Customer Satisfaction in Non-Life Insurance Companies in Kenya: Does Information Technology Agility Matter?

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Abstract: The insurance industry plays a key role in the development of a nation’s economy through provision of employment and financial security. Despite this, it has been noted that the non-life insurance firms in the Kenyan context have been faced with concerns in regards non-resolved customer complaints, insurance penetration, and clients’ confidence. As a result, this study examined the effect of information technology agility on customer satisfaction in the context of non-life insurance firms in Kenya. Variables for this research were anchored on dynamic capabilities and dissonance theories. The study population consisted of 28 non-life insurance companies that was observed through a sample survey of 133 from a population of 196. The methodology of the study was informed by descriptive research design. Data was obtained via a structured questionnaire. Further, reliability of the research instrument was analyzed on the basis of Cronbach Alpha index constructed from observations gathered in a pilot study. Statistical interrogation of data involved the use of descriptive and inferential analysis. Whereas descriptive analysis focused on sample mean and sample standard deviation, inferential analysis encompassed correlation and regression analysis. Statistical results were displayed in figures and tables. The study revealed a moderate positive linear relationship between information technology agility and customer satisfaction. Additionally, linear regression analysis confirmed that information technology agility has positive effect on customer satisfaction. It’s therefore recommended that the managers in charge of information technology should strengthen programs on information technology sharing, and business process integration. Sufficient resources should be availed for consistently maintaining and upgrading the information technology infrastructure so as to be responsive to shift in information needs in an ever-changing business environment.

Keywords: Non-Life Insurance, Information Technology Agility and Customer Satisfaction

1. INTRODUCTION

Insurance Regulatory Authority (IRA) affirms that financial security in the value creation and delivery processes contributes considerably to a nation’s overall economic growth by ensuring the smooth operation of firms and producing long-term financial resources for industrial initiatives (IRA, 2018). In essence, insurance companies by their very nature play a pivotal part in the provision of monetary security to both life and property. In the views of Kwon and Woffrom (2016), insurance companies have been observed to serve as institutional investors and thus support economic activities which stimulate the growth and sustainability of national economies. In order to ensure this sustainability, there is need to put the customer at the center of every decision, both at strategic and operational level. This will not only ensure the retention customers but also the growth of the market through acquisition of new customers (AKI, 2020). Customer satisfaction is therefore the key towards the existence and profitability of the insurance industries and subsequently a bridge to competitive advantage in the current dynamic world.

In a competitive and dynamic environment, organizations can optimize their potential for growth by paying keen attention to the changing needs of their customers (Gilaninia, Taleghani & Talemi, 2013). As has been noted by McColl-Kennedy and Schneider (2000), management theorists, researchers, and practitioners emphasize the centrality of customer satisfaction in pursuit of the success of business enterprises. In the event that an organization manages to satisfactorily match the requirements and concerns of its target clients in an environment characterized by constant changes, then its success in
the marketplace is guaranteed. Accurate perception of consumer demands, on the other hand, necessitates the competency of a company to adjust and transform correctly in the face of changing external factors and situations.

In the opinion of Sharmin (2012), customer satisfaction describes the emotional reaction to the experience offered by, (or connected to) specific services or products bought as well as the general behavior of the entire market. Ograjensek and Gal (2012) clarified the definition of customers’ satisfaction to mean the response processes of consumers to the assessment of discrepancy perceived connected to expectations prior and performance actualization of the perceived product after consumption. Satisfaction of customers is key as it depicts the fulfillment consumers derive from a product or service. It represents the judgment provided by a customer on the service rendered to him/her. The definition provided two-sided approaches to understanding customer satisfaction. While on one hand, satisfaction is defined as an end-state amounting from the experience of consumption the other hand stresses the evaluative, psychological, and perceptual processes that are satisfaction contributors (Evangelos & Yannis 2010). Customer satisfaction according to Razak, Nirwanto, and Triatmanto (2016) implies the feedback of customers in an evaluation form after the purchase of some bundles of services or goods which are compared with the expectation of the customer.

Organizational agility is dependent on the ability of companies in responding and becoming flexible in terms of market capability and efficiency. As a result, a company's competitive advantage is decided by how well its available resources are put to work leading to the creation of a predictable and indelible market in the business environment (industry) in which it competes (Kuleelung & Ussahawanitchakit, 2015). As a result, organizational agility enables the pursuit and recovery of proper information, enabling business organizations to employ this knowledge to react to the development of competitors and ensure the expansion of high-quality services and goods (CegarraNavarro, Soto-Acosta & Wensley, 2016).

