equivalent to more than 35 million Kenyans lack health insurance cover (World Bank, 2014). The foregoing situation underscores the necessity and importance of the insurance coverage subsidized by the government. One of the major initiatives to this effect is the Health Insurance Subsidy Program (HISP) launched by the Kenya government in early 2014. The initiative extends financial risk protection to the poorest in the society by availing to them a health insurance subsidy covering both inpatient and outpatient care in public and private health outlets in the country (Karanja, 2014). However, few people are registered as members of the fund and this has again raised the question whether the performance of the public health insurance provider has been impressive (Okungu, Chuma & McIntyre, 2017).

### ***Outreach Strategies***

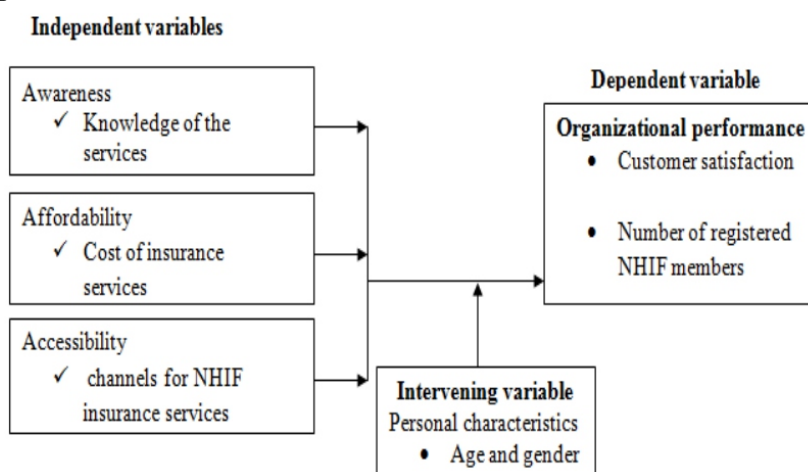
In order to produce a coherent outreach strategy, there should be collaboration from all the stakeholders involved in the mission (Ailawadi, Beauchamp, Donthu, Gauri & Shankar, 2013). This greatly helps in embracing each and every individual's view and opinion and reduces the aspect of hitting a dead end even with good strategies in place. Outreach is therefore pegged on proper community assessment. Thomas, Blattberg and Fox (2014) argues that community assessment helps in promoting overall outreach efforts by mapping trends, getting to know key players in the public or community, and collecting information about other services that are available. The assessment process can be a good opportunity to showcase organizational efforts in its programs in order to provide services. This goes a long way in cementing trust within the community and could help in improving their uptake of insurance services. A community assessment will also be essential in understanding community strengths in as far as economic and education status is concerned.

In order to enhance outreach strategy, the service provider should demonstrate professionalism implying that outreach strategy on insurance products must be high-quality and must be attractive. Secondly appropriate budget should be allocated in order to enhance outreach campaigns. The outreach strategy should also entail effective communication and skilful approach so that audiences are given information that interests them, not telling them what you think they should know (Owusu, Ackar & Rob, 2013). NHIF in Kenya The NHIF's current strategy aims at increasing registration of the public considerably (NHIF, 2012). The current package therefore of 160 KSH per family per month would seem likely to attract more workers. However, only a few have been able to register as members of the insurance fund. In spite of the fact that NHIF has been being tipped as the cheapest scheme that could salvage the citizens against the ever exorbitant medical expenses, the scheme has hitherto registered very few members and has been notably viewed by many Kenyans as a scheme that is meant for the employed especially in the formal sector (Karanja, 2014). This perception has compelled many citizens to suffer solely with the burden of footing the ever high medical bills many of them from private providers which are also deemed to be a preserve for a few. To make matters worse, the burden of footing for medical bills has made them even more vulnerable to various diseases because most of the citizens cannot afford the expensive services from other insurance health providers (Thomas, Blattberg & Fox, 2014). Coupled with the high despondency as a result of high level poverty that has continued to bedeviled the country, settling of hospital bills indeed has become a problem for many patients who cannot or do not have insurance covers. This calls for family members to organize for fundraising or sell home property to clear the hospital bill. For those who may be unfortunate enough they overstay in the hospital to wait for hospital waiver system to waive them.

According to Magaiga (2012), the outreach strategy that has been applied by NHIF has also rendered the insurance cover inaccessible. Kane (2017) also argues that affordability of the services by NHIF has of course kept many of the citizens out of the scheme. The poor performance of the public insurance provider (NHIF) in the country has also been attributed to poor outreach strategies with respect to lack of adequate knowledge, education and awareness (Ailawadi, Beauchamp, Donthu, Gauri & Shankar, 2013) which has, therefore, led to a research gap. This study is, therefore, timely as it aimed bridging the aforementioned gaps by investigating the effect of outreach strategies on organizational performance. The aim of this study therefore was to investigate the effect of outreach strategy on NHIF performance in Kenya.

## Conceptual Framework

**Figure 1: Conceptual Framework**



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**Source: Authors (2019)**

The conceptual framework indicates that awareness was measured by knowledge of services of the products and services by consumers which can then lead to improved organizational performance as measured by customer base. The framework also shows that affordability which was measured by affordable market prices for products can lead improved organizational performance as measured by satisfied customers. It again indicates that accessibility was measured by adequate channels to provide insurance services so as to improve organizational performance.

