

Volume 6, Issue 1, pg. 1511-1525, 2024

### TECHNOLOGY COMMUNICATION AND FIRM PERFORMANCE OF KENYA TEA PRODUCERS COMPANIES

### <sup>1</sup>Soi Judith Cherono, <sup>2</sup>Dr. Nyang'au Samson Paul, PhD <sup>3</sup>Dr. Tobias Mwalili, PhD

<sup>1</sup>PhD Student, Jomo Kenyatta University of Agriculture and Technology <sup>2,3</sup> Lecturer, Jomo Kenyatta University of Agriculture and Technology

### ABSTRACT

The study sought to examine the role of Technology Communication on performance of Tea Producers companies in Kenya. The study reviewed theoretical and empirical literature relevant to the role of Technology Communication on performance of Tea Producers companies in Kenya. The conceptual framework was discussed to show the relationship between Technology Communication (independent variable) and firm performance (dependent variable). The philosophy that guided the research is positivism philosophy. This philosophy involves the use of existing theories to develop hypothesis to be tested during the research process. This allowed the study to come up with various assumptions. The study used cross-sectional survey design to establish the role of Information Technology strategic alignment on performance of Tea Producers companies in Kenya. The study also used both qualitative and quantitative mixed methods. The target population was tea producers' companies who are EATTA members from Kenya. This is because it is likely that the players have relevant and accurate information needed in this study. The study considered all 29 tea producers' members of the East Africa Tea Trade Association (EATTA). Respondents' population comprised of six top managers from each organization translating to 174 top managers. The sample size was 121 top managers. They were targeted because top managers of organizations mostly handle strategic management issues. Purposive sampling technique was used to select respondents. The study mainly relied on primary data. The study used a questionnaire with diverse set of questions for the respondent to answer. A pilot study was carried out in order to ascertain the validity and reliability of the questionnaire. Descriptive statistics in the form of means and standard deviations were computed on the Technology Communication and performance measurement scales to provide an initial outline of the distribution of the participants' responses. The study concluded that Technology Communication has a positive and statistically significant influence on performance of Tea Producers companies in Kenya. Based on the findings, this study recommends that the management of Tea Producer companies should ensure effectiveness in adopting information technology and using it in governance of their organization. In addition, the management of Tea Producer companies should ensure their employees are well equipped with information technology skills to improve their productivity.

Key Words: Technology Communication, Performance of Tea Producers Companies

## **Background of the Study**

In the current business environment, the interaction and linkages between a business operations and IT strategies is considered a top priority among the top management of a firm if they have to respond appropriately to the changes in the operating environment Wu, Straub, and Liang (2015). Information technology has become a strategic weapon in the fast-changing environment of business. IT-business strategic alignment is the fit between IT strategy and business strategy in organizations (Henderson, 1999). Strategic alignment helps organizations use their IT resources effectively to support their business strategies, thus enables them to maximize the impact of their IT investments, integrate IT and business processes, and increase competitiveness, revenue growth, and profitability (Henderson, 1999; Alter, 2005; Pearlman & Baker, 2005; Byrd et al, 2006; Coltman, 2015). However, despite the importance and potential benefits of the alignment, the number of organizations that successfully achieve such alignment is shown to be considerably small (Hinkelmann & Pasquini, 2014).

An organizational ability to maintain a competitive advantage is determined by the capacity to acquire and deploy resources which are coherent with the organization's competitive needs (Parto, Sofian, & Saat, 2016). Beffers (2018) posited that firms could improve their performance through alignment with the business environment and internal alignment with both resources and infrastructure. Therefore, strategic alignment is critical for organizational effectiveness and efficient resource use. According to Benbya, Nan, Tanriverdi, and Yoo (2020), a tight integration between IT and business strategies result in reduced strategic flexibility and inability to react effectively to environmental changes. Schallmo and Brecht (2016), found that some companies fall into an "alignment trap" where seemingly high levels of IT-business alignment did not lead to organizational effectiveness and enhanced performance.

Communications measures the level and effectiveness of the exchange of ideas, knowledge, and information between IT and business organizations which enables both to understand the respective strategies, plans, business and IT environments, risks, priorities (Bani, 2011). As addressed in a research study by Jerry Luftman in 2004; that for over 20 years, business-IT strategic alignment is ranked as a top management concern where business and IT executives are continually looking for best management practices to help them align their business and IT strategies. Strategic alignment seems to grow in importance as business organizations attempt to link business and IT due to dynamic business strategies and continuously evolving technologies at a rapid pace which supports the need to explore it further(Chebrolu, 2010).

The communication element is needed for alignment and is deemed valid if the receiver understands the information from the sender (Izzati, Adnan, & Jambari, 2016). Over the last few years, development over ICT has been swift and there are some evidences of substantial changes in practices like the Supply Chain Management (SCM) under which positive outcomes can still be obtained in the management of equipment (Biniazi et al., 2011). Communication technologies have a beneficial effect on the success of SMEs, current socio-economic conditions within the districts under which businesses often affect communications technology preference and significantly shape the influence of communications technology on business performance, and communication technologies tend to play a more valuable and substantial role on local economy growth (Sanchez & Bayona-Oré, 2020). Leadership, support from senior management and good working relations also form part of effective communication (Navedo-Samper, Ferrer, & Rivera-Ruiz, 2013).

