

**PROCEEDINGS OF THE 6TH INTERNATIONAL
CONFERENCE OF BUSINESS AND MANAGEMENT IN
EMERGING MARKETS**

14-16TH SEPTEMBER 2021
INSTITUTE OF TOURISM-ZANZIBAR STATE
UNIVERSITY
ZANZIBAR

THEME

*Advancing Research, Technology and Practice
for Sustainable Business and management in
emerging markets.*

EDITOR: EMMANUEL CHAO

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ICBMEM 2021**

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Business and management in emerging markets*

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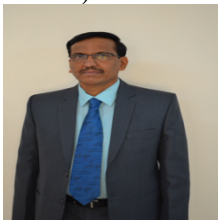
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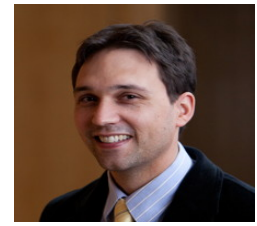
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**TIMETABLE FOR THE ICBMEM CONFERENCE 2021
INSTITUTE OF TOURISM- ZANZIBAR STATE UNIVERSITY
14-16TH SEPTEMBER**

14TH SEPTEMBER

11:00-1500- Arrival and Registration
1500-1630- Opening Ceremony
1630-1730- Launching of TMSA Chapter in Zanzibar

15th SEPTEMBER

0900-0945 Keynote Speech: Prof Honest Ngowi, Mzumbe University, Tanzania
0945-1030 Keynote Speech: Prof Rotem Shneor, Agder University, Norway
1030-1100 Coffee Break
1100-1230 Parallel Session (A1, B1, C1)
1230-1330- Lunch Break
1330-1500 Parallel Session (A2, B2, C2)
1500-1530 Coffee Break
1530-1600- Keynote Speech: Michelle Green, Fontys University of Applied Sciences, Netherlands
1600-1630- Keynote Speech Dr Felix Nandonde, Sokoine University of Agriculture, Tanzania
1630-1700- Keynote Rashid Mwinyi, Cube Zanzibar, Tanzania
1900-2130 Gala dinner

16TH SEPTEMBER

0900-0945- Keynote speech: Prof. Dr. Ritam Garg, Hochschule Ansbach, Germany
0945-1030- Keynote Speech: Prof Caroline Ditlev-Simonsen, BI-Norwegina Business School
1030-1100 Coffee Break
11-1230 Parallel sessions (A3, B3, C3)
1300 Program closure

17 SEPTEMBER

0900-1400- Visits and networking sessions for incubation programs

ICBMEM 2021 SESSIONS

DAY 1- 14TH-SEPT 2021

SESSION 1 (Venue A)

15-1730 Opening and Launch of TMSA chapter in Zanzibar

DAY 2 15TH SEPTEMBER 2021

SESSION 2 Keynote Speech (0900-1030)

Venue A-0900-0945 Prof Honest Ngowi, Mzumbe University, Tanzania

Venue A-0945-1030 Prof Rotem Shneor, Agder University, Norway

SESSION 3 Parallel Session (11-1230)

A1 (Venue A) Finance, Economics and corporate governance

Isaac Kazungu, Advertising strategies and export performance nexus: The Moderating role of network capabilities among handicrafts MSEs' in Tanzania

Avit Alex Chami, Emerging E-Commerce Shopping Practices During Covid-19 Era In Tanzania: A Critical Discourse Analysis

Pamela Liana, Jan-Erik Jaensson And Goodluck Mmari, Customer Loyalty And The Dimensions Of Service Quality: Quantitative Analysis Of Tanzanian Mobile Payment Services.

Honest Prosper Ngowi and Felister Ndumbaro, Alternative Financing: Crowdfunding for Business and Non-Business Motives in Tanzania

B1 (Venue B) Supply Chain, Marketing, Entrepreneurship

Mshumbusi Kato, Youth Entrepreneurship And Higher Education

Annita Lugimbana, Students' Learning Experience During Covid-19 Pandemic In Tanzania: Implications For New Education Management Models

Ms. Kantu Mbozi and Chama Mulanshi Goergina, Investigating The Methodologies Used In Entrepreneurship Education And Training In Tevet Colleges In Zambia

Jerum Kilumile, Johakim John, Nsubili Isaga, Analysis Of The Effectiveness Of The Labs And Hubs On Youth Innovation And Entrepreneurship In Tanzania

C1 (Venue C) Contemporary Management

Anasel Macfallen, Health Supply Chain Management

Habiba Nyenzi, Gladness Joseph, Fortunatus Fokas, Diana Mtei, David Kisusi, A Review On Adaptation To Fast Changing Market In Supply Chain Management: A Case Of Tanzanian Small And Medium Manufacturing Enterprises

Aziza Nassoro, Fayza A. Badru, Janeth Gideon, Nurat R. Kadebe, Musomi K. Nyinyimbe, Maige Mwakasege Mwasimba, Effect Of Supply Chain Risk Management Strategies On Performance Of Food Manufacturing Companies In Tanzania

Suzan Vuriva, Justine Stivin Tongola, Nehemiah Baranzila, Ebenezer Uronu, Winifrida N. Kimto, Maige Mwakasege Mwasimba, Analysis On The Impact Covid-19 Pandemic On Supply Chain Management And Its Direct And Indirect Impact On The Level Of Quality Customer Service In The Banking Industry: A Case Of Crdb Plc

SESSION 4 Parallel Session (1330-1500)

A2 (Venue A) Finance, Economics and corporate governance

Moza Omar, Ali Mwidini , Salma Yusuf, Taxation And Economic Development Of Zanzibar

Honest Prosper Ngowi and Joel Mvungi, Contributions of Blue Economy in Tanzania: The Case of Employment

Symphrosa Chacha, Imperatives of Public Diplomacy In Advancing Emerging Economies In Africa: A Case Of Selected Public Diplomacy Agents In Tanzania

B2 (Venue B) Supply Chain, Marketing, Entrepreneurship

Hanifa T. Massawe, Corporate Social Responsibility in Tanzania: A panacea to business growth or an impediment?