## II. RESEARCH METHODOLOGY

### Research Design

Survey research design was used. This design was appropriate because the researcher intended to collect data using questionnaire; survey generally use questionnaires and interviews to collect data. In addition, according to Bryman and Bell (2015) survey design is concerned with finding out who, what where, when and how. This study was interested in establishing how awareness, affordability and accessibility affects performance at NHIF, as such the research adopted a survey design. Creswell (2013) adds that survey design is efficient method of collecting descriptive data regarding current practices, conditions and needs of a population. Therefore, survey design enabled the researcher to summarize data in a meaningful way and be able to describe the existing relationship effectively.

### Target Population

This study targeted Mukuru Kwa Njenga residents. According to UN Habitat report (2017) there are 52, 212 adults living in Mukuru Kwa Njenga slums.

### Sample Size and Sampling Procedures

The study used convenient sampling technique to get appropriate sample size for each department. In this sampling technique, each individual was chosen randomly and entirely by chance such that each individual in the target population had the same probability of being chosen at any stage during the sampling process (Dull& Hak, 2015). The study used simple random sampling mainly because it needed only a minimum knowledge of the study group of population in advance; it is free from errors in classification and also suitable for dataanalysis which includes the use of inferential statistics. The fact that simple random sampling is totally free from bias and prejudice and simple to use made it the preferred sampling technique that was suitable for the current study.

Using Yamane (1967) formula;  $n = \frac{N}{1 + N(e)^2}$

$n = \frac{52,212}{1 + 52,212(0.05)^2}$

$n = 397$

Where N is the population size; n is the sample size; and e is the level of precision (Yamane, 1967). A precision level of 5% was assumed for the survey; the sample size was, therefore, 397 respondents.

### Data Collection Instruments

The study utilized one set of constructed questionnaires to gather information from the target population. The study used questionnaires as the preferred data collection tool because; first it assisted the researcher to gather information from the large population and diverse regions within a short time and the fact that they were less expensive; secondly, questionnaires also gave the respondents an element of privacy when they express themselves as suggested by (Saunders, 2011). A questionnaire was handed out to certain targets or segments of people to gather data and information desired.

### Data analysis

#### *Validity of Research Instruments*

Miller and Salkind (2014) hypothesize that validity refers to accuracy, thus a valid measure is one that



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yields correct estimates of what is being assessed. In order to ascertain the validity of the research instruments, the researcher made sure that criterion validity that is based on external criterion was achieved. This was determined by comparing test scores with one or more independent criteria. The researcher also bore in mind the construct validity which was based on the logistical relationship among variables. This ensured that the instrument provides a reasonable, adequate and representative sample of responses that will be considered to comprise the domain the test is meant to cover. Construct validity relates to how well the results that were obtained from the use of the measure fit the theories around which the test was designed for. The aforementioned pre-test mechanisms of the research instrument helped to clarify the wording and grammar of the instrument so as to remove any ambiguity, detect biased questions and pick out in advance any problems in the methods of research. The University supervisors who are experts in the area of research were consulted by the researcher. This was done to determine whether the instruments cover a representative sample of the behavior domain that was to be measured. The validation of content through competent judgment is satisfactory when the sampling of items is wide and judicious.

#### ***Reliability of Research Instruments***

To achieve this, reliability analysis was done using Cronbach's Alpha of Coefficient as the measure. This process assisted in addressing any weaknesses with the questionnaire and the general survey technique of the research. Improvements and editing was then made on both the structure and content of the research tool to help increase internal consistency. According to Mugenda and Mugenda (2006), a reliability coefficient of 0.5 to 0.8 is satisfactory for data analysis process as suggested by Kirk and Miller (2016).

#### ***Data Analysis Procedures***

The collected data was cleaned and edited to remove any errors. The cleaned items were then coded and entered into software for data analysis purposes. The Statistical Package for the Social Science (SPSS) version 20 was used to analyze, compute and present the findings of the research. The data was analyzed using descriptive statistics and inferential statistics. Pearson correlations analysis was used to estimate the association of the variables.

The following regression model was used to estimate the effect of the outreach strategies on the NHIF performance.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where,

$Y$  = NHIF performance

$X_1$  = Awareness

$X_2$  = Affordability

$X_3$  = Accessibility

And  $\beta$ s are the coefficient of the regression model.

### **III. ANALYSIS OF THE RESULTS**

#### **Quantitative descriptive statistics**

To obtain demographic information regarding respondents, they were asked to state their gender, age category, occupation, marital status and level of education as shown in Table 1

**Table 1: Personal Information for Respondents**

<b>Personal Information</b>	<b>Categories</b>	<b>Percentage</b>
Gender	Male	57
	Female	43
	<b>Total</b>	<b>100</b>
Age	18-25 Years	15
	26-35 Years	12
	36-45 Years	31
	46-55 years	27
	Above 55 years	17
	<b>Total</b>	<b>100</b>
Occupation	Salaried worker	10
	Wage labor	41
	Self employed	18
	Student	16
	Unemployed	9
	Retired	7
	<b>Total</b>	<b>100</b>
Marital status	Married	41
	Single	18
	Divorced	20
	Separated	13
	Widowed	9
	<b>Total</b>	<b>100</b>
Level of education	Primary	22
	Secondary	42
	College	17
	University	7
	None	12
	<b>Total</b>	<b>100</b>