Information technology agility is a critical aspect organizational agility that provides significant benefits to organizations as it supplies it with enhanced information capacities. This is notably related to information exchange between organizations in collaborations and this is considered vital for the purposes of securing their important information systems, flexibility, and relationship (Salojarvi, Ritala, Sainio, Saarenketo, 2015). IT and Secure information other technologies have further advanced as they are being utilized in expanding business operations (Alhadid & Abu-ruhman, 2015). Information technology agility entails the integration of the members, attributes, and processes of companies with advanced technology. Nissen and Rennenkampff (2017), measured IT agility in terms of how a firm applies technology in production and distribution, human resource transformation, customers demand response, functional requirements, business scope, and business redesign. More so, Yauch (2010) measured IT in terms of customers’ suppliers and competition. This study will employ IT in the area of information business partnership, technological innovation, IT infrastructure, external IT linkage, and IT business process integration.

Globally, insurance companies have experienced a slowdown in gross premiums since COVID-19 pandemic emerge. In consonance with the Organization for Economic Co-operation and Development (OECD), the non-life and life insurance sectors witnessed a dismal 28.3 percent growth in gross premiums in their jurisdictions, compared to the 26 percent linked with 2019 (OECD, 2021). However, there was a decline in premiums in both general and long-term insurance sectors in 10 jurisdictions, 9 in the non-life sector, and 19 in the life insurance sector jurisdictions only. The non-life insurance premiums grew by 1.2% whereas the premium in the life sector declined by 2.2% on average in the year 2020. This shows that the premium in the global insurance industry has fallen as the premium in 2019 demonstrated a higher growth rate premiums increase of averagely 4.7% in the life sector and 3.6% in the general sector as reported in 51 authorities.

Insurance companies have continued to grow in Kenya. In 2016, 2017, 2018, 2019, and 2020, there were 51, 52, 54, 55, and 56 companies respectively with majority their services in non-life insurance which constantly takes a lead influence in the industry above life insurance. According to IRA (2019), 37 listed non-life insurance companies were in existence with 5 reinsurers. The fastest-growing premium income was 56.08% which was accounted for by the top 10 non-life insurers at the end of
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2019. AKI (2020) posited that the total insurance premium stood at KES 235.31 billion in 2020 in contrast to KES 231.30 billion in 2019, depicting 1.73% increase. This shows slow growth in the insurance industry in Kenya.

2. STATEMENT OF THE PROBLEM

Insurance companies have been observed to serve as institutional investors and thus support economic activities which stimulate the growth and sustainability of national economies (Kwon & Wolfstream, 2016). Indeed, the insurance industry as a sub-sector of the financial sector plays a pivotal part in the provision of financial security to both life and property, creation of employment and contribution to the gross domestic product. To achieve competitive sustainability, insurance companies need to be more innovative and introduce products that match the current market demand by being more customers oriented and embracing technological innovations (AKI, 2019).

However, an analysis of the existing literature indicates that insurance companies have a problem of customer satisfaction. Comparative analysis of insurance penetration places Kenya at 2.3 percent relative to its African peers such as South Africa at 7.6 percent. Furthermore, the Klynveld Peat Marwick Goerdeler (KPMG) tax and advisory report of 2016 observes that over 80 percent of clients express lack of confidence in respect to the operations of insurance companies, including the products (KPMG, 2016). It has also been noted that in the first half of 2021, there was a marked increase in customers’ complaints from 360 to 459 in the first and second quarter respectively (IRA, 2021). Notably, only 163 of the registered complaints were successfully resolved to comprise a paltry 35.5 percent of the total complaints associated with the period.

Several researchers have conducted inquiries on organizational agility related sectors, pointing out different variables. Kish and Rojuee (2016) investigated the relationship between organizational agility and customer satisfaction in Iran insurance companies. It was established that organizational agility has a remarkable positive correlation with customer satisfaction. However, the setting was in Iran and the reported data not applicable in the Kenyan theatre. In the Kenyan context. Another study was conducted by Nabatchian, Moosavi and Safania (2014) to examine the effect of organizational agility on job satisfaction among staff in Iran's Ministry of Youth Affairs and Sports. The study discovered a significant relationship between organizational agility and job satisfaction variables such as replication, competence, flexibility, and work speed. Being that the study was not conducted among insurance companies may lead to the findings not being applicable in the insurance context. Majlesi (2015) investigated the association of agility on an organization's brand reputation in technical and engineering services firms in Isfahan, central Iran. According to the findings, organizational agility has an impact on the reputation of the organization's brand. However, the dependent variable was reputation and not customer satisfaction.