Eileen Urassa, Andrew Mushi, Reflection On Possibility And Practicability Of Having Breastfeeding Policy At Work Place In Tanzania

Asad Mkwawa, Cadella Pallangyo, Deogratias A. Otaru, Romick Augustino, Rosemary Kategile , Maige Mwakasege Mwasimba, The Dynamics of IoT in the Modern Supply Chain Management and the Limitless Possibilities It Has Unveiled

William M. Msoffe, Jacqueline Mapesa, Masoud Jonas Mwakoba, Khalid H. Mbena, Gladylne Mtokambali, Maige Mwakasege Mwasimba, Quality Customer Service Practices In Supply Chain Management: Evidence From Service Sector In Tanzania

C2 (Venue C) Contemporary Management

Tito S. Matiku, Mhando Felix, Grace Mwaipopo, Khenan Chakudika, Zeynab Hirsi Ibrahim, Maige Mwakasege Mwasimba, Perception Of Procurement Professionals On The

Adoption Of Blockchain Technologies And Its Impact On Supply Chain Management In Tanzania

Elizabeth Salvatory Mtunga, Rosemary Mathew, Lusajo George, Hamisi Mwakalinga, Dorah Konga, Maige Mwakasege Mwasimba, Single Source Amplified Supply Chain Risks During Covid19 Pandemic On The World Economy: A Literature Based Study

Gerald Wakisa Ndowera & Andrew Mushi, Analysis on The Barriers For Implementation And Sustainability Of Ppp Projects In Malawi Transportation Sector: A Case Of Malawi Cargo Centres Limited (Mcc)

SESSION 5 Keynote Speech (1530-1700)

Venue A: 1530-1615 Michelle Green

Venue A: 1615-1700 Dr Felix Nandonde

16TH SEPT 2021-DAY 3

SESSION 6 Keynote Speech (0900-1030)

Venue A: 0900-0945- Prof Ritam Garg

Venue A:0945-1030- Prof Caroline Ditlev Simonsen

SESSION 7 Parallel Session (11-1230)

A3 (Venue A)

Leonarda Mwangike, Supply Chain Management and Developing Economies

Gladness Livigha, Ellygritha Iriya, Angel Gabriel, Mboni Rashid, Mussa Mbugi, Maige Mwakasege Mwasimba, The Impact Of Quality Customer Service In Supply Chain Management; The Literature Review

Benson Msangi, Isabella Mwambalaswa, Houfanne Ainan, Fatuma Mbule, Nasibu Ally, Maige Mwakasege Mwasimba, To Determine The Effect Of Lack Of Actionable And Insightful Data On Supply Chains With Reference To The Global Covid-19 Pandemic To Impact Global Economic Growth

B3 (Venue B) Supply Chain, Marketing and Entrepreneurship

Moses Marko, The Determinants Of Prosocial Crowdfunding Adoption In Microfinance Institutions In Tanzania

Wilfred Felix Kavishe, The Influence Of Microfinance Institutions On Crowdfunding Approval: The Analysis Of Loan Officer's Loan Approval

Daudi Pascal Ndaki, Nsubili Isaga, The Role of Financial Literacy In Crowdfunding Awareness: A Survey Of Entrepreneurs In Tanzania

C3 (Venue C) Contemporary Management

Brian D. Mshana, Andrew Mushi, Leadership And Management Of Non-Governmental Organization: Factors Making Women-Led Organizations Work'

Omari K. Mbura & Simith J. Sanga, Promotion Strategies And Tourists' Hotels Performance In Tanzania. Insight From Dar Es Salaam City Based Tourists' Hotels.

Daudi Pascal and Roy Mersland, Strategic Drift: The Impact of Managerial Characteristics And Microfinance Organizational Growth

Emmanuel Chao, Systemic Entrepreneurship In Higher Education Institutions

SESSION 3: PARALLEL SESSION
11-1230/WEDNESDAY 15TH SEPT 2021

SESSION 3

A1 Finance, Economics and Corporate governance **Venue A**

B1 Supply Chain, Marketing and Entrepreneurship **Venue B**

C1 Contemporary Management **Venue C**

SESSION 3 [A1]
1100-1230/Wednesday, September 15th 2021, Meeting Room A
Finance, Economics and Corporate governance
Session Chair: Avit Chami, Centre for Foreign Relations

Isaac Kazungu

Advertising strategies and export performance nexus: The Moderating role of network capabilities among handicrafts MSEs' in Tanzania

Abstract

The influence of advertising strategies on enterprise export performance has been the subject of increasingly interest among entrepreneurs', policy makers and researchers. We assess the effect of network capabilities as a moderator on the relationship between advertising strategies and export performance of Tanzanian handicrafts MSEs. The study adopted descriptive and correlational research designs, and data were collected from sampled 171 handicrafts exporting MSEs in Dar es Salaam, Tanzania. Ordinary Least Squares (OLS) regression and Moderated Multiple Regression (MMR) models were compared to determine the moderating effect. Network capabilities show a significant interaction effect between advertising strategies and export performance of handicraft. It is concluded that network capabilities moderates the relationship between advertising strategies and export performance of handicrafts MSEs. The need for institutional context, policy framework and incentives on advertising and network supports tailored to specific needs of handicrafts MSEs' are among the key recommendations of this study.

Keywords: Moderator, network capabilities, advertising, export performance, handicrafts, MSEs and Tanzania

Avit Alex Chami

Emerging E-Commerce Shopping Practices During Covid-19 Era In Tanzania: A Critical Discourse Analysis

Abstract

The Covid-19 epidemic has become the world's biggest event in 2020, leaving myriad reactions in governmental, regional, institutional, political, health, personal and business discourse domains. This study engaged a Critical-Discourse-Analysis (CDA) to explore the skimpy implicit projected discourse, thereby exposing the imbalance, discrimination, inadequacy and prejudice in the adoption of e-commerce shopping practices discourse. During the Covid-19 outbreak, global and regional news and projections posed a special public discourse including the higher projection of adoption of e-commerce shopping practices among various countries. This paper adopts a CDA of Van Dijk's tripartite framework on prevailing news-text-structure on the adoption of e-commerce shopping practices and Fairclough's insights on the interactivity between the e-commerce adoption estimated projections and actual practice during and after Covid-19 era in Tanzania. The

data for this study was sampled from both online and offline literatures on e-commerce shopping perspective and Covid-19 related responses in Tanzania. After the analysis it was found that; due to resulted unprecedented times and lifestyles from the Covid-19 protocols, e-commerce shopping was projected to exponential growths. The envisaged e-commerce platforms in place with large numbers of users who may quickly expand into e-payments, leaves online urban mobility platforms to better positioned to expand into online delivery. Following the study findings from CDA of Van Dijk's tripartite framework, the study concludes existing inadequate interactivity in creating robust e-commerce platforms hence resulting to the mismatch of projected outcomes and the state of art in e-commerce shopping spectrum during and after Covid-19 epidemic era in Tanzania.