The study found that female respondents were 57% while male respondents were 43%. From the findings it can be said that majority of the respondents who have enrolled into the scheme or who participated in the study were female as opposed to male respondents who were the minority. The study established that 31% (68) respondents fell in the age bracket of 36 to 45 years, 25% (54) were in the age bracket of 45 to 55 years while 17% (38) were above 55 years. It also found that 15% (33) were in the age category of 18 to 25 while 12% (26) were found to be between 26 to 35 years. From the findings it can be said that most of the respondents who participated in the study were above 36 years. It was found that 41% (89) of the respondents were wage labors, 18% (39) of the respondents were self-employed. It was also established that 16% (35) of the respondents were students, 10% (21) were salaried workers, and 9% (19) were unemployed whereas 7% (16) were retired respondents. It can, therefore, be said that most of the slum dwellers were waged labors and this was followed by self-employed respondents which is an indication that the slum dwellers income generating capacity was unpredictable. The results indicates that married respondents were 41%, single respondents were 20%, divorced respondents, 13% were separated respondents while widowed were 9%. It can, therefore, be said that most of the respondents were married and this was followed by single respondents. The study again found that majority of the respondents had secondary qualifications as highest level of education (42%). The study also found that 22% had primary qualifications. Further the study found that 17% had college qualification while 12% had no educational qualifications.

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## Correlation Analysis

### Pearson Correlation Analysis

Pearson's correlation was used to find out the statistical relationship between the variables. Correlation was denoted as r, and it took a range of values from -1 to +1. A 0 value represented no relationship and any value that was greater +1 showed positive relationship while a value less than -1 showed a negative relationship. The results are shown in table 5.

**Table 5: Correlations**

		Awareness	Affordability	Accessibility	Organization performance
Awareness	Pearson Correlation	1	.020	-.416**	.436**
	Sig. (2-tailed)		.772	.042	.032
	N	219	219	219	219
Affordability	Pearson Correlation	.020	1	.103	.371**
	Sig. (2-tailed)	.772		.127	.013
	N	219	219	219	219
Accessibility	Pearson Correlation	-.416**	.103	1	.290**
	Sig. (2-tailed)	.042	.127		.019
	N	219	219	219	219
Organizational performance	Pearson Correlation	.436**	.371**	.290**	1
	Sig. (2-tailed)	.032	.013	.019	
	N	219	219	219	219

\*\* . Correlation is significant at the 0.05 level (2-tailed).

The results show that awareness has a positive correlation of 0.020 with affordability but statistically insignificant to each other at 0.772. The study also found that awareness has a negative correlation of -0.416\*\* with accessibility but significantly related to each other at 0.042. The study also found that awareness had a positive correlation of 0.436\*\* with organizational performance and also significantly related at 0.032. In support, Howard and James (2013) study in India found that awareness has significant positive relationship with the uptake of insurance services. The study established that affordability had a positive correlation of 0.103 with accessibility and also insignificantly related at 0.127 with each other. The study again found that affordability was positively correlated with organizational performance at 0.371\*\* and also significantly related to one another at 0.013. In agreement, Gourville and Bertini (2012) states that affordability of insurance products has direct relationship with the quest to consume insurance products and consequently organizational performance. Finally the study found that accessibility was positively correlated with organizational performance at 0.290\*\* and also the two variables had statistical relationship with each other at 0.019. The results could be interpreted to mean that all the independent variables (awareness, affordability and accessibility) had a positive statistical relationship with organizational performance. The results are supported by another study carried out by Cohen and Martinez (2014) that found that awareness campaigns, cost of the insurance products and access of products have statistical positive relationship with the performance of organizations in Turkey.

### Multiple Regression model

The findings from the regression model are as indicated below

**Table 6: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.741 <sup>a</sup>	.549	.542	3.53278

a. Predictors: (Constant), Accessibility, Affordability, Awareness

Table 4.6 shows that the coefficient of correlation is 0.741 which meant that 74.1% of the variation in organizational performance is well described by independent variables. This therefore, means that there exists a positive relationship between the independent and dependent variables. The remaining 25.9% can be explained by other variables which were not part of the current study. The study also realized a high R square and adjusted R which is an indication that there exist high variations that can be explained by the model. The findings are supported by Ebenezer and Anthony (2014) study that found that awareness and affordability had positive relationship with the performance of insurance firms in Ghana.

**Table 4.8: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3261.407	3	1087.136	87.107	.023 <sup>b</sup>
	Residual	2683.314	215	12.481		
	Total	5944.721	218			

a. Dependent Variable: Organizational performance

b. Predictors: (Constant), Accessibility, Affordability, Awareness

In order to determine whether the regression model was a good fit for the data, the study tested ANOVA. The ANOVA results in table 4.7 showed that the significance of the F statistics is 0.023<sup>b</sup> which is less than 0.05 which means that there is a significant relationship between awareness, affordability, accessibility and organizational performance. The results were supported by Freeman and Zang (2011) in their study in Akatsi district in Ghana who found that pocket friendly insurance costs, accessibility, awareness and attitude do have significant relationship with performance of insurance firms in the country.