Locally, Okotoh (2015) investigated the impact of organizational agility on Trademark East Africa's operational performance. The researcher demonstrated that Trademark East Africa's IT had a positive impact on its operational performance. The findings however related organizational agility with operational performance and not customer satisfaction hence a conceptual gap. Kitur (2020) investigated the relationship between organizational agility and firm performance in Nairobi. The study which was carried out among tour and travel companies in Kenya, established a non-significant association between organizational agility and performance. The aforementioned studies had contextual differences with the current study.

3. LITERATURE REVIEW

3.1 The Dynamic Capabilities Theory

The dynamic capabilities theory was developed by Teece, Pisano, and Shuen in 1997. According to the notion, the capacity to establish, reconstitute and integrate exterior and integral adeptness to deal with expeditious changes in a business environment is critical to an organization's success. The success of international firms depends on the ability of firms to adapt to timely responses in innovation to catch up with product and service delivery (Akintokunbo, 2018). This depends on the manner in which firms employed both internal and external capabilities effectively to obtain efficiency. The theory explained how firms’ inventiveness is related to dynamic business environment specific features thereby positioning them in the industrial settings, opportunities and market.
The theory emphasized the need for firms to develop innovations that cannot be easily copied by others. The capabilities act as a means of achieving configuration that assists in benefits from market transition opportunities in the short term (Wheeler, 2002); hence creating value addition that relies on fortuitous, astute and soonest rivalry applications (Eisenhardst & Martin, 2000). The theory exposed the weakness and strength of a firm’s ability to guard its intellectual property in product modification. In this case, companies should have diverse capabilities in position, processes and agility path (Teece, 2014). This offers the firm the ability to penetrate and retained the market share reasonably for profitability.

In a competitive and dynamic environment, organization agility has the potential to optimize the outcomes of an enterprise by paying keen attention to the changing needs of its customers. In particular, agile organizations are considered to have the capacity to react aptly to the unstable circumstances of the market and as such promote the experience of customers in relation to service delivery. The advantage of firms meeting customers’ satisfaction in the insurance companies entails the repetitive learning process of the firms which leads to their sustainability in the competitive market thereby earning the returns on invested resources. Therefore, this provided theoretical anchors to organizational agility and customer satisfaction.

3.2 Dissonance Theory

Festinger (1957) founded this theory who argues that individuals or customers expect above-average services and when they end up receiving values minimum than that which they expect, a discrepancy is realized. This implies that the difference in the customer service expectation manifests mental uneasiness in the person (Yi, 1990). Gachau (2016) shown that the hypothesis expected to be simply later customers’ satisfaction, evaluation and experience form the major function of customers’ level of anticipated charges identified as emotional uncomfortability and disconfirmation. Notably, customers anticipated discrepancies in the performance to match early anticipated levels of satisfaction. The assessment of expected customer services will be elevated when the associated costs are high (Chege, 2021).

The appreciation of the theory lies in the subsidization of the anticipated service value which is not inert in customers as it varies based on service usage or experience transfer. This shows that as customers advanced from the utilization of one service to the next (Gachau, 2016); their expectation about the service quality delivery provision is influenced based on the concluded utility as encountered earlier from the start. Based on the aforementioned, it does not mean that customers’ response to poor service quality is mitigated by termination. Therefore, it becomes necessary for the provider of such services to ensure quality service delivery to avoid reactions from customers as a result of customers’ dissatisfaction (Akalu, 2015). Corresponding to the stiff competition in the insurance companies in Kenya, a differentiated advantage is illustrated by firms in the industry where all firms strive to provide the best service to ensure the satisfaction of customers thus, reducing the effect of dissonance by increasing the level of customer satisfaction internally or externally.

3.3 Empirical Review of Information Technology Agility and Customer Satisfaction

Kyeremeh, Prempeh and Afful (2019) in Ghana investigated Information Communication Technology (ICT) contribution to banks’ performance in the field of service delivery in financial services. The study applied qualitative research where descriptive and exploratory design was utilized in analyzing the qualitative information. A structured questionnaire was applied to fifty customers of Barclays Bank. ICT demonstrated to decidedly affect client care conveyance in terms of performance which affected the growth of Barclays Bank. The study recommended that Barclays Bank, the performance ATMs and networks should be enhanced to raise customers’ satisfaction. The setting of this inquiry was in Ghana while this research was engrossed on insurance companies in Nairobi City County of Kenya.