Keywords: E-Commerce shopping, Covid-19, and Critical Discourse Analysis.

Pamela Liana, Jan-Erik Jaensson And Goodluck Mmari

Customer Loyalty And The Dimensions Of Service Quality: Quantitative Analysis Of Tanzanian Mobile Payment Services.

Abstract

Customer loyalty in mobile payment services is one of the growing concerns in the service marketing literature today. Digitalization, change of market dynamics and complexities that arose from consumer behaviour propels the need for understanding customer loyalty as a part of consumer behaviour. This study purposefully examines the influence of the dimensions of service quality; technical quality, functional quality and reputational quality. The hypothetical constructs extended the causal relationships to the key dimensions of customer loyalty, attitudinal loyalty and behavioural loyalty. The study employed a sample of 349 respondents employing sequential explanatory research design for mixed-method approach and analysed data using Structural Equation Modelling with smart PLS. Findings and results in this study suggested that customer loyalty dimensions should be combined for the robustness of the findings. The results revealed a significant influence on the functional quality and reputational quality to attitudinal loyalty. Also the Behavioural loyalty suggested a positive influence from technical quality and reputational quality.

Keywords: customer loyalty, service quality and mobile payment

Introduction

Customer loyalty in mobile payment services has been a very important topic in the service industry recently. The fact that understanding customer loyalty is beneficial to company revenues, the research was left with continuing debate due to ongoing technological change, customer complexities and lack of evidence regarding static-dynamic debates of customer loyalty (Grewal *et al.* 2020; Matonya, Jaensson and Ngaruko, 2019; Tartaglione *et al.* 2019). Besides, these days service marketing is finding difficult to comprehend on the critical scenarios taking place in mobile services regarding customer behaviours from traditional point of view.

Moreover, these services have rapidly expanded worldwide and the sub Saharan Africa remains one among the largest mobile payment hub in Africa (Paelo, 2020). In East, Africa history was covered by M-Pesa Kenya 2008, but recent Tanzania has become one among countries with a large number of m-payment service providers in sub-Saharan Africa. For a

country like Tanzania is benefiting in e-commerce and cross borders payments, secondly as the main object to extend digital economy (World Bank, 2021). Info graphs further revealed that mobile payment has the highest penetrations than a bank account in enhancing financial inclusion. One of the challenges includes poorly applied regulations, high costs for small transactions, network coverage and connectivity (World Bank, 2021; UNCTAD, 2020). Yet the market share of the giant providers is currently reduced and there are several new entrants for example Halotel to date has increased 10% market share while Vodacom has reduced 11% from 2015-2021 (Worldbank,2021). Indeed, the mobile industry calls for a concern regarding m-payment services.

In the context of academic concerns, there is a need to examine the link between service quality evaluation and customer loyalty in such dropouts of the giant providers. Indeed, in search circumstances little is known how customer loyalty is formed or developed on how each service provider manage their customers and attains customer loyalty. Besides, the key importance of customer loyalty is enhancing sales increase, revenue, profitability and is a competitive advantage to companies.

Previous scholars on service marketing were researching customer loyalty from service provider's perspectives rather than customer perspectives conceptualizing on customer loyalty programs, service quality and firm performance (Närvänen et al., 2020; Herhausen et al., 2019; Mbama, 2018). These empirical findings imply a profound gap in the body of knowledge on customer loyalty perspective specifically in the mobile payment sector. Indeed this is supported by fast-changing digital technology, customer to customers' connections, through the use of mobile devices, inquiring about service being more quick and convenient.

To understand customer loyalty better, there should be consideration on the applicability of the key dimensions of attitudinal and behavioural loyalty to unleash these concerns (Melián-Alzola and Martín-Santana, 2020). Nevertheless, other scholars had contradicting views with customer loyalty in the industry contending a focus on disloyalty issues (Bhatnagar *et al.* 2019; Mbawuni and Nimako, 2016). It is noticed that customers also remain loyal with the same provider even though is dissatisfied due to unfair practices (Bhatnagar *et al.* 2019). While customers are disloyal, it is not clear how attitudes and behaviours are influenced by the service rendered. This has highlighted as a big change in service marketing theory and history as the service has changed consumer behaviour due to the use of financial technology in a concurrent manner. The sparked debate might be triggered by lack of digital orientation, difficulties in capturing usage behaviours on panel data because of many segments and touchpoints (Grewal *et al.* 2020, Nandonde, 2019; Herhausen *et al.* 2019). To complicate the matter there is little understanding of customer assessment of service quality in m-payment services.

In literatures, the dimensions of service quality such as technical quality, suggested to have effects on customer loyalty while others contend that functional quality and reputational quality are not (Shankar and Jebarajakirthy, 2019; Viraiyan et al. 2019; Cheng, 2011). It may be unfair to regard service quality evaluation in terms of banking services while m-payment services are unique in their way. Besides, mixed information regarding customer evaluation of m-payment service quality and customer loyalty relationship specifically the loyalty development is not well addressed.

This study will use the combination of attitudinal and behavioural loyalty to test the relationship. Specifically, the paper aims at;

- (i) Evaluating the influence of dimensions of service quality (technical quality, functional quality and reputational quality) on attitudinal customer loyalty in mobile payment services in Dar es Salaam city.

- (ii) Evaluating the influence of dimensions of service quality (technical quality, functional quality and reputational quality) on behavioural customer loyalty in mobile payment services in Dar es Salaam city.

The paper is assembled as follows: firstly the introduction, brief explanations of the grounded work of previous literature on customer loyalty, literature overview and hypothesis. This is followed by the methodology, analysis, results and discussion, conclusion and recommendation as well as an implication to theory and practice.

Theoretic Development

Conceptualizing TPB theory, Customer Loyalty framework and Service Quality Model

Companies have been considering customer loyalty and service quality from their perspective based on traditional theoretical underpinnings whereas customer repurchase was regarded going back to the same shop and recommendation to others was based customers close people. In digital era customer is exposed to wider lenses of communication with both whom he knows and whom he do not know. To understand attitude and behavioural loyalty this study was guided by the Theory of planned behaviour (TPB) by Ajzen (1991), Customer Loyalty Framework by Dick and Basu (1994) and Service quality model by Gronroos (1984). Customer Loyalty is enhancing the understanding of customer loyalty formation in mobile payment services and the multidimensional approach from (Mandhachitara, 2011; Melián-Alzola and Martín-Santana, 2019).