**Table 4.9: Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	13.069	3.448			3.790	.000
	Awareness	1.215	.095	.649		12.857	.011
	Affordability	.609	.093	.304		6.575	.041
	Accessibility	1.159	.111	.528		10.409	.026

a. Dependent Variable: Organizational performance

The coefficient results in table 4.7, found that the unstandardized coefficient B of awareness was 1.215 with a p value of 0.011 an indication that a unit increase in awareness leads to an increase in organizational performance. The study also found that the unstandardized coefficient B of affordability was 0.609 with a p value of 0.041 which is an indication that a unit increase in affordability could lead to an increase in

organizational performance. The study also found that the unstandardized coefficient B of accessibility was 1.159 with a p value of 0.026 which is an indication that a unit increase in accessibility could lead to an increase in organizational performance. From the findings it can be said an increase by any value in all the independent variables could to an increase in the uptake of NHIF products vis-à-vis organizational performance. The results are supported by another study carried out by Logan and William (2002) who found that increase in awareness of insurance products and service, enhanced access of insurance products and affordable cost of products and services promotes the financial performance of insurance companies in Europe.

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## IV. CONCLUSIONS

The study concluded that awareness has positive effect on the performance of National Hospital Fund in Mukuru Kwa Njenga slum and the results were also supported by both correlation and regression analyses that found statistical positive relationship between awareness and organizational performance. This was attributed to the fact that there was use of community based organizations to educate the people on the significance insurance fund, local government leaders were always involved in promoting awareness and the National Hospital Insurance Fund team has been holding seminars to enlighten the public on the significance of enrolling into the scheme. However, respondents disagreed that there has been intense and regular door to door awareness campaigns in the area. The study concludes that affordability had positive effect on the performance of National Hospital Insurance Fund in the slum. The descriptive results were also supported by correlation and multiple regression analyses that established significant positive relationship between affordability and organizational performance. The fact that most respondents agreed that they are aware that some people are not registered National Hospital Insurance Fund members due to costs, that many of their friends says that the monthly charges are unfriendly to their economic status, that most of people says that frequency of payment of premium should be subsidized to favor their economic status, that many people are not National Hospital Insurance Fund card holders, that mode of payment of premium is not reasonable and friendly and that most of their neighbors had not enrolled into the scheme due to reduced administrative costs is an indicator that the scheme is still viewed as unaffordable by many.

The study established that accessibility had affected organizational performance positively. The descriptive statistics findings are also corroborated by the correlation and regression results that established that increase in accessibility could lead to an increase in organizational performance. This was affirmed by that the agreement that distribution channels in the area have in the recent past been improved to enhance delivery of services, the government has built more facilities in the slums to bring National Hospital Insurance Funds services closer to them and that the government has contracted private facilities in the area to enhance the use of insurance products. However, the fact that many people still have to move quite some distances in order to access the services and that National Hospital Insurance Fund facilities are still not strategically situated in the area to promote access of the services hampered the delivery of services.

### **Recommendations**

The study recommends that in order to enhance awareness of National Hospital Insurance Fund scheme, different mechanisms such as mass media and public forums like public meeting places, road shows, churches and hospitals, intensive and regular door to door campaigns can be employed by the government and other stakeholders so as to sensitize and raise awareness about the National Hospital Insurance Fund scheme. The study recommends that more affordable products' cost should be introduced to reach out to the low-income earners especially in the slums. The Government should also come up with more a much more flexible incentive and friendlier mode of payment to motivate more people to take up insurance products. Such measures will go a long way in reducing insurance costs so as meet the economic status of the slum dwellers. The activities in the slum are also associated with low inadequate income which reinforces poverty and presents a challenge in incorporating them as members in National Hospital Insurance Fund scheme and requires innovative approaches which will cater for their specific needs in as far as National Hospital Insurance Fund pricing is concerned.

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The study recommends that National Hospital Insurance Fund should offer accreditation to more health institutions such locally registered health facilities that operate in the slums so as increase accessibility of the National Hospital Insurance Fund services. Such measures will help in increasing distribution centers in the area and consequently many eligible National Hospital Insurance Fund card holders could easily access and use their cards without having to travel long distances. Such strategies could also attract potential future members who could feel motivated to enroll into National Hospital Insurance Fund scheme.

### **Areas for Further Research**

The aim of the study was to investigate the effect of outreach strategy on organizational performance: A case of National Hospital Insurance Fund in Kenya. The study recommends that a future research should be carried on specific strategies such planning strategies so as to deeply understand its effect on overall organizational performance (NHIF). A future research can also be carried with the aim of investing the relationship between consumer attitude and the uptake of insurance products in Kenya.

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# Competitive Compensation Package and Employee Retention in the Telecommunication Industry in Cameroon: A Case of Orange Cameroon

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## ABSTRACT

The general objective of this study was to examine the effect of competitive compensation package on employee retention at Orange Cameroon. The study was guided by the following objectives: to determine the effect of salaries on employee retention at Orange Cameroon; to examine the effect of bonuses on employee retention at Orange Cameroon; and to establish the effect of incentives on employee retention at Orange Cameroon. The study used descriptive research design where the target population was the 577 employees of Orange Cameroon. A sample of 145 employees was selected using the Yamane formula. Data was collected using a structured questionnaire. The study revealed that bonuses were the first and most significant independent variable in this study. Incentives were the second and most significant independent variable while salary was the least significant independent variable in this study. The study concluded that there was a positive relationship between competitive compensation package and employee retention at Orange Cameroon. The study recommends that the organization adopts a comprehensive salary scheme which clearly highlights the salary increments to show how significance the increment is for each employee. It is also recommended that the bonuses offered in the organization should be competitive based on an employee's performance. It is further recommended that the organization should continually review their financial and non-financial incentive schemes to ensure that they are competitive and also above or at par with the incentives offered by the competitors.