In today's turbulent and competitive business environment, survival not even success has become a major challenge (Bass & Chakrabarty, 2014). The foundation strategy that any type of business should follow is to align Information Technology (IT) with business goals. The company should have clear business goals and employs its IT system to exactly achieve these goals. The company can build a state-of-the-art IT system or a website that cost a fortune, but if this system is not representative of the original business goals; it will not be effective if not completely useless. Knowledge and information that is appropriately passed between management and employees also affects the attitude and eagerness of employees to participate. It also make a success of the alignment process through the achievement of business goals, curb resistance from both users of IT services and IT employees, intentions and goals have to be effectively communicated such that they are understood by those who receive the information (Tafti et al., 2019). To foster cooperation, people need to understand their roles and what is required of them. At an operational level, business units have to have a shared perspective on what business processes are in place to achieve operational objectives, and these ultimately will support the overall business objectives (Tarhini et al., 2015). It is a management role to communicate what processes are needed to support a particular function, and through IT processes management will help effect that business process (Panda & Rath, 2018).

Many Scholars (e.g. Luffman, 2000; Poelen; Stamper et al., 2012) have identified that communication as one of the essential factors that link between the IT business alignment SMEs performance. The other researchers such as (Helaly, 2012; Naidoo, 2011; Gutierrez et al., .2009; Sledgianowski & Luftman, 2005) who claimed that communication leads to the successful company have highlighted this. Therefore, communication is chosen to be one of the factors that become of its essential role that has been mentioned by many authors explained earlier. For several years, information technologies have been seen as a technological means to implement business objectives (Li, Liu, Belitski, Ghobadian, & O'Regan, 2016). However, information and communication technologies growth imply creation of dedicated teams and departments working exclusively on the lead of IT projects inside the enterprise. (Baina et al. 2008). IT strategy intends to contribute positively to the creation of new business strategies or better support existing business strategy (Schallmo & Brecht, 2016). This aim is often ensured by prospecting types and range of IT systems and capabilities potentially available to the organization. Linking business and IT more tightly offers many benefits, including improved decision-making and corporate agility (Patterson, 2020).

In current times, IT plays a key role in implementing the strategic plans of the companies. It has become vital for the organizations to provide the services in improved and efficient way (Weiss & Thorogood, 2011). Business strategy and IT strategy should work in uniformity for the business user to understand the enterprises' system alignment with business information integration. (Sarhandiet al. 2011). IT and IS are very important in the processes of business planning, design, analysis, operations management, and strategic decision-making. Alignment is described as the appropriate and timely application of IT, in harmony with business objective, strategies, and requirements (Yayla & Hu, 2012). Business and IT alignment occurs when the respective strategies are interwoven in such a way that the right things are done. In addition, things are done right, to deliver greater value to the organization. This implies that successful alignment is a two-way relationship, a give and take between IT and business (Infosys 2012). The communication is chosen to be one of the factors because of its essential role that has been mentioned by many authors explained earlier, who stated that communication is considered as an essential element to adopt factors of IT-business alignment. This study therefore sought to assess the role of Technology Communication on performance of Tea Producers companies in Kenya

## Statement of the Problem

According to Gerow et al. (2015); Luftman & Ben-Zvi (2018); Orozco et al. (2019), strategic alignment enables an organization to realize value from the heavy Information Technology investments and dedicate critical IT resources to the core areas which in turn helps in addressing business challenges and improve business value (Chau et al., 2020). Nonetheless, research, which has been carried on manufacturing and producer companies in Kenya, indicate that the firms did fully implement Information Technology, but their performance did not increase with a high margin (Ellis, 2019 and K'Aol, 2018). External factors have been cited. Such factors include markets and infrastructure (Johnson, 2014; Akoten et al., 2006 and Ellis, 2019).

This has been done despite the known fact that businesses operate within external and internal environments. Internal domains of the business environment have not been exhaustively examined. The least investigated aspects of this internal are how dynamics of information technology strategic alignment such as communications, IT Governance, Value, Partnership, Technology Scope, and Skills have been used to develop and improve organizational performance, hence a problem for continued research (Chou et al., 2015; Yayla & Hu, 2019; Tallon & Kraemer, 2017; Croteau et al., 2017).

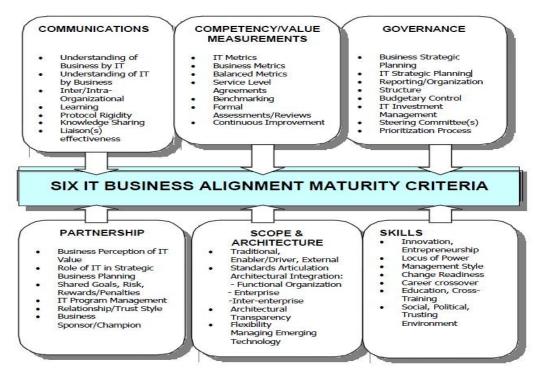
The Production firms in Kenya have been recording a decline in performance over the past two decades (Mwangi, 2020). While the tea industry was the second largest GDP contributor in the country, in the year 2000, it is now ranked third. Moreover, the share of the sector to the GDP has seen a declining trend. The Tea sector in Kenya, contributed on average 60% of the foreign exchange earnings up to the year 2018 when its contribution dropped to 25% (Machuki, 2019). Despite the considerably large investments in IT by production firms, only a few studies on this topic have revealed the desired positive impact (Schwarz, Kalika, Kefi, & Schwarz, 2010; Wong, Ngan, Chan, & Chong, 2012). Due to this fact, and due to the recent global economic recessions, there is an increased pressure by senior management to reduce IT spending and to simultaneously increase the business value from IT (Coleman & Chatfield, 2011). A majority of productivity indicators point to a stagnating productivity growth or even a productivity slowdown at the aggregate level (DeJager, 2015; Almajali & Dahalin, 2011). The tea industry contributes 4% of Kenya's Gross Domestic Product (GDP) and 15% of Agricultural Gross Domestic Product (Tea Board of Kenya, 2022). This study therefore sought to assess the role of Technology Communication on performance of Tea Producers companies in Kenya