Kazakov, Ruiz-Alba and Munoz (2020) evaluated the influence of Internal Market Orientation (IMO) on the presentation of associations taking into account employees’ loyalty and job satisfaction in SMEs. A survey research design was employed in the study where three hundred and sixteen (316) SME employees were used through multistage sampling techniques. The study affirmed that utilization of Information Communication Technology (ICT)-is supported and with the effectiveness
of the IMO suitability and its concept SMEs operationalization, it has a constructive sequel on how SMEs executes their operations.

Taking the case of Centenary Bank, Pallisa Branch, Mukyala (2020) investigated the effect of ICT on customer service satisfaction. Survey research was carried out on a population of 160 using a questionnaire approach. It was noted from the study outcome that market orientation and technology had a negative effect. More so, service automation had an inverse effect on customer service automation. Technology does not lead to an instant positive effect on customer satisfaction. As per this, information technology ought to be applied in phases to bring about the positive effect desired for customer satisfaction. Having conducted the study on ICT, this study was focused on insurance customers’ satisfaction in Nairobi City County of Kenya.

Kucia, Hajduk, Mazurek, and Kotula (2021) identified the use of ICT in customers’ management of value from a sustainable development perspective. The study applied a quantitative technique of analysis where 1134 customers were selected in Poland. This is because the country enjoys the massive and quickly evolving e-markets in Europe. It was exposed that customer management of value; informal communication online and offline plays an important role within the procedure. The study concluded that business practices should spur customer engagement through an online business environment thereby gaining greater control of the market by practicing co-innovation of value for both customers and the companies. The research was conducted in the context of Poland unlike the Kenyan context as demonstrated in this research.

3.4 Conceptual Framework

Guided by the review of conceptual, theoretical and empirical literature the hypothesized relationship between the research construct is displayed in Figure 1.

### Table 1: Conceptual Framework

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information Technology Agility</strong></td>
<td><strong>Customer Satisfaction</strong></td>
</tr>
<tr>
<td>• Business process integration</td>
<td>• Product packaging</td>
</tr>
<tr>
<td>• Information technology sharing</td>
<td>• Price</td>
</tr>
<tr>
<td>• Information technology infrastructure</td>
<td>• Responsiveness</td>
</tr>
<tr>
<td>• External information technology linkages</td>
<td>• Overall communication</td>
</tr>
<tr>
<td></td>
<td>• Accessibility</td>
</tr>
</tbody>
</table>

**Figure 1. Conceptual Framework**

Source: Author (2022)

Arising from reviewed literature and resulting conceptual framework it is hypothesised that:

**Null hypothesis**

*Information technology agility has no significant effect on customer satisfaction among non-life insurance firms in Kenya*

**Alternative hypothesis**

*Information technology agility has a significant effect on customer satisfaction among non-life insurance firms in Kenya*

4. **RESEARCH METHODOLOGY**

A research design is a comprehensive method amalgamating different components of a study in order to bring coherence and rationality and thus ensuring that the research problem is addressed substantively. It forms the foundation for the establishment of the methods for data collection, measurement, and analysis (De Vaus, 2001). Based on this, the researcher adopted descriptive design. Descriptive research was employed to not only obtain information concerning the current status of the phenomena but also describe the conditions of the existence of the variables in relation to their situation. Descriptive research design is instrumental in addressing the what, when, who, where, and how concerns of a specific inquiry (Anastas, 2000). This is because the design offers the researcher
The avenue to examine the variables used for the study without manipulating the informers. The adopted research design has been used in past quantitative research studies (Mungai & Kinyua; Mbulwa, & Kinyua, 2021; Gatuyu & Kinyua, 2020; King’oo, Kimencu, & Kinyua, 2020; Kiprono & Kinyua, 2021; Murerwa, & Kinyua, 2021).

The targeted population is description of numbers of parameters on particular individuals possessing the pertinent observable characteristics of interest to the researcher and from which a representative portion can be selected. This population encompasses the objects of investigation from which information are obtained by the researcher (Kothari, 2014). Saunders et al. (2009) asserts that elements in a target population should have similar observable characteristics. Non-life insurance companies constitute 56.39 percent of the total premium in the industry (AKI, 2020). Additionally, 75 percent of the complaints raised by customers emanates from the non-life covers (IRA, 2021). For this study, a total of 28 non-life insurance companies formed the unit of analysis.

The senior managers reporting to the chief executive officer (CEO) in each of the 28 non-life insurance companies were of interest for research observations. These managers included; Business Team Managers, Account Managers, Investment Management Analysts, Senior Enterprise Risk Management Analysts, Insurance Risk Management Specialists, Claims Coordinator and Sales Manager. The senior managers were chosen since they are the ones involved directly in implementing changes in organizations. Hence, they are expected to have valid information regarding organizational agility. They are also the ones who receive the reports regarding customer satisfaction index and hence have all facts on the same.