**Keywords:** Competitive Compensation Package, Salaries, Bonuses, Incentives, Employee Retention

## I. INTRODUCTION

Today's business setting is significantly competitive. As such, a skilled workforce is considered as a major differentiating factor for most firms. Skilled employees are a firm's most important asset because the contribution of people through their skills, knowledge and innovative abilities gives an organization a competitive advantage (Nazim-ud-Din, 2013). In order to sustain competitiveness, firms not only need to attract the best skills, they should also be able to retain them for a long time. Dessler (2008) notes that employee compensation can be used in reference to the returns that accrue to the personnel originating from their employment.

It is essential to note that various terms are used in reference to compensation. This is based on the fact that it involves more than monetary payment for duties accomplished. Mondy (2008) argues that total compensation is the totality of remuneration given to employees for work done in a firm.



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It often combines major elements such as monetary incentives, pay, non-monetary compensation, as well as benefits (Zingheim & Schuster, 2008). The compensation may also be direct or indirect in nature (Namasivayam, Miao, & Zhao, 2006). Globally, in the United States, Castellano (2013) indicates that over twenty percent of employees leave their current positions yearly for a new position. This has especially been noted by employees who are younger than 25 years. In Europe, the professions that are experiencing high attrition rates are frontline managers and information technology professionals. According to Martocchio (2006), managers worldwide seem to agree that attrition can be combated by providing compensation and incentives as this strengthens employee loyalty. That is why in Europe fringe benefits constitute a higher portion of employee compensation than in the United States. Regionally, in South Africa, Mabaso and Dlamini (2017) posit that employee retention and job satisfaction has only been influenced by compensation. Therefore, for organizations to attract and retain high caliber employees, they must have an attractive compensation package in place. Organizations have also been encouraged to improve their compensation strategies to boost employee commitment. In Nigeria, John and Teru (2017) highlight that compensation is a critical factor in ensuring that firms retain their workforce. In East Africa, compensation is based on the employment hierarchy of the employees. Compensation is also categorized based on impositions by the government and also according to the employer's policy (Sitati, 2017).

Locally, in Cameroon, different sectors consider varied strategies to motivate and retain their most qualified employees. Organizations have been encouraged to introduce compensation systems that offer substantial monetary bonuses for employees who work either in urban or rural centers. According to Thierry (2018), having equitable compensation and benefit systems in an organization leads to retention of employees as well as an increase in efficiency. Employee retention has been defined by Borgohain (2010) as the ability of a firm to keep its workforce working continuously at the organization for a long period. According to Abbasi and Hollman (2000), to effectively manage employee retention, one has to focus primarily on the group of employees that would be costly to the organization if they were to resign. Operationally, the term employee retention can be defined as the different policies as well as procedures that allow employees to remain at a firm for a long period of time. Many employees are primarily motivated to come to work because of their salary. Generally, a competitive salary package motivates employees to be more committed in keeping their job, which encourages employee engagement and loyalty (Milkovich & Newman, 2004). Operationally, competitive compensation can be defined as compensation that is in line with what other industry employers offer workers for the same jobs. Gardner et al., (2004), consider pay as a motivating factor and a technique for employee retention. According to them, financial remuneration is one of the most critical factors in employee retention. Moncraz, Zhao and Kay (2009) argue that pay act as an essential factor in reducing the number of employees leaving an organization as it enhances commitment. Reville, Boden and Biddle (2003) argue that compensation is not only monetary. It can also be non-financial. A significant pay element may comprise of benefits like annuity, life and health insurance, house allowances, car allowances, reduced means and fare, company cares, retirement schemes among others. Orange Cameroon is a telecommunication company that has been operating in Cameroon for the last 16 years. The organization has a workforce of 577 employees with an investment of 600 billion francs. The organization is part of the orange global which is currently based in 38 countries ([www.orange.com](http://www.orange.com)). The compensation and benefits in the organization are very competitive as compared to other telecommunication organizations in the country. The organization prides itself in having a wide range of benefits offered to its employees ([www.orange.com](http://www.orange.com)). This study therefore sought to examine competitive compensation package and employee retention by specifically looking at how salaries, bonuses and incentives affect the retention of employees.

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## **Statement of the Problem**

The ideal and perfect picture of every organization is to attract and retain highly productive, efficient, qualified and valuable workforce who can add value to the achievement the strategic goals of the firm (Power, 2018).It is very beneficial for an organization to retain talented and highly productive employees because it gives the organization a competitive edge in terms of producing high morale and satisfied employees who are capable of providing better customer service and high productivity. Employees who join and stay with organizations do so not just because of the pay but because of what the organization can offer in total. Orange Cameroon is one of the leading telecommunication companies in Cameroon. Despite the fact that they are said to have good HR policies and competitive compensation package which attract a good number of potential employees, and many Cameroonians aspiring to work in this company, yet they still faced situations of employee turnovers. This meant that there was still a percentage of employees who were not fully loyal and content to work for the organization when they are given an opportunity to work there. It was therefore of essence to find out whether the competitive compensation package influenced employee retention or was not enough to retain employees. It was important to find out whether there were other factors that influenced their loyalty to continue working in the organization? The researcher sought to bring out the different relationships between compensation and employee retention by specifically looking at how salary, bonuses and incentives influenced employee retention at Orange Cameroon.