# **General Objective**

To examine the role of Technology Communication on performance of Tea Producers companies in Kenya

# **Theoretical Framework**

# Figure 2.1: Strategic Alignment Maturity

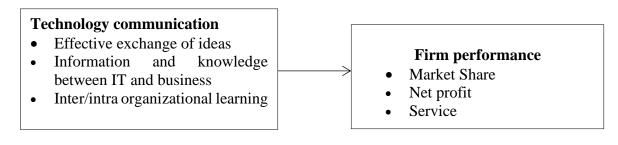


Alignment Maturity Criteria Modle (Luftman J. N 2000)

Several previous studies have examined the validity of the SAM model and found it to be valid and practical, and to be a good predictor of alignment and firm performance (Luftman and Kempaiah, 2007; El-Masri et al., 2015; Luftman et al. 2017). The SAM model also aligns well with an assertion made by Peppard et al. (2014) that strategic management research should move away from a macro focus towards a micro focus that "emphasizes the actual day-to-day activities, contexts, processes and content that relate to strategic outcomes". Moreover, while Sledgianowski et al. (2006) developed and validated the model to measure the maturity of IT-business strategic alignment mechanisms, Chen (2010) cross-validated the model to evaluate company alignment maturity. In addition, Belfo and Sousa (2013) indicated that SAM was one of the most promising instruments in the IT-business alignment research in terms of validity. The study will use the six dimensions of Strategic Alignment Maturity to measure Information Technology Strategic alignment and examine how it influence performance.

### **Conceptual Framework**

Figure 2.2 illustrate the diagrammatical presentation of the relationship between variables under study drawn from the literature review.



## **Independent Variables**

**Dependent Variable** 

## Empirical Review Technology Communication

Communications measures the level and effectiveness of the exchange of ideas, knowledge, and information between IT and business organizations which enables both to understand the respective strategies, plans, business and IT environments, risks, priorities (Bani, 2011). As addressed in a research study by Jerry Luftman in 2004; that for over 20 years, business-IT strategic alignment is ranked as a top management concern where business and IT executives are continually looking for best management practices to help them align their business and IT strategies. Strategic alignment seems to grow in importance as business organizations attempt to link business and IT due to dynamic business strategies and continuously evolving technologies at a rapid pace which supports the need to explore it further (Chebrolu, 2010).

The communication element is needed for alignment and is deemed valid if the receiver understands the information from the sender (Izzati, Adnan, & Jambari, 2016). Over the last few years, development over ICT has been swift and there are some evidences of substantial changes in practices like the Supply Chain Management (SCM) under which positive outcomes can still be obtained in the management of equipment (Biniazi et al., 2011). Communication technologies have a beneficial effect on the success of SMEs, current socio-economic conditions within the districts under which businesses often affect communications technology preference and significantly shape the influence of communications technology on business performance, and communication technologies tend to play a more valuable and substantial role on local economy growth (Sanchez & Bayona-Oré, 2020). Leadership, support from senior management and good working relations also form part of effective communication (Navedo-Samper, Ferrer, & Rivera-Ruiz, 2013).

In today's turbulent and competitive business environment, survival not even success has become a major challenge (Bass & Chakrabarty, 2014). The foundation strategy that any type of business

should follow is to align Information Technology (IT) with business goals. The company should have clear business goals and employs its IT system to exactly achieve these goals. The company can build a state-of-the-art IT system or a website that cost a fortune, but if this system is not representative of the original business goals; it will not be effective if not completely useless.

Knowledge and information that is appropriately passed between management and employees also affects the attitude and eagerness of employees to participate. It also make a success of the alignment process through the achievement of business goals, curb resistance from both users of IT services and IT employees, intentions and goals have to be effectively communicated such that they are understood by those who receive the information (Tafti et al., 2019). To foster cooperation, people need to understand their roles and what is required of them. At an operational level, business units have to have a shared perspective on what business processes are in place to achieve operational objectives, and these ultimately will support the overall business objectives (Tarhini et al., 2015). It is a management role to communicate what processes are needed to support a particular function, and through IT processes management will help effect that business process (Panda & Rath, 2018).

Many Scholars (e.g. Luffman, 2000; Poelen; Stamper et al., 2012) have identified that communication as one of the essential factors that link between the IT business alignment SMEs performance. The other researchers such as (Helaly, 2012; Naidoo, 2011; Gutierrez et al., .2009; Sledgianowski & Luftman, 2005) who claimed that communication leads to the successful company have highlighted this. Therefore, communication is chosen to be one of the factors that become of its essential role that has been mentioned by many authors explained earlier. For several years, information technologies have been seen as a technological means to implement business objectives (Li, Liu, Belitski, Ghobadian, & O'Regan, 2016). However, information and communication technologies growth imply creation of dedicated teams and departments working exclusively on the lead of IT projects inside the enterprise. (Baina et al. 2008). IT strategy intends to contribute positively to the creation of new business strategies or better support existing business strategy (Schallmo & Brecht, 2016). This aim is often ensured by prospecting types and range of IT systems and capabilities potentially available to the organization. Linking business and IT more tightly offers many benefits, including improved decision-making and corporate agility (Patterson, 2020).