The multi-dimensional approach involved; attitudinal loyalty and behavioural loyalty. On the other hand, service quality evaluation provides key components for the analysis specifically from a mobile payment perspective, bringing about the perceived transformations in service marketing literature in the digital era. Thus dimensions of service quality incorporated operating distinctions in service operations and setting, using the current perspective. In addition they are pivotal points in mobile payment services include mobile application (technical quality) quality, m-banking customer service quality related to functional quality and reputation quality to capture the service provider's image (Jun and Palacio, 2016; Kang and James, 2004).

Customer loyalty in the telecommunication industry

Digitalization era enhances expansion of financial technology which has been offered by the telecommunication industry. This includes linking manufacturers to end users\customers in both businesses to business and business to customer's undertakings. One of these services is mobile payment service which entails providing services related to money through mobile devices. Current literature has shown concerns regarding customer loyalty in mobile payment services because so far has been perceived as a dual-natured phenomenon, operating to customers whether loyal or disloyal. In (Mbawuni and Nimako, 2016) observed that these customers remain loyal even if they are dissatisfied with the service provider. Subsequently, while well-managed customer loyalty leads to high revenues and profitability, disloyalty is caused by 'unfair practice, unfulfilled service and poor interaction with customers' (Bhatnagar *et al.* 2019). To address the matter, (Iv *et al.* 2015) pinpointed that researchers need to consider attitudinal loyalty and behavioural loyalty as key dimensions of customer loyalty.

Customer loyalty dimensions

Customer loyalty conceptualization has been covered in a wide perspective among scholars and academics. There have been three key perspectives debated which are customer loyalty, service loyalty. Brand loyalty concerns the brand notions (Matonya *et al.* 2019), service loyalty (Caruana, 2002) covering service provider's perspectives and customer loyalty conceptualize on customer's views and perspectives of the service. Loyalty to the recent has no universal definition but literature considers two key dimensions which are attitudinal loyalty and behavioural loyalty (Melián-Alzola and Martín-Santana, 2020; Tartaglione *et al.*, 2019; Ngobo, 2016; Cheng, 2011)

This paper adopted a definition of customer loyalty from (Iv *et al.* 2015) stating that customer loyalty as “a composition of attitudes arranged in a series of purchasing behaviours among competing companies logically”. (p. 14). This study will operationalise the definition by (Iv (Iv *et al.* 2015) and defines customer loyalty as a compilation of attitudes and behaviours toward mobile payment services which repeats among customers and lead to competition among service providers.

Attitudinal loyalty

Attitudinal loyalty is simply referring to customer essence of saying positive word of mouth to others (Mandhachitara, 2011). Conceptualization of attitudinal loyalty Boulding *et al.* (1993) and Zeithaml *et al.* (1996) revealed that a favourable attitude responds to a customer recommends the service to others. On top of that Dick and Basu, (1994) contended that a favourable attitude includes saying positive things about the service and emphasized the aspect of the formation of loyalty in terms of conditions such as true loyalty, latent loyalty, spurious loyalty and no loyalty condition. This dimension is historically found as a multifaceted and complex phenomenon which provided mixed views among empirical underpinning of researchers.

For example (Matonya *et al.* 2019) pinpointed relational experience enhances loyalty, differ from B-2-B and B-2-C, service quality can influence attitudinal loyalty when moderated with customer satisfaction and trust (Srivastava and Srivastava, 2019). Concerning channels in the context of online and offline financial services, (Iv *et al.*, 2015; El-Manstrly and Harrison, 2013) argued that customer satisfaction, commitment and trust impact attitudinal loyalty.

This study observed that scholars have based on systematic review than empirical review on customer loyalty conceptualization (Moretta Tartaglione *et al.*, 2019; Agrawal *et al.*, 2013; El-Manstrly and Harrison, 2013; Iv *et al.*, 2015) proposing attitudinal loyalty to measure customer loyalty and (Kim, 2020; Ngobo, 2016) whereby pinpointed that true loyalty conditions to work best with relative attitude.

Behavioural loyalty

The theoretical underpinning suggested that intention may result in behaviour and this behaviour can be favourable or unfavourable Ajzen, (1991) and Zeithaml *et al.* (1996) revealed that a favourable behavioural response refers to a customer repurchase. Although behavioural loyalty is historically termed as the unidimensional of customer loyalty over time scholars have suggested it as not a standalone but rather work in line with attitudinal loyalty (Melián-Alzola and Martín-Santana, 2020; El-Manstrly and Harrison, 2013; Tsoukatos and Koulentaki, 2011; Bandyopadhyay and Martell, 2007). In the situation where the industry is closely regulated, behavioural loyalty is linked with a spurious condition which implies customers have no alternative to the service. In that case, it is imperative to understand the level of service quality delivered (Zeithaml, 1996) what

encourage customers and how to retain such customers. For example, in mobile payment services, there are regulators such as the Bank of Tanzania and the Tanzania Communication Regulatory Authority Hence this study considers the customer-centric view of customer loyalty and their evaluations on the dimensions of service quality.

Service quality dimensions and Customer Loyalty

Scholarly reviews on service quality and customer loyalty relationship for the past three decades has indicated dissimilarity in nature, type and service settings. Scholars that foundations of the previous theory could not capture the current situation due to the fast-growing development of digital technology and change in market dynamics (Birch-jensen, 2020; Dey et al. 2020; Medberg and Gronroos, 2020; Karimi *et al.* 2018). For example in mobile payment services customer can use both device-based and vendor based mobile payment service which is integrated to several service providers. However, a sustainable service quality evaluation is challenged with the difficult conception of customer loyalty whether true loyalty or spurious one (Hadi *et al.* 2019). This is one of the critics of Dick and Basu (1994) framework where the contention relied on customer loyalty formation based on four conditions. This study extended this theoretical underpinning on the angle of the drivers of loyalty by involving customer's perspective in unleashing specifically on these key dimensions of service quality as follows;

Technical quality

Technical refers to outcome of the service according to Gronroos (1984) but further research has modified the dimension based on service setting for instance transformative quality in education services (Teeroovengadam *et al.*, 2019) and comparative quality in cell phone services (Hadi *et al.* 2019; Kang and James, 2004). Additionally, Dey et al.(2000) contend the speed and network as technical quality in mobile telecom market but was linking with customer satisfaction and synthesized the electrical engineering perspective. These differences in services suggest difference in evaluation of the outcome of the service. This defines the outcome of the service process whereby when a customer evaluate technical quality refers to technical solutions provided and smoothness to service completion. For example a cell phone service outcome cannot be compared with m-payment service outcome. Similarly, technical quality studies on the affect customer loyalty but in mobile phone services lack empirical link whether attitudinal or behavioural loyalty (Viraiyan *et al.* 2019) may or may not be significant to mobile network services (Patharia and Pandey, 2021).