## **Objectives of the Study**

The primary aim of this investigation was to evaluate competitive compensation package and employee retention at Orange Cameroon, whereas its specific objectives were:

1. To ascertain the extent to which salaries affect employee retention at Orange Cameroon.
2. To evaluate how bonuses influence employee retention at Orange Cameroon.
3. To find out how incentives affect employee retention at Orange Cameroon.

## **Significance of the Study**

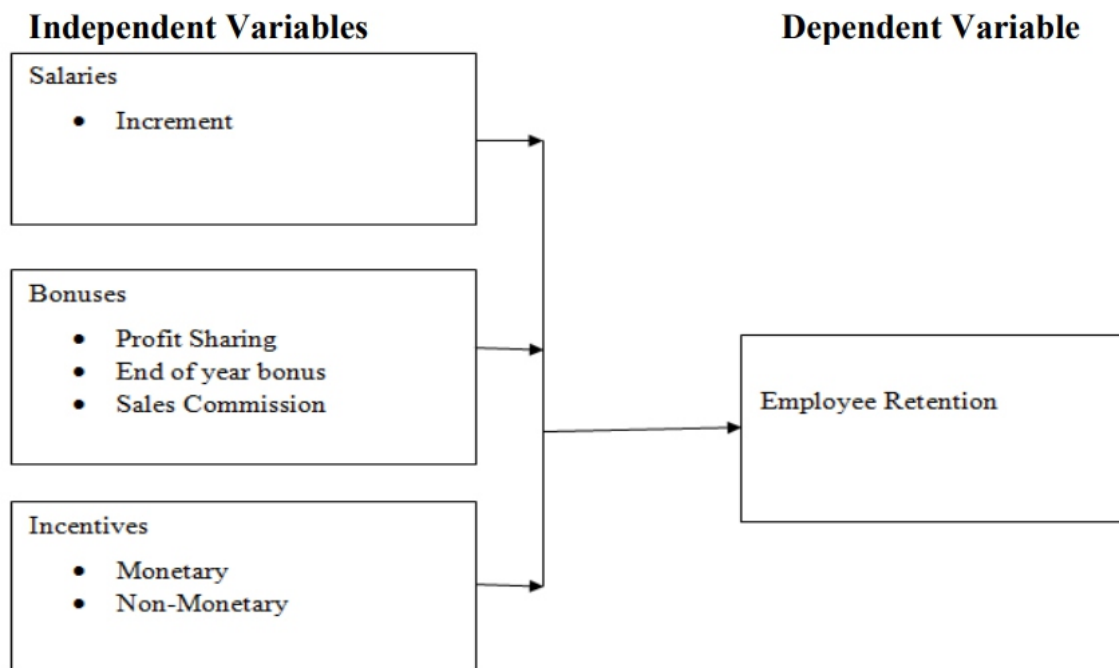
The results of this investigation would be of importance to the management of Orange Cameroon and the Human Resource department since it would inform them on the factors that contribute to employee turnover at Orange Cameroon. This would help the firm in coming up with the desired retention strategies. This study would also help the government and other employers with information that would help them come up with policies and legislations on employee benefits. Additionally, trade unions would also find this investigation to be of importance to them. This is because it would inform them on what goes on at the workplace between the personnel and their employers with regards to compensation and benefits. As such, this would help the trade unionist to restructure their objectives in line with workforce turnover. Further, this research would be of great significance to the investigator to add to knowledge and awareness on the role of compensation and benefits on employee retention. This study would be of importance to future researchers because they would assist the investigator acquire expertise that can be applied in carrying out other studies in other subject areas. Skills that include creation of questionnaires, interaction with people, as well as collecting and evaluating data for investigation. Future researchers who would want to carry out an investigation similar to this one would have additional information to work with in his or her study. In this respect, this investigation is of importance because it adds to existing literature on the importance of compensation in retaining employees. As such, it can be used as reference for future investigation on the same subject matter.

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## Conceptual Framework

The study was guided by the following conceptual framework.



**Figure 1: Conceptual Framework**

Source: Adopted from literature review

Figure 1 showed that the independent variables under the dimensions of salaries which was explained by an increment; bonuses which were profit sharing, end of year bonus and sales commission and incentives under the constructs of monetary incentives and non-monetary incentives. By arrows, the independent variables were capable of affecting the employee retention. According to the conceptual framework, the parameter of salaries which showed increment were capable of affecting the employee retention as they might lead to enhanced loyalty and employees being more passionate about their job. Further, by having bonuses like profit sharing, end of year bonus and sales commission were capable of influencing the employee retention as they became more loyal to the organization or became passionate in their duties. In addition by having incentive plans that were either in monetary or non monetary in nature motivated the employees to continue working for the organization passionately and remain loyal to the organization.