A total population of 196 respondents was considered for subsequent sampling survey. The researcher targeted the senior managers as key respondents for the research. The rationality for this selection is trailed by the actuality that the senior managers are experienced insurance employees who are involved in the daily management of insurance customers. These managers are also assessed to be the custodians of the three variables associated with this study.

Sampling design depicts the approachable plans of an investigation that the researcher employs in arriving at a population sub-group to be investigated rather than the entire population elements (Kabir, 2016). It entails selecting elements of the investigation which the researcher asks questions from and in which such information is used for generalization on the whole population of the study. It represents the elements chosen by likelihood or for the purpose in which the investigation is set forth. Purposive sampling was employed to select senior managers since they are considered to have valid information regarding the study topic. Further sample random sampling was adopted to arrive at the individual managers who were part of the respondents from each company. Simple random sampling was useful since it allowed for equal chances for each unit to be selected.

To arrive at the sample size, Taro Yamane (1967) formula which has also been adopted in other studies (Muthoni & Kinyua, 2020) as depicted in model (i).

\[ n = \frac{N(1+ N(e)^2)}{1} \]  

Where;

\( n = \) Sample size,
\( N = \) Population size
\( e = \) level of precision

At 95% level of certainty, the level of precision \( e = 0.05 \), thus \( n \) is determined thus;

\[ n = 196\{1+ 196(0.05)^2\}^{-1} \]

\[ = 133 \]

Primary data was used in the investigation. Primary data was beneficial to the study since it is more trustworthy because it is gathered directly from the source. Primary data also provides up-to-date data. It was therefore helpful in this inquiry since the researcher was able to obtain data directly from the managers who are directly involved in organizational agility matters in insurance companies. Because the researcher intended to collect extensive data and provide in-depth descriptive analysis, the
information was obtained through a questionnaire. According to Kothari (2004), a questionnaire is an appropriate tool used to collect information in a study encompassing a large scope in an empirical investigation. Moreover because of the short research time questionnaires was most appropriate as they are not so much time-consuming when compared to interviews which require a lot of time to conduct. In this study, a structured questionnaire was employed. Mugenda and Mugenda (2011) assert that 1 to 5 are placed on the statements on the questionnaire to determine the respondents’ degree of agreement or disagreement. This also allowed the researcher to get structured responses to provide quantitative data for analysis and conclusions (Kitur & Kinyua, 2020). A closed-ended questionnaire was used which had been subjected to validation and reliability confirmation of a pilot study using 10 respondents from the insurance companies. This was conducted to ascertain the quality of the information gathered and further corrections made if need be.

Validity entails a tool that expresses the level whereby a study evaluates the specific concept that the researcher intends to measure (Mugenda & Mugenda, 2003). As explained by Robson (2011) the figures an instrument estimates what it is expected to compute is alluded as its validity. It determines the degree of agreement between the results of data analysis and the actual phenomenon under study, and thus is a measure of how accurate the inferences drawn as a representation of the measured concepts. Face, content and construct validity was critical in appraising research instrument employed on how it actually captures what it was planned to put into test. To achieve this, the researcher pursued the thoughts and guidance of experts in the Department of Business Administration, especially from strategic management, starting with the research supervisor. Subsequently, the researcher conducted extensive theoretical and empirical literature review in order to confirm relevance of questionnaire in respect to meeting the requirement for content and construct validity.

Reliability describes the measuring instrument's strengths to yield duplicate results on repeated trials using the same concepts and procedures (Treiman, 2009). To attest the reliability of the data collection instrument, senior managers were targeted in each of the insurance companies so that it mirrors both strategic and operational aspects of the variables under study. Cronbach’s alpha coefficient, which is typically employed in research with questions with multiple rating scales, was deployed to determine the instrument's reliability. The coefficient's approach, which ranges from 0 to 1, assesses the reliability, which demonstrates how strongly the items tested positively correspond to each other. According to Brotherton (2008), structures that should be regarded as dependable should have a cut-off of 0.7 or above. This threshold has been applied by a significant entity of empirical literature (Chepkosgei, Kahuthia, & Kinyua, 2020; Njoroge & Kinyua, 2020; Ong'esa, & Kinyua, 2020).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach coefficient score</th>
<th>Alpha coefficient score</th>
<th>No. of Items</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Technology Agility</td>
<td>0.894</td>
<td>6</td>
<td></td>
<td>Reliable</td>
</tr>
<tr>
<td>Customers’ satisfaction</td>
<td>0.823</td>
<td>0.859</td>
<td>5</td>
<td>Reliable</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td></td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Source: Pilot Study Data (2022)

A pilot study was conducted using ten (10) respondents from the insurance companies in Nairobi City County, Kenya. The pilot study was benchmarked alongside 0.7 mark as guided by Gliem and Gliem (2003). Form the tabulated data above, the variables listed all had a score above 0.7. The instrument mean score of reliability was 0.859, which is dependable and authentic for purposes of further employment in the actual data collection.