In current times, IT plays a key role in implementing the strategic plans of the companies. It has become vital for the organizations to provide the services in improved and efficient way (Weiss & Thorogood, 2011). Business strategy and IT strategy should work in uniformity for the business user to understand the enterprises' system alignment with business information integration. (Sarhandiet al. 2011). IT and IS are very important in the processes of business planning, design, analysis, operations management, and strategic decision-making. Alignment is described as the appropriate and timely application of IT, in harmony with business objective, strategies, and requirements (Yayla & Hu, 2012). Business and IT alignment occurs when the respective strategies are interwoven in such a way that the right things are done. In addition, things are done right, to deliver greater value to the organization. This implies that successful alignment is a two-way relationship, a give and take between IT and business (Infosys 2012). The communication is chosen to be one of the factors because of its essential role that has been mentioned by many authors explained earlier, who stated that communication is considered as an essential element to adopt factors of IT-business alignment.

# **Research Philosophy**

# **RESEARCH METHODOLOGY**

The philosophy that guided the research is positivism philosophy. This philosophy involves the use of existing theories to develop hypothesis to be tested during the research process. This allows the study to come up with various assumptions. Kothari (2011) advised that positivism philosophy

adhere to the view that only factual knowledge gained through observation including measurement is trustworthy. Further, the role of the researcher is limited to data collection and interpretation in an objective way. Saunders et al. (2009) affirms that positivism depends on quantifiable observations that lead to statistical analysis.

# **Research Design**

According to Waiganjo (2013), the purpose of research design is to guide data collection and analysis as well as acquire answers to different questions. Research design is a plan and procedure for research that span the decisions ranging from broad postulations to detailed methods of data collection and analysis (Creswell, 2014). The study used cross-sectional survey design to establish the role of Information Technology strategic alignment on performance of Tea Producers companies in Kenya. A cross-sectional survey research design enables collection of data about a given phenomenon within a limited time horizon which can help describe incidences of events or provide an explanation of factors related to an organization or industry (Saunders, 2013; Theuri 2015).

A cross-sectional survey research design is useful in overcoming time and budget constraints (Theuri, 2015). Brusco (2012) informed that a cross-sectional survey design is cost effective per respondent in comparison to other methods as it employs easier method of data collection. The design allows the study to have a much larger sample size thus promoting the accuracy of the conclusions arrived at and data obtained. This design is appropriate because tea industry is a multistakeholder industry. The study also used both qualitative and quantitative mixed methods.

# **Target Population**

A target population consists of a group of events, people or items of interest with a common recognizable trait (Kothari, 2012). The target population was tea producers' companies who are EATTA members from Kenya. This is because it is likely that the players have relevant and accurate information needed in this study. The population consists of all 29 tea producers' members of the East Africa Tea Trade Association (EATTA). Respondents' population comprised of six top managers from each organization translating to 174 top managers. The top managers were targeted because top managers of organizations mostly handle strategic management issues. **Sampling Frame** 

The sampling frame describes the list of all population units from which the sample is selected (Cooper & Schindler, 2003). Sampling frame is a physical representation of the target population and comprises all the units that are potential members of a sample (Kothari, 2008). Sampling frame enables the researcher to draw reasonably adequate random sample where all members of the population of interest gets an equal chance of being selected for the sample (Ng'ethe, 2013). The sampling frame for this study consisted of a list of all 29 tea producers EATTA members from Kenya shown in Appendix IV.

# **Sample Size**

A sample is a subset of the population of interest (Mugenda & Mugenda, 2003). Respondents' population comprised of six top managers from each organization translating to 174 top managers. The top managers were targeted because top managers of organizations mostly handle strategic management issues. Sekaran and Bougie (2010), suggested that a sample size larger than 30 and less than 500 is deemed appropriate for most research. Slovin's formula (1960) was applied as illustrated:

n = N/(1+Ne2),

Where:

n = Sample Size

N = Total Population

e = Error of Tolerance with a confidence level of 95 % (giving a margin error of 0.05)

n = 174 / (1 + 174 \* 0.05 \* 0.05) = 121

Hence, the sample size was 121.

Purposive sampling technique was used to select top managers of the 29 tea producers company. According to Bryman (2012); Saunders et al. (2009), purposeful sampling is appropriate when the researcher intends to select informative.

## **Data Collection Instruments**

The study used a questionnaire with diverse set of questions for the respondent to answer.

Secondary sources also suggest problem formulations and further research directions and allows the researcher to address issues and detect gaps in existing literature regarding different segments of this research area. Secondary data included the evaluation of results of other people's primary data collection as reported in a wide variety of formats, such as company annual report, technical manuals, government and trade body publications, books and journals. This study made reference to books, articles and database under FAO (Food and Agriculture Organization of United Nations) to obtain the current and authentic data of tea production, consumption, volume and trade as well as related studies on Information Technology strategic alignment and firm performance. **Pilot Study** 

A pilot study was carried out in order to ascertain the validity and reliability of the questionnaire. The subjects participating in the pilot study were not included in the final study to avoid research fatigue and response biasness. Questionnaires were administered to three top managers from four (4) tea producer companies out of the 29 EATTA member companies in Kenya, giving a respondent number of twelve (12) top managers. This represents 10 % of the study sample. Kothari (2014) considered a sample size of between 10% and 20% of the sample size for the actual study to be reasonable. The Companies were randomly selected.