## II. LITERATURE REVIEW

### *Theoretical Framework*

#### **Expectancy Theory**

One of the theories used in this investigation is the expectancy theory proposed by Vroom in 1964. According to the theory, the effort to satisfy ones need is based on the individual's perception that he or she expects that their efforts would be followed by some form of outcome that is likely to result in desired rewards. Vroom (1964) argued that one's behavior is influenced by what they want, their estimation of the possibility of things taking place as well as how strongly they believe that a given event is likely to satisfy their needs. People often base their prediction of future happenings on past experiences. New situations that employees are likely to experiences say for example, changes at the workplace, new policies or working environment, uncertainty among other changes is likely to demotivate employees. This is because those involved do not have an understanding of what exactly to expect as a result of the changing workplace or circumstances. As such, Vroom (1964) argued that it is critical for the executives

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to make sure that the workforce has an understanding of what is expected of them based on the altered circumstances. The workforce should be able to connect their efforts to rewards given that from their efforts they hope to generate desired rewards instrumental in meeting their needs. As such, a desired reward scheme is believed to be instrumental in increasing employee efforts given that they can relate their efforts to higher wages. This theory was significant to this study in that the compensation package received by employees from organizations could meet up with their expectation and efforts put into the job. If a competitive compensation package was given to employees, this would increase their efforts and commitment.

## **Empirical Studies**

### ***Salaries and Employee Retention***

A study by Iqbal, Guohao and Akhtar (2017) demonstrated that firms with higher wages retained their employees more than those with low wages. The recommendation from the study was that organizations should ensure they have attractive salary packages as this would enhance loyalty among employees and boost the retention rate. Further, Singh and Loncar (2010) recommended that for organizations to curb employee turnover they should formulate human resource compensation policies that promote equity and justice as this would lead to job satisfaction and boost the retention rate. In addition, John and Teru (2017) revealed that an increase in pay results in an enhanced employee retention. A study by Tuwei and Chepchumba (2017) suggested that organizations should review the salaries for employees on a frequent basis to ensure they remain competitive. On top of this, Msengeti and Obwogi (2015) recommended that organizations should embrace the use of holistic approaches in paying employee salaries as this would have an impact on their retention. They further recommended that organizations should harmonize their pay to promote equal pay for equal work to avoid discrimination and favourism as this would negatively affect their retention.

### ***Bonuses and Employee Retention***

Stede, Wu and Wu (2018) demonstrated that the marginal impact of bonuses on productivity and loyalty of employees was high when the bonuses were sufficiently large. The study recommended that the management should be careful when reviewing performance standards as this had a direct effect on bonuses received by employees. Further, Park and Sturman (2009) recommended that organizations should have a policy on bonuses so as to regulate the play plans as this would enhance employee loyalty. In addition, Chiekezie, Emejulu and Nwanneka (2017) suggested that organizations should formulate and implement bonuses packages that were linked to employees performance as this would enhance their loyalty to be associated with the organization. In a rejoinder, Sethunga and Perara (2018) noted that organizations should offer cash bonuses annually or semi-annually as it significantly impacted employee retention.

### ***Incentives and Employee Retention***

A study by Atiq and Bhatti (2014) established that various types of incentives were important regardless of the employee's age. The investigation came to the conclusion that organizations should carry out surveys to establish the needs of the employees as this would enable them to realign the incentives based on employee preferences. Further, an investigation by Mendis (2017) demonstrated that incentives and retention of employees had a positive correlation. The recommendation from the study was that in order for organizations to retain their staff they should have a balanced incentive scheme that includes both monetary and non-monetary incentives. On top of this, Saleem (2011) recommended that organizations should increased financial incentives such as promotion as this would be instrumental in reducing

employee turnover and enhance their loyalty. In Ghana, Gyambrah, Amponsah and Wilson (2017) suggested that policies on promotion and career progression should be put in place as this would assist in the retention of employees.

### III. RESEARCH METHODOLOGY

This investigation utilized the descriptive research methodology. The target population for the study comprised of employees at Orange Cameroon head office in Yaounde comprising of 577 employees. In the current investigation, the research used 25% of the population targeted which was 144 employees. This was based on Kothari (2004) who posits that a sample used in any investigation must be more than 10% of the targeted population. The investigation used stratified sampling method to stratify the employees according to departments they work in. After getting the sample size, simple random sampling was utilized in selecting 145 employees from the departments they were working under. A questionnaire which was structured was used to collect primary data that is important to the investigation while secondary data was collected from published journals on the subject matter. The researcher obtained permission from the Human Resource Department at Orange Cameroon to collect data. After approval, the researcher emailed the questionnaires to two research assistants based in Cameroon to collect data. SPSS software version 25 was utilized in analyzing the data collected for the current investigation. The current investigation utilized both inferential and descriptive statistics. Cooper and Schindler (2010) observe that descriptive statistics allows the investigator to eloquently explain a distribution of measurements. The descriptive statistics used in the analysis included frequencies. Further, inferential statistics were used through multiple regression analysis. The data was presented through simple tabulation and arrangement of responses in frequency tables, pie charts and bar graphs.

### IV. RESULTS AND DISCUSSION OF FINDINGS

The investigator was also interested in finding out how bonuses influenced employee retention at Orange Cameroon. Data was statistically analyzed and the results are presented below.