Functional Quality

Functional quality refers process of the service, how the service is carried out. According to Kang and James, (2004) suggested that functional quality well explained with the SERVQUAL items but based on modification of the respective service type. According to (Jun and Palacios, 2016, Parasuraman et al, 1988) mobile banking service quality is concerned with mobile application quality and mobile banking service quality measures from a qualitative study which is, continuous improvement, understanding customer, reliability, responsiveness, credibility, communication and courtesy. Indeed the operationalization of mobile banking service and mobile payment service differs; the integration of customer bank account, mobile phone service against integration of telecom mobile payment service and related service. The infancy and lack of profound literature on mobile payment services compel researchers to adapt the banking sector measurement scales.

Reputational quality

In this study reputational quality refers to company reputation as influence customer loyalty. This includes; contribution to society, the feeling company is superior, is a successful company, have a good reputation. In mobile payment service and specifically, when dealing with finances customers are more focused on these criteria. Scholarly empirical reviews produce contradicting results regarding customer evaluations on reputation quality, suggesting no effect on loyalty (El-Manstryl, 2014; Cheng, 2011) suggesting have a significant effect on customer loyalty (Viraiyan et al. 2019).

Hypotheses

The hypotheses built in this study are as follows;

H_{o1} There is a positive relationship between the technical quality and attitudinal loyalty

H_{o2} There is a positive relationship between the functional quality and attitudinal loyalty

H_{o3} There is a positive relationship between the reputational quality and attitudinal loyalty

H_{o4} There is a positive relationship between the technical quality and behavioural loyalty

H_{o5} There is a positive relationship between the functional quality and behavioural loyalty

H_{o6} There is a positive relationship between the reputational quality and behavioural loyalty

Methodology

Measurements and Variables

Customer Loyalty: The current study explains customer loyalty as the dependent variable which was measured with 8-items by a 7-point Likert scale ranging from “*I strongly agree....*” To “*I strongly disagree....*” (Mandhachitara, 2011) This scale was measuring mobile payment customers' loyalty with a specific focus on attitudinal and behavioural loyalty in mobile payment services. These dimensions were concerning the repeat purchase and recommendations of m-payment customers as resulted by the influence exerted by evaluation of service quality.

Service quality was the independent variable in this study and was measured from Gronroos's model of service quality adapted by Kang and James (2004) and Jun and Palacio (2016). The three key dimensions were modified to suit the mobile payment services with technical quality having 6-items adapted from (Dey et al. 2020; Zarei, 2019). Functional quality having 15-items from Jun and Palacio (2016) also originated from SERVQUAL scales and reputational quality with 10-items adapted from Kang and James (2004). The dimensions were designed from an m-banking qualitative study and required systematic results (Jun and Palacios, 2016), the study added two more items from (Dey et al. 2020) also because of the nature of mobile payment services. Measurements employed a 7-point Likert scale ranging from "strongly agree to strongly disagree"

Data collection and Respondents Profile

A field survey was conducted with a sample size of 400 respondents situated at Dar Es Salaam city between January to March 2021. Questionnaires were distributed to respondents from three districts; Temeke, Kinondoni and Ilala. The response rate was 94.75% which is equivalent to 379 implies an acceptable number for SEM. According to Tabachnick and Fidell (2013) in factor analysis, 300 cases and above are adequate while Byrne (2010) suggested a minimum sample size of 200. On the other hand for PLS-SEM there is a general rule of 5 to 10 times indicators (Hair et al. 2011; Field, 2009). This paper constituted 38 items that met the required criteria.

Table 1: Mobile payment customer profile and frequency information

No.	Measure	Details	Frequency %	Percentage %
1	Age	less than25	88	23.2
		25-40	207	54.6
		41-55	72	19.0
		56=60	10	2.6
		60 and above	2	.5
2	Gender	Male	199	52.5
		Female	179	47.2
3	Occupation	fulltime employment	79	20.8
		Self-employment	267	70.4
		Housewife	5	1.3
		Househusband	7	1.8
		Retired	4	1.1
		none of the above	15	4.0
4	Marital status	Married	164	43.3
		Single	191	50.4
		Divorced	17	4.5
5	Frequency m-payment	Daily	174	45.9
		Weekly	55	14.5
		several time weekly	84	22.2
		Monthly	46	12.1
		several time monthly	11	2.9
		after every month	7	1.8
		99.00	2	.5
	Total Respondent	379	100	

Source: Primary data, 2021

Table 1 above, shows the following; that the highest number of m-payment service providers in this study was Tigopesa 66.8%, M-pesa 46.2%, Airtel money 43.5% followed by Halopesa 22%, TTCL 1%, smile 0% and Ezypesa 0%. This study selected three service providers which are Tigopesa, Mpesa and Airtel money and the nature of these respondents is using more than one service provers whereby one may be using Mpesa but at the same time use airtelmoney. The distribution number of gender was (52.5%) males and (47.2%) females who provide their opinion to the study. This is followed by the occupation status of the respondents whereby (70.4%) are self-employed and (20.8%) are employed which reveal the possibility of the considerable need to use mobile payment services. About (50.4%) are single while (43.3%) are married which reveal that no limitation to the use of m-payment. Many customers of about (45.9%) use the service daily, (22.2%) use mobile payment services several times a week, (14.5%) use weekly, (14.9%) use once per month and (2.9%) several times in a month. The highest number of respondents had an age between 25-40 years.