# **Data Analysis and Presentation**

Data analysis process involves examining the data after collection to ensure its completeness, consistency and usability. Once data is attained through questionnaires, it was organized and prepared for analysis using Statistical Package for Social Sciences (SPSS) version 23. The statistics generated included frequencies, descriptive and inferential statistics. Microsoft excel was used to complement SPSS where necessary. Descriptive statistics in the form of means and standard deviations was computed on the Information Technology strategic alignment and performance measurement scales to provide an initial outline of the distribution of the participants' responses on these variables as well as gauging the respondents' attitudes regarding their extent of agreement or disagreement on the construct measurement items.

To draw conclusions about a population based on a regression analysis performed on sample data, testing the underlying assumptions for multiple regression analysis is significantly essential, given the complication of the relationship between variables (Hair *et al.*, 2010). The study carried out normality, autocorrelation and multicollinearity tests. The test for normality was conducted to ascertain whether the data collected and used in the analysis is normally distributed. Normality test was undertaken through use of Shapiro-Wilk tests. Hair et al. (2006) stated that normality is the most basic assumption in multivariate analysis. Assumption of normality refers to the shape of the data distribution for an individual metric variable and its correspondence to the normal distribution, the benchmark for statistical methods (Hair *et al.*, 2006). Normality in the data is often a conventional assumption in the estimation process (Bai, 2005).

Test for Autocorrelation was also carried out to establish how independent variables correlate with each other and the effect of the relationship amongst the variables. Multicollinearity was determined by the level of Variance Inflating Factor (VIF) and Tolerance.

Multiple regression model was used to test the significance of the influence of the predictor variables on the dependent variable. Valipour et al. (2012) used regression model in the study on the effect of cost leadership and product differentiation strategies on firm performance in India. Pawaskar (2009) also applied this model to test hypothesis of diversification and performance improvement in Malaysia firms. The regression results on how Technology Communications, and IT Skills performance of tea producers was also demonstrated.

## PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

### **Descriptive Statistics Analysis**

### **Technology Communication and Firm Performance**

The objective of the study was to establish the role of Technology Communication on performance of Tea Producers companies in Kenya. The respondents were requested to indicate their level of agreement on various statements relating to Technology Communication and performance of Tea Producers companies in Kenya. A 5 point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 4.1.

### **Table 4. 1: Technology Communication and Firm Performance**

|   | Mean  | Std. Deviation |
|---|-------|----------------|
| IT understands the organization's business environment (e.g., its   | 3.983 | 0.981          |
| customers, competitors, processes, partners/alliances)  |       |                |
| Business departments understands the IT environment (e.g., its current  | 3.966 | 0.850          |
| and potential capabilities, systems, services, processes)   |       |                |
| Organizational learning occurs through formal, unifying, bonding<br>methods, with feedback measures to monitor and promote effectiveness<br>of learning | 3.931 | 0.914          |
| There is formal knowledge sharing at the functional unit level, at the corporate level, and with business partners/alliances                            | 3.896 | 0.947          |
| We regularly use liaisons to facilitate the transfer of IT knowledge to the business and external partners and business knowledge to IT.                | 3.889 | 0.856          |
| There is better coordination and integration of information flow and activities within and/or between firm boundaries                                   | 3.841 | 0.911          |
| We have improved communication and productivity between the business and IT department.   | 3.798 | 0.830          |
| There is an effective exchange of ideas   | 3.753 | 0.912          |
| Aggregate   | 3.788 | 0.873          |

From the results, the respondents agreed that IT understands the organization's business environment (e.g., its customers, competitors, processes, partners/alliances). This is supported by a mean of 3.983 (std. dv = 0.981). In addition, as shown by a mean of 3.966 (std. dv = 0.850), the respondents agreed that business departments understands the IT environment (e.g., its current and potential capabilities, systems, services, processes). Further, the respondents agreed that organizational learning occurs through formal, unifying, bonding methods, with feedback measures to monitor and promote effectiveness of learning. This is shown by a mean of 3.931 (std. dv = 0.914).

The respondents also agreed that there is formal knowledge sharing at the functional unit level, at the corporate level, and with business partners/alliances. This is shown by a mean of 3.896 (std. dv = 0.947). With a mean of 3.889 (std. dv = 0.856), the respondents agreed that they regularly use liaisons to facilitate the transfer of IT knowledge to the business and external partners and business knowledge to IT.

From the results, the respondents agreed that there is better coordination and integration of information flow and activities within and/or between firm boundaries. This is supported by a mean of 3.841 (std. dv = 0.911). In addition, as shown by a mean of 3.798 (std. dv = 0.830), the respondents agreed that they have improved communication and productivity between the business and IT department. Further, the respondents agreed that there is an effective exchange of ideas. This is supported by a mean of 3.753 (std. dv = 0.912).

Many Scholars (e.g. Luffman, 2000; Poelen; Stamper et al., 2012) have identified that communication as one of the essential factors that link between the IT business alignment SMEs performance. The other researchers such as (Helaly, 2012; Naidoo, 2011; Gutierrez et al., .2009; Sledgianowski & Luftman, 2005) who claimed that communication leads to the successful company have highlighted this. Therefore, communication is chosen to be one of the factors that become of its essential role that has been mentioned by many authors explained earlier. For several years, information technologies have been seen as a technological means to implement business objectives (Li, Liu, Belitski, Ghobadian, & O'Regan, 2016). However, information and communication technologies growth imply creation of dedicated teams and departments working exclusively on the lead of IT projects inside the enterprise. (Baina et al. 2008). IT strategy intends to contribute positively to the creation of new business strategies or better support existing business strategy (Schallmo & Brecht, 2016).