The researcher deployed assistants in the data collection process. This eased the collection of data from the studied companies as the distance between the companies may not have allowed fast data collection. Kenyatta University provided authorization for further examination, following which the NACOSTI granted permission for reaching the study’s target audience. Management consent was sought to ensure the availability of the targeted audience and the quality of information sourced by the researchers. The questionnaires were administered on the drop and pick system as consented by the researcher and respondents. The time allocated enabled the respondents consult with relevant sources for informed accurate reporting.
The data analysis instruments were subjected to scrutiny in order to ascertain consistency, completeness and comprehensibility. The research data collected was edited to remove errors. The questionnaires collected were coded for accurate computer entry and to ensure confidentiality of the respondents. Once data was entered in a computer, it was summarized using the excel tools and analyzed using descriptive and inferential tools of analysis. This included the calculation of percentages, mean, mode, median, variance, and measures of deviations.

Tools of inferential analysis of correlation and model of regression were employed. Pearson analysis was used so as to determine the percentage of association among the variables used. The variables’ level of significance was determined by use of linear regression analysis and the results tested for statistical significance using a confidence level of 95 percent. Information on customers’ satisfaction and organizational agility was captured and evaluated in this study. To regress the variables, organizational agility served as explanatory element that determines the customer satisfaction level as illustrated in equation (i).

\[ Y = \beta_0 + \beta_1 X_1 + \epsilon \] ………………………………………………………… (i)

Where:

- \( Y \) = Customers satisfaction
- \( X_1 \) = Information Technology Agility
- \( \beta_0 \) = regression Constant
- \( \beta_1 \) = Regression coefficients
- \( \epsilon \) = error term

The analysis of variance (ANOVA) was also used by the researcher to examine the relationship between organizational agility and customer satisfaction in insurance firms in Nairobi City County, Kenya. Tables, figures, charts, and graphs were used to display the findings of the data analysis.

5. INFORMATION TECHNOLOGY AGILITY

Participants disclosed information on extent to which information technology agility is embraced and sustained in their respective insurance companies. This entailed a brief description of the kind of infrastructure and nature of technology in use.

Table 2. The state of Information Technology agility in practice in the firm

<table>
<thead>
<tr>
<th>Statements</th>
<th>N</th>
<th>Mini</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The company has a well-established information technology sharing program with its customers.</td>
<td>112</td>
<td>1.00</td>
<td>5.00</td>
<td>4.18</td>
<td>0.76</td>
</tr>
<tr>
<td>There is a steady supply of innovation to improve IT access.</td>
<td>112</td>
<td>4.00</td>
<td>5.00</td>
<td>4.27</td>
<td>0.44</td>
</tr>
<tr>
<td>There is constant upgrading of IT infrastructure</td>
<td>112</td>
<td>1.00</td>
<td>5.00</td>
<td>4.24</td>
<td>0.79</td>
</tr>
<tr>
<td>There is an efficient delivery system of IT devices</td>
<td>112</td>
<td>3.00</td>
<td>5.00</td>
<td>4.39</td>
<td>0.56</td>
</tr>
<tr>
<td>There is an external IT linkage system</td>
<td>112</td>
<td>1.00</td>
<td>5.00</td>
<td>4.01</td>
<td>0.85</td>
</tr>
<tr>
<td>Operational sustainability is sustained through IT infrastructure</td>
<td>112</td>
<td>2.00</td>
<td>5.00</td>
<td>4.15</td>
<td>0.65</td>
</tr>
<tr>
<td>Aggregate Mean</td>
<td></td>
<td></td>
<td></td>
<td>4.21</td>
<td>0.68</td>
</tr>
</tbody>
</table>

Source: Research Data (2022)

Data posted illustrates clearly the general accord that there is an efficient delivery system of IT devices as depicted by a mean of 4.39 and a standard deviation of 0.56. Also, results show that there is a steady supply of innovation to improve IT access (M= 4.27, SD =0.44) and that there is constant upgrading of IT infrastructure (M=4.24, SD =0.79). This result simulates a research conclusion by Pallisa Branch, Mukyala (2020) that technology should be applied in phases to bring about the positive effect desired for customer satisfaction.