Analysis

In this paper data analysis was conducted by employing smart PLS for SEM which is useful in marketing-related studies but also has a statistical power in carrying out multifaceted constructs and non-normal data (Hair et al 2019). One of the key decision rules for using PLS-SEM is handling complex models, data distribution assumptions, which is a concern such as free distribution data/non-normal data for social science research (Hair *et al.*, 2019). In SEM the analyses the model is presented in form of path diagram to explain path coefficients and the model diagrammatically. The study opted formative measurement approach of analyzing PLS-SEM using smart-PLS v.3.3.3. This is a useful tool for model estimation analysis. The analysis involved Exploratory Factor Analysis (EFA) which will provide reliability and validity value together with factor loadings. The model fit criterion according to (Henseler *et al.* 2016) for the PLS estimation method include; *overall model fit* the study used Standardised Root Mean Square Residue (SRMR) ≤ 0.08 (estimated model); $d_{ULS} < 95\%$ bootstrap quantile (H195 of SRMR); $d_G < 95\%$ bootstrap quantile (H195 of d_G *Measurement model*; confirmatory composite and/or factor analysis (saturated model); used a cut-off point for Standardised Root Mean Square Residue (SRMR) ≤ 0.08 (saturated model); $d_{ULS} < 95\%$ bootstrap quantile (H195 of SRMR), $d_G < 95\%$ bootstrap quantile (H195 of d_G). The internal consistency reliability used a cut-off point Cronbach alpha > 0.7 , convergent reliability AVE > 0.5 , discriminant validity Fornel-Larcker criterion, loadings should be beyond cross-loading. For *the structural model*, endogenous variables should have R^2 which observe model explanatory power, 0.5 is acceptable, (Shmueli et al., 2019; Joseph *et al.*, 2013) has to be significant (p-value).

Results

Modelling results

4.2.1 Formative measurement model

The findings from EFA indicated the **reliability test** in this study; the analysis revealed the Composite Reliability (CR) above the threshold of 0.7, which is respectable in social sciences. According to Hair et al. (2019), composite reliability is more acceptable in PLS-SEM analysis than Cronbach alpha. The results to each construct CR are; Technical Quality (TQ) 0.83, Functional Quality (FQ) is 0.9, Reputation Quality (RQ) 0.9, attitudinal customer loyalty 0.8 and Behavioural customer loyalty 0.8.

The findings for validity test in this study initially includes constructing validity that entails checking with three marketing experts on the constructs developed in the questionnaires link with the hypotheses. Secondly, was followed by a face validity whereby a pilot test of 25 questionnaires was distributed to sample in Morogoro and the suggestion and comments were added in the respective constructs. Moreover, convergent validity was then conducted during analysis to check if the measurement model was statistically significant which revealed significance above 50%. In terms of convergent validity and discriminants validity, we assess the average variance extracted (AVE) and the square root of AVE with the respective inter constructs correlations coefficients between the latent variables. Table3, shows that all average variance extracted (AVE) were greater than 0.5 which is the value recommended by Fornell and Larcker, 1981. That means the convergent validity was adequate since the values of AVE ranging from 0.514 to 0.6058.

This is also supported by (Hair *et al.* 2011) which means the scales items in the constructs have proper proportions, thus the study reaches above the acceptable value of 0.5. On the other hand multicollinearity test was demonstrated by the coefficients in table 2 that there

is adequate discriminants validity and have no collinearity between the pair of latent variables, since both correlations coefficients have weak relationships to each other.

Table 2. Discriminant validity between constructs

Latent Variable	TQ	FQ	RQ	CL
TQ	0.7345			
FQ	.287**	0.7175		
RQ	.429**	.327**	0.7268	
CL	.365**	.229**	.475**	0.7783

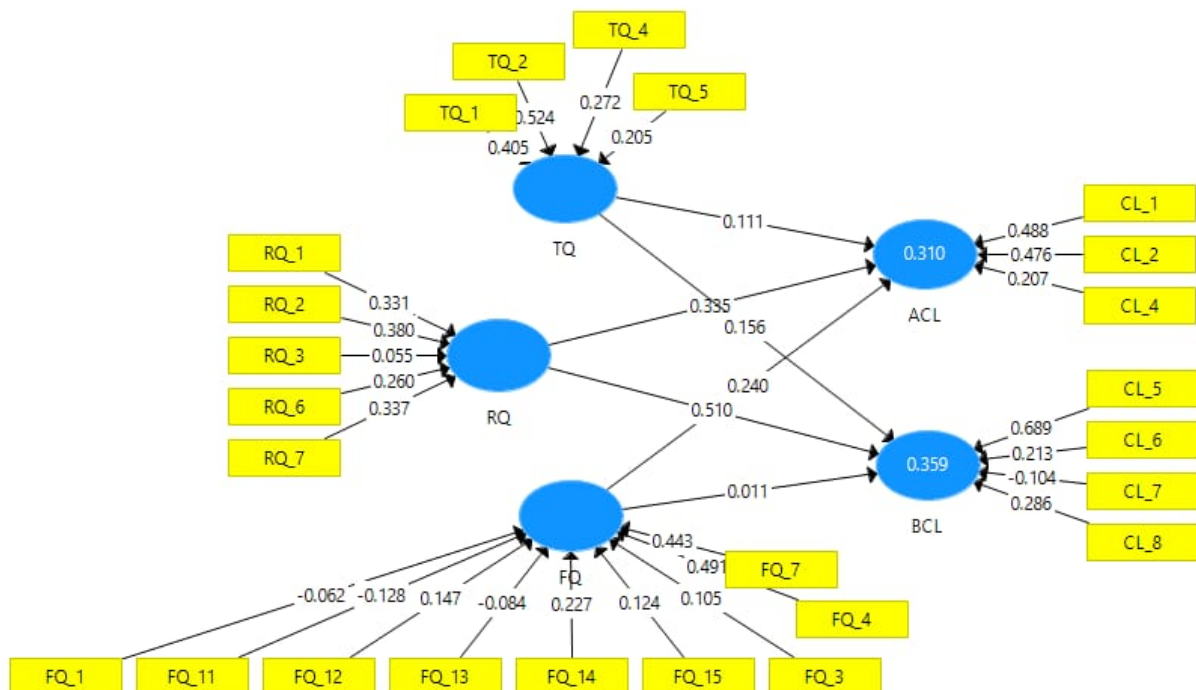
Note: ** All factor correlations are significant at 0.01 level, square root of AVE represented in diagonals.