The communication element is needed for alignment and is deemed valid if the receiver understands the information from the sender (Izzati, Adnan, & Jambari, 2016). Communication technologies have a beneficial effect on the success of SMEs, current socio-economic conditions within the districts under which businesses often affect communications technology preference and significantly shape the influence of communications technology on business performance, and communication technologies tend to play a more valuable and substantial role on local economy growth (Rufai, 2014).

It is a management role to communicate what processes are needed to support a particular function, and through IT processes management will help effect that business process (Panda & Rath, 2018).

## Performance of Tea Producers Companies in Kenya

The respondents were requested to indicate their level of agreement on various statements relating to performance of Tea Producers companies in Kenya. A 5 point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 4.2.

| Table 4. 2: Performance of Tea Producers Companies in Kenya |
|---|
|---|

|  | Mean  | Std.<br>Deviation |
|--|-------|-------------------|
| Information Technology Strategic Alignment has improved quality of service                       | 3.996 | 0.865             |
| Information Technology Strategic Alignment has Improved production efficiency                    | 3.979 | 0.945             |
| Information Technology Strategic Alignment has improve processes in the company                  | 3.938 | 0.611             |
| Information Technology Strategic Alignment has led to new Product development                    | 3.931 | 0.908             |
| Information Technology Strategic Alignment has reduced pricing of products and Cost of operation | 3.893 | 0.865             |
| Information Technology Strategic Alignment has led to product diversification                    | 3.854 | 0.945             |
| Information Technology Strategic Alignment has enhanced product differentiation                  | 3.795 | 0.661             |
| Information Technology Strategic Alignment has introduced new markets                            | 3.754 | 0.918             |
| Information Technology Strategic Alignment has improved Image and client loyalty                 | 3.689 | 0.852             |
| Information Technology Strategic Alignment has increased sales growth                            | 3.654 | 0.915             |
| Aggregate  | 3.772 | 0.841             |

From the results, the respondents agreed that information technology strategic alignment has improved quality of service. This is supported by a mean of 3.996 (std. dv = 0.865). In addition, as shown by a mean of 3.979 (std. dv = 0.945), the respondents agreed that information technology strategic alignment has Improved production efficiency. The respondents also agreed that information technology strategic alignment has improved processes in the company. This is shown by a mean of 3.938 (std. dv = 0.611). With a mean of 3.931 (std. dv = 0.908), the respondents agreed that information technology strategic alignment has led to new Product development.

From the results, the respondents agreed that information technology strategic alignment has reduced pricing of products and Cost of operation. This is supported by a mean of 3.893 (std. dv = 0.865). In addition, as shown by a mean of 3.854 (std. dv = 0.945), the respondents agreed that information technology strategic alignment has led to product diversification. The respondents also agreed that IT Strategic Alignment has enhanced product differentiation. This is shown by a mean of 3.795 (std. dv = 0.661). With a mean of 3.754 (std. dv = 0.918), the respondents agreed that IT Strategic Alignment has introduced new markets. The respondents agreed that IT Strategic Alignment has introduced new markets. The respondents agreed that IT Strategic Alignment has improved Image and client loyalty. This is shown by a mean of 3.689 (std. dv = 0.852). With a mean of 3.654 (std. dv = 0.915), the respondents agreed that IT Strategic Alignment has increased sales growth.

It has been argued that increasing operational effectiveness of IT in business through the right use of IT as a service and business-driven exploitation will affect the business performance of the firm (Henderson and Venkatraman, 1991 & 1993). Strategic IT alignment leads to increased profits for an organization, beyond what would be expected to be produced using only industry and strategy variables (Floyd and Woolridge, 1990; Powell, 1992; Chan et al., 1997; Cragg et al., 2002).

Researchers identified many positive effects of such alignment including increased operational efficiencies, innovativeness, additional competitive advantage, and ultimately, improved performance (Almajali & Dahalin, 2011; Chan, Sabherwal, &Thatcher, 2006; Henderson & Venkatraman, 1993; Kalkan et al., 2011; Raymond & Bergeron, 2008; Wagner, 2014). At the same time, failure to achieve alignment may result in adverse outcomes such as resource waste, poorer financial performance and organizational outcomes (Alaceva & Rusu, 2015; Chen et al, 2010; Ravishankar et al, 2011).

Sabherwal and Chan (2001) found that alignment is significantly correlated with perceived business performance, although this link is complex and is dependent on the business strategy. Tallon (2003) found that while 70% of companies reduced costs or improved sales and customer service after increasing strategic alignment, 30% saw no improvement or even a decline. This was attributed to the failure of alignment to be achieved with some degree of flexibility. That is, companies locked themselves into an alignment plan (via investing in various technologies) that hindered their ability to react to change. Similarly, Palmer and Markus (2000) did not find a relationship between alignment and performance when examining the use of Quick Response technology in the retailing sector. It has been argued that these negative or unclear results are due to a lack of control variables in the analyses. Chan et al. (2006) found that factors such as industry, organizational size, and type of strategy all had an impact on the performance implications of alignment. Byrd et al. (2006) found that strategic alignment had a direct impact on performance as a moderator between IT investment and business performance. The real value in alignment was in leveraging the firm's IT investment.