**Table 1 Effect of Bonuses on Employee Retention**

Items	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)
The bonuses are competitive	-	25	40	33	2
An end of year bonus is consistently given	-	-	-	52	48
The bonuses are related to an employee's performance	-	23	32	45	-
Holiday bonuses are given	-	42	39	19	-
The employees are entitled to a sales commission	-	-	12	62	26
Employees get opportunities for profit sharing	-	12	39	42	6

Source: Research data, 2019

Table 1 demonstrate that most of the study subjects (40%) neither agreed nor disagreed that the bonuses were competitive while 33% of the participants were in agreement with the statement. 52% of the respondents further agreed that an end of year bonus was consistently given while 48% of the participants strongly agreed with the statement. Further, 45% of the study subjects were in agreement

that the bonuses were related to an employee's performance while 32% of the subjects took a neutral position with the statement. On the contrary, 42% of the participants disagreed that holiday bonuses were given while 39% of the subjects had neutral opinions on the statement. 62% of the participants agreed that the employees were entitled to a sales commission while 12% of the respondents did not agree or disagree with the statement. Further, 42% of the study subjects were in agreement that employees got opportunities for profit sharing while 39% of the respondents also took a neutral position with the statement. This showed that although the bonuses were consistently given to employees on a yearly basis, there was some dissatisfaction on how competitive they were and also on the holiday bonuses as some employees felt that they were not being given to all employees. The findings are similar to those of Stede, et. al. (2018) suggested that the management should be careful when reviewing performance standards as this had a direct effect on bonuses received by employees. Recommendations were made to the effect that firms should consider the expertise of their employees when designing the bonus package as this would influence their loyalty to the organization. Chiekezie, et. al. (2017) also revealed that organizations should formulate and implement bonuses packages that were linked to employees' performance as this would enhance their loyalty to be associated with the organization. Further, Sethunga and Perara (2018) concluded that long-term bonuses that were awarded semi-annually had a positive impact on retention of employees. They therefore made the recommendation that organizations should offer cash bonuses annually or semi-annually as this had a greater impact on retaining their employees.

### Statistical Analysis for Multiple Regressions

A multivariate regression analysis utilized in determining the relationship between the study variables. Its results are illustrated below.

**Table 2: Regression Model Summary of the Predictors of Employee Retention**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.888(a)	.788	.769	.14112

a Predictors: (Constant), salaries, bonuses, incentives

Source: Research data, 2019

The R squared was the proportion of variation in the independent constant whose explanation could be realized from the independent variables. In this investigation the R-squared was taken to be 0.788 demonstrating the 3 independent variables (salaries, bonuses and incentives) could explain 78.8% of the dependent constant. This demonstrated that other factors not investigated in this research explained 21.2% of the dependent constant (employee retention).

**Table 3: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.825	.192		4.297	.000
	Bonuses	.672	.123	.642	5.463	.000

a Dependent Variable: Employee Retention

Source: Research data, 2019

Based on the intercept ( $\beta_0$ ).when the independent constants were seized persistent, the value of employee retention would be 0.825, Additionally, ensuring that all independent variables are held constant, a unit increase in bonuses results in a 0.672 improvement in dealing with retention of workers.

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The relationship was significant as demonstrated by a p value of 0.000.

## **Summary of Findings**

### ***Effect of Bonuses on Employee Retention***

According to the regression coefficient results, the effect of bonuses on employee retention was the first and most significant ( $p=0.000$ ). Most of the study subjects (40%) had neutral ideas that the bonuses were competitive while 33% of the participants were in agreement with the statement. 52% of the subjects were in further agreement that an end of year bonus was consistently given while 48% of the subjects had positive views on the statement. Further, 45% of the participants were in agreement that the bonuses were related to an employee's performance while 32% of the subjects took a neutral position on the statement. On the contrary, 42% of the subjects did not agree that holiday bonuses were given while 39% of the subjects had neutral views on the statement. 62% of the participants agreed that the employees were entitled to a sales commission while 12% of the subjects did not agree or disagree with the statement. Further, 42% of the subjects were in agreement that employees got opportunities for profit sharing while 39% of the participants took a neutral position with the statement.

## **V. CONCLUSION**

The study concluded that bonuses also had a significant correlation with employee retention this shows that the second objective was met. The respondents were somewhat not sure that the bonuses were competitive but agreed that an end of year bonus was consistently given. The findings are similar with those of Stede, et. al. (2018) suggested that the management should be careful when reviewing performance standards as this had a direct effect on bonuses received by employees. Recommendations were made to the effect that organizations should consider the expertise of their employees when designing the bonus package as this would influence their loyalty to the organization. Further, the respondents agreed that the bonuses were related to an employee's performance but disagreed that holiday bonuses were given. The respondents agreed that the employees were entitled to a sales commission and that employees got opportunities for profit sharing. In line with this, Sethunga and Perara (2018) concluded that long-term bonuses that were awarded semi-annually positively influenced employee retention. They also made a recommendation that organizations should offer cash bonuses annually or semi-annually as this had a greater influence on retention of employees.

## **Recommendations**

The study recommends that the bonuses offered in the organization should be competitive founded on the performance of the employee. This will encourage the employees to be more productive knowing that they will be compensated with a bonus. Having a competitive based bonus scheme will also ensure there is no discrimination on the awarding of bonuses as everything will be clearly outlined.

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