The evidence established that the insurance companies have a well-established information technology sharing program with its customers as shown by a mean of 4.18 and standard deviation of 0.76. Additionally, operational sustainability is sustained through IT infrastructure (M= 4.15, SD
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=0.65) and subsequently through the establishment of an external IT linkage system, denoted by the mean of 4.01 and standard deviation of 0.85.

The aggregate mean and standard deviation for sub-metrics under information technology agility recorded is 4.21 and 0.68 respectively, implying respondents had a general approval that their insurance companies had embraced information technology agility in a view of sustaining their operations which consequently improved customers’ satisfaction. These results are in line with research conclusion by Kyeremeh, Prempeh and Afful (2019) that ICTs enable businesses to produce more goods and services more quickly, more efficiently, and with higher quality, hence they are intimately linked to customer happiness.

6. CUSTOMER SATISFACTION

The researcher advanced to establish a clear picture of the occurrences in respect to customer satisfaction in Kenya's insurance firms.

<table>
<thead>
<tr>
<th>Statements</th>
<th>N</th>
<th>Mini</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The quality of the product is high compared to others in the market</td>
<td>112</td>
<td>3.00</td>
<td>5.00</td>
<td>4.09</td>
<td>0.64</td>
</tr>
<tr>
<td>There is unique form of packaging by the company that allows high patronage by customers</td>
<td>112</td>
<td>1.00</td>
<td>5.00</td>
<td>3.98</td>
<td>0.97</td>
</tr>
<tr>
<td>Customer service delivery is kept prompt by the company</td>
<td>112</td>
<td>3.00</td>
<td>5.00</td>
<td>4.12</td>
<td>0.67</td>
</tr>
<tr>
<td>The price of the service does not discriminate across customers</td>
<td>112</td>
<td>1.00</td>
<td>5.00</td>
<td>3.78</td>
<td>0.97</td>
</tr>
<tr>
<td>Responsiveness and the ability to resolve complaints and address reports is embraced by the company.</td>
<td>112</td>
<td>2.00</td>
<td>5.00</td>
<td>4.04</td>
<td>0.70</td>
</tr>
<tr>
<td>Aggregated Mean</td>
<td></td>
<td></td>
<td></td>
<td>4.00</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Source: Research Data (2022)

The computed 4.12 mean and standard deviation of 0.67 infers that there is a common response pointing out that customer service delivery is kept prompt by the company. The quality of the product is high compared to others in the market (M= 4.09, SD =0.64) and that the companies embrace sensitivity and receptiveness in addressing complaints and address reviews (M= 4.04, SD = 0.70). These results conform to empirical deductions by Amani, (2017) that organizational agility is of importance to the competitiveness of companies as it boosts their capability of offering high-quality services (products).

Statistical evidence further revealed that price of the service does not discriminate across customers. This is depicted by the mean of 3.98 and standard deviation of 0.97. Customers are fairly treated based on the kind of services/products offered and subsequently the amount of premiums to be paid. This creates a level ground in terms of the value of the money paid by customers resulting in a positive reaction from the market. Continued practice of this leads to the existence of positive results as substantiated by the study conducted by Kish and Rojuee (2016) in which it was affirmed that organizational agility has a remarkable positive correlation with customer satisfaction.

The above analyzed data on descriptive research conforms with dynamic capabilities theory developed by Teece, Pisano, and Shuen (1997) which articulates that success of international firms depends on the ability of firms to adapt to timely responses in innovation to catch up with product and service delivery. This is similar to research conclusion by Mukyala (2020) that technology should be applied in phases to bring about the positive effect desired for customer satisfaction.

From the findings on customer satisfaction, it is notable that most of the insurance companies in Nairobi City County are paying ardent attention to reports from customers on product packaging, price, overall communication and accessibility. These indicators ultimately determine their measures of customer satisfaction, as guided by the research by Chege, Wanjau and Nkirina (2019). This is also imaged by the conclusion from Gilaninia, Taleghani and Talemi, (2013) whereby the sustainability of an organization is a product of the avid observation and analysis of the changing customer needs.

7. CORRELATION ANALYSIS
In order to ascertain the link between study independent and dependent variable amongst Non-life insurance companies operating within Nairobi City County, Kenya, the study used Pearson moment correlation to determine the relationship.