## **Correlation Analysis**

## **Table 4. 3: Correlation Coefficients**

|                             |  | Organization<br>Performance | Technology<br>Communication |    |
|-----------------------------|--|-----------------------------|-----------------------------|----|
| Organization Performance    | Pearson Correlation<br>Sig. (2-tailed) | 1                           |                             |    |
| 6                           | N                                      | 116                         |                             |    |
| Technology<br>Communication | Pearson Correlation<br>Sig. (2-tailed) | .910 <sup>**</sup><br>.000  |                             | I  |
|                             | N                                      | 116                         | 1                           | 16 |

The results revealed that there was a very strong relationship between Technology Communication and performance of Tea Producers companies in Kenya (r = 0.910, p value =0.000). The relationship was significant since the p value 0.000 was less than 0.05 (significant level). The findings are in line with the results of Izzati, Adnan, and Jambari, (2016) who revealed that there is a very strong relationship between Technology Communication and organization performance

## **Test for Hypothesis One**

The objective of the study was to find out Technology Communication has no significant role on performance of Tea Producers companies in Kenya. The corresponding hypothesis was:

Ho<sub>1</sub>: Technology Communication has no significant role on performance of Tea Producers companies in Kenya.

## Table 4.4: Model Summary for Technology Communication

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .471 <sup>a</sup> | .222     | .219              | .70542                     |

a. Predictors: (Constant), Technology Communication

A univariate analysis was therefore conducted to test the null hypothesis. From the model summary findings in Table 4.4, the r-squared for the relationship between Technology Communication and performance of Tea Producers companies in Kenya was 0.222; this is an indication that at 95% confidence interval, 22.2% variation in performance of Tea Producers companies in Kenya can be attributed to changes in Technology Communication. Therefore, Technology Communication can be used to explain 22.2% change in performance of Tea Producers companies in Kenya. However, the remaining 77.8% variation in performance of Tea Producers companies in Kenya suggests that there are other factors other than Technology Communication that explain performance of Tea Producers companies in Kenya suggests that there are other factors other than Technology Communication that explain performance of Tea Producers companies in Kenya.

| M | odel       | Sum of Squares | df  | Mean Square | F      | Sig.              |
|---|------------|----------------|-----|-------------|--------|-------------------|
|   | Regression | 42.179         | 1   | 42.179      | 225.55 | .000 <sup>b</sup> |
| 1 | Residual   | 21.311         | 114 | .187        |        |                   |
|   | Total      | 63.49          | 115 |             |        |                   |

| <b>Table 4.5:</b> | ANOVA | for Tech | nology C | ommunication |
|-------------------|-------|----------|----------|--------------|
|-------------------|-------|----------|----------|--------------|

a. Dependent Variable: performance of Tea Producers companies in Kenya

b. Predictors: (Constant), Technology Communication

The analysis of variance was used to determine whether the regression model is a good fit for the data. From the analysis of variance (ANOVA) findings in Table 4.25, the study found out that that  $Prob>F_{1,131}= 0.000$  was less than the selected 0.05 level of significance. This suggests that the model as constituted was fit to predict performance of Tea Producers companies in Kenya. Further, the F-calculated, from the table (225.55) was greater than the F-critical, from f-distribution tables (3.924) supporting the findings that Technology Communication can be used to predict to predict performance of Tea Producers companies in Kenya.

| Model                                    | 011011 | nstandardized Standardized<br>Coefficients Coefficients |      | t      | Sig. |
|--|--------|---|------|--------|------|
|  | В      | Std. Error  | Beta |        |      |
| (Constant)                               | 0.142  | .035  |      | 4.0571 | .000 |
| <sup>1</sup> Technology<br>Communication | .411   | .094  | .412 | 4.372  | .000 |

 Table 4.6: Beta Coefficients for Technology Communication

a. Dependent Variable: performance of Tea Producers companies in Kenya

From the results in table 4.6, the following regression model was fitted.

$$Y = 0.142 + 0.411 X_4$$

## (X<sub>4</sub> is Technology Communication)

The coefficient results showed that the constant had a coefficient of 0.142 suggesting that if Technology Communication was held constant at zero, performance of Tea Producers companies in Kenya would be at 0.142 units. In addition, results showed that Technology Communication coefficient was 0.411 indicating that a unit increase in Technology Communication would result in a 0.411 unit improvement in performance of Tea Producers companies in Kenya. It was also noted that the P-value for Technology Communication was 0.000 which is less than the set 0.05 significance level indicating that Technology Communication was significant. Based on these

results, the study rejected the null hypothesis and accepted the alternative that Technology Communication has positive significant influence on performance of Tea Producers companies in Kenya.

### Conclusions

The study concludes that Technology Communication has a positive and statistically significant influence on performance of Tea Producers companies in Kenya. Findings revealed that effective exchange of ideas, information and knowledge between IT and business and inter/intra organizational learning influences performance of Tea Producers companies in Kenya. This implies that a unit improvement in Technology Communication would lead to improvement in performance of Tea Producers companies in Kenya.

### Recommendations

The study found that Technology Communication has a positive and statistically significant influence on performance of Tea Producers companies in Kenya. This study therefore recommends that the management of tea Producer companies should embrace effective exchange of ideas, information and knowledge between IT and business and inter/intra organizational learning to enhance performance.