Measurement Model fit; In figure 1 below, there are two measurement models the first is pointing the dimensions of service quality technical quality (TQ), functional quality (FQ) and reputational quality (RQ) to ACL and the second model also point TQ, FQ and RQ to BCL. SRMR= 0.052(saturated model); $d_{ULS} < 95\%$ bootstrap quantile (H195 of SRMR)=0.882, $d_{G} < 95\%$ bootstrap quantile (H195 of d_G)=0.24.

Structural model and the Path analysis

The figure 1 below explains the path diagram which shows path analysis for the measurement models and structural model. The structural model consists of hypothesized constructs indicated in hypothesis one to six. Path analysis was followed by bootstrapping technique, which adopted the minimum sample of 5000 (Hair *et al.* 2011). The measurement model contains the outer loadings of the observed items to the latent variables and the structural model contains inner loadings of the latent variables.

Figure 1. Path analysis and results



Technical Quality=(TQ), Functional Quality=(FQ), and Reputational Quality=(RQ), Attitudinal Customer Loyalty=(ACL) and Behavioural Customer Loyalty=(BCL).l

The study indicates that in the structural model, endogenous variables revealed that Attitudinal loyalty (ACL) has $R^2=0.310$ and Behavioural loyalty (BCL) has $R^2=0.359$ in figure 1 above. This implies that the structural model has explanatory power and the value of R^2 which is acceptable (Shmueli et al., 2019; Joseph et al., 2013). This further implies the goodness of structural model fit result, the overall model fit or goodness of fit in this study is indicated that; SRMR =0.054; $d_{ULS}= 0.964$; $d_G=0.25$;

Table 3: Summarised results of the direct effect

<i>Hypotheses</i>	<i>Original Sample (O)</i>	<i>Standard Deviation (STDEV)</i>	<i>T Statistics (O/STDEV)</i>	<i>P Values</i>	<i>Results</i>
FQ -> ACL	0.240	0.076	3.151	0.002	supported
FQ -> BCL	0.011	0.067	0.170	0.865	Not supported
RQ_ -> ACL	0.335	0.066	5.063	0.000	supported
RQ_ -> BCL	0.510	0.060	8.493	0.000	supported
TQ -> ACL	0.111	0.058	1.917	0.056	Not supported
TQ -> BCL	0.156	0.053	2.951	0.003	supported

Source: Smart-PLS Primary Data

Table 3 above explains that the FQ, RQ to ACL accepts the hypotheses likewise, TQ, RQ to BCL accepts the hypothesis at a p-value less than 0.05. FQ to BCL and TQ to ACL were insignificant. Robustness in the results was ensured with the bootstrapping method in the structural model to reveal the nonlinear outcome of the model by testing significances (Hair, 2019).

Discussion

In this study, the objective was to examine the influence of service quality on customer loyalty in m-payment services. This is crucial because of the nature of the mobile payment service which involves the use of personalised mobile devices and the presence of different functions during application and service provision. Indeed, customer loyalty as the central focus in this study is depicted in the hypotheses and explained in terms of attitudinal and behavioural loyalty in m-payment services whereby; The results indicated that functional quality and reputational quality influence attitudinal loyalty. This means customers are saying positive things to others and consider a service as the first choice based on their evaluation of functional and reputational quality. The results strengthen the view that communication with the customer, well-addressed complaints, continuous improvement of the service and ability to understand customers may render attitudinal loyalty (Medberg and Grönroos, 2020; Viraiyan et al. 2019). The result further indicated that, reputational quality has the most significant influence with ($b=0.375, p<0.05$) and functional quality following with ($b=0.056, p<0.05$). The implication is that perception and evaluation of the provider are strongly related to the reputation perceived in the mind of the customer which is significant to financial related services. The results supported the hypothesis (H_2 & H_3) however the results from hypothesis (H_1) revealed that there is no relationship between technical quality and attitudinal loyalty. This implies that even if there is technical

interruption that occurs during mobile payment service customer can still consider particular m-payment service as their first choice. These results are consistent with (Melián-Alzola and Martín-Santana, 2020; Cheng, 2011).

The results obtained from the behavioural loyalty dimension came up with interesting results which were crucial in examining loyalty since expressed by repurchasing criteria but the functional quality was insignificant to this variable. The specifics of these results indicated that technical quality has a path coefficient with ($b=0.141, p<0.05$). This implies that proper advocacy on the provision of technical solutions, complete service/successful service and without interruption may lead to repurchasing and hence behavioural loyalty. This is also supported by empirical studies conducted (Ka and Lai, 2019; Zarei et al., 2019; Srivastava and Srivastava, 2019; Zarei et al., 2019) but (Viraiyan et al. 2019) reported opposite findings of functional quality-loyalty relationship.

In the sub Saharan African environment, mobile payment customers can switch to other m-payment providers since mobile phones are duo/can access more than one provider at a time. Indeed such circumstances imply that neither inquiring for the technical solution and successful completion of m-payment service nor customer to willingly advocate the service to others is vital. The reason behind this could be that the customer is compelled to use the service although is not happy but have no choice, this was also identified as disloyalty (Mbawuni and Nimako, 2016) with the service impeccable/imperfection. On the other hand, the results on reputation quality receive contradictory perspectives on behavioural loyalty having no relationship (Shankar and Jebarajakirthy, 2019; Cheng, 2011).

Managerial Implication

Customer loyalty has become an interesting factor in service marketing literature and to the growing mobile services in Tanzania. It is obvious that having a large customer base is one of the reasons to enhance sales and revenues of a company, contrary in situations where there is high competition and many innovations in digital era there is a need to work on customer loyalty. This study is supported by well-established literature built on examining the influence of the dimensions of service quality on customer loyalty. The study provides empirical support in the m-payment context; improve understanding of service quality evaluation and their influence on customer loyalty in mobile payment services. Additionally, the study challenges the debate regarding service quality being conceptualized by SERVQUAL scales but rather extends the empirical results including the service quality dimensions; technical and reputational quality.

Managerial implication for managers for mobile payment service providers/operators the study provided an understanding the position of customer loyalty to their customers. The results inform the mobile service operators to consider behavioural and attitudinal loyalty of their customers. The modelling results revealed that an established importance of these specifics through service quality evaluation enhance customer loyalty. This obviously means that, the mobile provider should try to achieve a completed mobile payment transactions without interruption and with prompt technical solution to enhance service repurchase hence achieve behavioural loyalty. This includes maintaining a positive reputation to the society as a reputation quality which collectively achieve positive recommendation and repurchase.