**Table 4. Correlations Results**

<table>
<thead>
<tr>
<th></th>
<th>Customers Satisfaction</th>
<th>Information Technology Agility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers’ Satisfaction</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>112</td>
</tr>
<tr>
<td>Information Technology Agility</td>
<td>Pearson Correlation</td>
<td>.352</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>112</td>
</tr>
</tbody>
</table>

**Source: Research Data (2022)**

The table displays a correlation coefficient 0.352 and significant value 0.000 thereby affirming a positive correlation between information technology agility and customer’s satisfaction in terms of service delivery by insurance companies. These results relate with research conclusion by Kyeremeh, Prempeh and Afful (2019) that ICTs enable businesses to produce more goods and services more quickly, more efficiently, and with higher quality, hence they are intimately linked to customer happiness.

**8. Regression Test**

In this study, simple regression analysis was conducted to test the influence among predictor variables. The research used statistical package for social sciences (SPSS V 21.0) to code, enter and compute the measurements of the multiple regressions. The model summary is presented in the table below.

**Table 5. Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.590</td>
<td>.349</td>
<td>.330</td>
<td>34121</td>
</tr>
</tbody>
</table>

**Source: Research Data (2022)**

The study used coefficient of determination to evaluate the model fit. The adjusted $R^2$ also called the coefficient of multiple determinations, is the percent of the variance in the dependent explained uniquely or jointly by the independent variables. The model had an average adjusted coefficient of determination ($R^2$) of 0.330 and which implied that 33.0% of the variations on customer’s satisfaction in the insurance companies are explained by information technology agility.

The study further tested the significance of the model by use of ANOVA technique. The significance value was less than 0.05 indicating that the model was significant.

**Table 6. Summary of One-Way ANOVA results**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>6.726</td>
<td>3</td>
<td>2.242</td>
<td>19.258</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>12.574</td>
<td>108</td>
<td>.116</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>19.300</td>
<td>111</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Research Data (2022)**

**Critical value = 4.90**

From the ANOVA statics, the study established the regression model had a significance level of 0.000% which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value was greater than the critical value (19.258 > 2.686) an indication that information technology agility, has a significant effect on customer’s satisfaction amongst non-life insurance companies in Kenya.

**Table 7. Coefficients**
Customer Satisfaction in Non-Life Insurance Companies in Kenya: Does Information Technology Agility Matter?

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.636</td>
<td>.391</td>
<td>6.734</td>
<td>.000</td>
</tr>
<tr>
<td>Information Technology Agility</td>
<td>.356</td>
<td>.085</td>
<td>.331</td>
<td>.204</td>
</tr>
</tbody>
</table>

Source: Research Data (2022)

In addition, the study used the coefficient table to determine the study model. As per the SPSS generated output as presented in table above, the equation \( Y = \beta_0 + \beta_1 X_1 + \varepsilon \) becomes:

\[
\text{Customer Satisfaction} = 2.636 + 0.356 \text{ Information Technology Agility}
\]

Results show that a unit change in information technology agility while holding the other factors constant would enhance the customer’s satisfaction in the insurance companies by a factor of 0.356. This however, contradicts the findings by Kazakov, Ruiz-Alba and Munoz (2020) that service automation has an inverse effect on customer satisfaction and does not lead to an instant positive effect on customer satisfaction.

9. CONCLUSION

The first aim was to account for the extensiveness with which information technology agility affected customer satisfaction in Kenya’s non-life insurance firms. Inferential statistics revealed that putting other factors on hold, further intensification on information technology reinforce customer’s satisfaction among the insurance companies. Descriptive results established that most of the insurance firms invested in information technology systems for efficient service delivery. Most of these firms have a well-established information technology sharing program with its customers making it timely for the insurance agents to receive information from the clients.

Results further reveal that insurance companies were constantly upgrading their IT infrastructure. It was noted that insurance companies ensured operational sustainability through IT infrastructure, and most of the insurance companies have an external IT linkage system which ensures firm’s steady supply of innovation to improve IT access. It is critical to note that whereas the insurance companies have embraced technological change, the practice is well guided in phases though the department of Strategic Research and Development (R & D). Drawing from the empirical revelation, information technology agility positively influences customer satisfaction. Consequently, the strategic move improved service delivery through increased efficiency, transparency and accountability which in return ensures customer satisfaction and loyalty, which are critical in fostering firm’s competitiveness.

10. RECOMMENDATIONS WITH PRACTICAL IMPLICATIONS

The data implies that adoption of information technology agility was found to enhance client satisfaction and therefore the administration of insurance companies in Kenya should consider continuous embracement of ICT systems in their service delivery process, however the adoption process should factor in other aspects that may hinder systems potential or moderate on system use. Such aspects may include staff ICT competency, support services, clients’ literacy levels, quality with physical infrastructure as well as systems customization that dictate on its ease to use.

REFERENCES


Customer Satisfaction in Non-Life Insurance Companies in Kenya: Does Information Technology Agility Matter?


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