### REFERENCES

- Afandi, W. (2017). The impact of strategic IT-business alignment: Evidence from Saudi private small and midsize enterprises. *International Journal of Business and Social Science*, 8(10), 48-63.
- Akwaowo, R. (2021). Entrepreneurial Competency and Competitive Advantage of Hotels in Nigeria. *Available at SSRN 3912459*.
- Alreemy, Z., Chang, V., Walters, R., & Wills, G. (2016). Critical success factors (CSFs) for information technology governance (ITG). *International Journal of Information Management*, 36(6), 907-916.
- Alrowwad, A. a., & Abualoush, S. H. (2020). Innovation and intellectual capital as intermediary variables among transformational leadership, transactional leadership, and organizational performance. *Journal of Management Development*.
- Belfo, F. P., & Sousa, R. D. (2012). A critical review of Luftman s instrument for business-IT alignment.
- Benbya, H., Nan, N., Tanriverdi, H., & Yoo, Y. (2020). Complexity and Information Systems Rsearch in the Emerging Digital World. *Benbya, H., Nan, N., Tanriverdi, H., Yoo, Y*, 1-17.
- Bhattacharya, P. (2018). Aligning enterprise systems capabilities with business strategy: an extension of the strategic alignment model (SAM) using enterprise architecture. *Procedia computer science*, *138*, 655-662.
- Biberhofer, P., Lintner, C., Bernhardt, J., & Rieckmann, M. (2019). Facilitating work performance of sustainability-driven entrepreneurs through higher education: The relevance of competencies, values, worldviews and opportunities. *The International Journal of Entrepreneurship and Innovation*, 20(1), 21-38.
- Chao, C. A., & Chandra, A. (2012). Impact of owner's knowledge of information technology (IT) on strategic alignment and IT adoption in US small firms. *Journal of Small Business and Enterprise Development*.

- Chebrolu, S. B. (2010). Assessing the relationships among cloud adoption, strategic alignment and information technology effectiveness: Capella University.
- Coltman, T., Tallon, P., Sharma, R., & Queiroz, M. (2015). Strategic IT alignment: twenty-five years on. In: SAGE Publications Sage UK: London, England.
- Ilmudeen, A., Bao, Y., & Alharbi, I. M. (2019). How does business-IT strategic alignment dimension impact on organizational performance measures: conjecture and empirical analysis. *Journal of Enterprise Information Management*.
- Izzati, N., Adnan, M., & Jambari, D. (2016). Mutual Understanding Determinants for Effective Communication in Business and IT Strategic Alignment Planning. *vol*, *6*, 914-921.
- Jenkin, T. A., & Chan, Y. E. (2010). IS project alignment-a process perspective. *Journal of Information Technology*, 25(1), 35-55.
- Kapur, D., Lewis, J. P., & Webb, R. C. (2011). *The World Bank: its first half century* (Vol. 1): Brookings Institution Press.
- Kearns, G. S., & Lederer, A. L. (2003). A resource-based view of strategic IT alignment: how knowledge sharing creates competitive advantage. *Decision sciences*, *34*(1), 1-29.
- Kothari, C. R. (2004). Research methodology: Methods and techniques: New Age International.
- Kotsik, B., Tokareva, N., Boutin, F., & Chinien, C. (2009). ICT application in TVET. In *International handbook of education for the changing world of work* (pp. 1879-1894): Springer.
- Kumar, S., & Harms, R. (2004). Improving business processes for increased operational efficiency: a case study. *Journal of Manufacturing Technology Management*.
- Parto, A., Sofian, S., & Saat, M. M. (2016). The impact of enterprise resource planning on financial performance in a developing country. *International Review of Management and Business Research*, 5(1), 176.
- Patterson, M. (2020). A structured approach to strategic alignment between business and information technology objectives. *South African Journal of Business Management*, 51(1), 1-12.
- Pérez-López, S., & Alegre, J. (2012). Information technology competency, knowledge processes and firm performance. *Industrial Management & Data Systems*.
- Porter, M. E., & Kramer, M. R. (2019). Creating shared value. In *Managing sustainable business* (pp. 323-346): Springer.
- Reich, B. H., & Benbasat, I. (2000). Factors that influence the social dimension of alignment between business and information technology objectives. *MIS quarterly*, 81-113.
- Sabherwal, R., Sabherwal, S., Havakhor, T., & Steelman, Z. (2019). How does strategic alignment affect firm performance? The roles of information technology investment and environmental uncertainty. *MIS quarterly*, *43*(2), 453-474.
- Sabin, M., Alrumaih, H., & Impagliazzo, J. (2018). A competency-based approach toward curricular guidelines for information technology education. Paper presented at the 2018 IEEE Global Engineering Education Conference (EDUCON).
- Sanchez, X., & Bayona-Oré, S. (2020). *Strategic alignment between business and information technology in companies.* Paper presented at the 2020 15th Iberian Conference on Information Systems and Technologies (CISTI).

- Schallmo, D. R., & Brecht, L. (2016). IT Alignment Trap. In *Mind the Trap-11 typische* Unternehmensfallen (pp. 95-101): Springer.
- Spraakman, G., O'Grady, W., Askarany, D., & Akroyd, C. (2015). Employers' perceptions of information technology competency requirements for management accounting graduates. *Accounting Education*, 24(5), 403-422.
- Wetering, R., Mikalef, P., & Pateli, A. (2017). A strategic alignment model for IT flexibility and dynamic capabilities: toward an assessment tool.
- Wu, S. P.-J., Straub, D. W., & Liang, T.-P. (2015). How information technology governance mechanisms and strategic alignment influence organizational performance. *MIS quarterly*, 39(2), 497-518.
- Yayla, A. A., & Hu, Q. (2012). The impact of IT-business strategic alignment on firm performance in a developing country setting: exploring moderating roles of environmental uncertainty and strategic orientation. *European Journal of Information Systems*, 21(4), 373-387.
- Zahra, M., Hameed, W. U., Fiaz, M., & Basheer, M. F. (2019). Information technology capability a tool to expedite higher organizational performance. *UCP Management Review* (*UCPMR*), 3(1), 94-112.
- Zehry, K., Halder, N., & Theodosiou, L. (2011). E-Learning in medical education in the United Kingdom. *Procedia-Social and Behavioral Sciences*, *15*, 3163-3167.