In addition mobile operators should work on the technical part of the service to enhance attitudinal loyalty toward the service, keep on inform customer, continuous improvement of the service and promptness. Indeed, mobile operator should emphasize of providing a better view of technical quality and functional quality in their services provision to

enhance positive word of mouth (saying positive things) and manage customer shared information.

Secondly, the study provides an important contribution to the regulatory bodies whereby the results suggest that these bodies should provide better opportunity for mobile phone providers to deal with technical solutions. This implies that, despite the fact that customer loyalty is built from what a customer perceive from the service to enhance customer loyalty there should be enabling environment for quick response to customer needs. Moreover, an adequate consideration to customer requirement and proper communication with customers (Akbar, 2012) to enhance repurchase and recommendation.

In addition, the study contributes to the body of knowledge on the influence of dimensions of service quality on m-payment industry. Initially shown the importance of Service quality model by Gronroos (1984) in digital era explaining that customer view on the service quality e quality dimensions differ in attitudinal loyalty and behavioural loyalty of Dick and Basu Framework (1994). This has provided a controversial view as technical quality has no influence on attitudinal loyalty while functional quality has no effect on behavioural loyalty. In the environment such as this the study provides an avenue for provider to improve customer support and need to maintain their reputation due to the role played in financial services. This means, the study has captured the peculiarity of mobile payment services and the sensitivity of financial transactions using mobile device because the services require prompt responses, quick solutions and convenience at all circumstances of business undertakings.

Limitation and direction for future research

Even though this study provides an examination of the influence technical, functional and reputational quality in recent mobile payment services on customer loyalty various limitations are regarded to the study. First, employing mobile payment services emanated from telecommunication industry and not banking industry in Tanzania implies more studies are needed in the sector to examine the situation outside the major city. This means other studies can extend to other regions in the country where the network is a challenge. Secondly, there is scarce empirical review on evaluation of the dimensions of service quality (Technical quality, functional quality and reputational quality) on customer loyalty; future research can embark on this. The nature of mobile money service appeals for more studies to be conducted on loyalty formation to get generalizations on the effect of speed, network performance as to make customers loyal or disloyal. On top of that if the customer recommends others to use the service what exactly do transpire? Likewise what are the reasons for repurchasing services? Lastly, this was a quantitative study; future research can embark on the mixed method to bring out further conceptualizations from a qualitative perspective.

Conclusion

This study has accredited customer loyalty as the core part in this research. The results obtained provide a strong foundation for considering technical quality, functional quality and reputational quality as important factor that influence customer loyalty.. The sample size employed in the analysis was 379 respondents who were the m-payment provider in Dar es Salaam city. The hypothesized measurement model comprised of six hypotheses and employed the Partial Least Square estimation method.

The results revealed that there is a positive relationship between functional quality and reputational quality on attitudinal loyalty. Besides in the other hypotheses on behavioural components revealed a positive relationship with technical quality and reputational quality.

However functional quality-behavioural loyalty was not significant, likewise, technical quality-behavioural loyalty was not significant. The overall findings shed light on customer loyalty formation in mobile payment services that with the use of digital device rendering service customer-service provider/service employee connection is reduced.

Moreover, the conceptualization of service quality-customer loyalty link needs to involve both dimensions of loyalty because in mobile payment customers may likely not consider the provision of technical solutions and how many times they request for service in their digital devices to hinder their repurchasing decision. This means firms need to project marketing efforts such as follow up what customer share to other customers, customer view when they wrongly sent a m-payment transactions and both behavioural and attitudinal loyalty.

Declaration of Conflicting Interest

The author declared no potential of interest regarding the research authorship and /or publication of this research paper

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Appendix: Summary of the EFA Results

<i>Latent Construct</i>	<i>Items</i>	<i>Loadings</i>	<i>C.R</i>	<i>AVE</i>
<i>Technical Quality</i>	<i>TQ1-complete services successfully</i>	<i>0.8307</i>	<i>0.882</i>	<i>0.652</i>
	<i>TQ2-no interruption</i>	<i>0.8572</i>		
	<i>TQ4-rcv mesgtech solution</i>	<i>0.7969</i>		
	<i>TQ5-wrong transfer tech soln</i>	<i>0.7416</i>		
<i>Functional Quality</i>	<i>FQ1-promptness</i>	<i>0.7350</i>	<i>0.922</i>	<i>0.553</i>
	<i>FQ3-responsiveness</i>	<i>0.7880</i>		
	<i>FQ4-Reliability</i>	<i>0.7030</i>		
	<i>FQ7-Understanding customer</i>	<i>0.7830</i>		
	<i>FQ11-Continuous improvement</i>	<i>0.8480</i>		
	<i>FQ12-Communication</i>	<i>0.7300</i>		
	<i>FQ13-Courtesy</i>	<i>0.7460</i>		
<i>Reputational Quality</i>	<i>FQ14-Competence</i>	<i>0.7250</i>		
	<i>FQ15-Access</i>	<i>0.7120</i>		
	<i>RQ1-reliable company</i>	<i>0.8260</i>	<i>0.901</i>	<i>0.646</i>
	<i>RQ2-excellent service</i>	<i>0.7990</i>		
	<i>RQ3-successful service provider</i>	<i>0.7510</i>		
	<i>RQ6-contribution to society</i>	<i>0.7840</i>		

	<i>RQ7-good reputation</i>	<i>0.8570</i>		
<i>Attitude Customer Loyalty</i>	<i>ACL1-say positive things</i>	<i>0.8660</i>	0.823	0.636
	<i>ACL2-provider as first choice</i>	<i>0.8060</i>		
	<i>ACL4sharing info with others</i>	<i>0.7140</i>		
<i>Behavioural Customer Loyalty</i>	<i>BCL5-keep use my provider</i>	<i>0.7460</i>	0.896	0.668
	<i>BCL6-new servc same provider</i>	<i>0.7900</i>		
	<i>BCL7-occasionally switch</i>	<i>0.9300</i>		
	<i>BCL8-do most of mpymnts wth same provider</i>	<i>0.7930</i>		

Source:Authors

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Honest Prosper Ngowi and Felister Ndumbaro

Alternative Financing: Crowdfunding for Business and Non-Business Motives in Tanzania

Abstract

As opposed to traditional financing, crowdfunding is an alternative source of financing various initiatives. It is done by raising huge sums of money by collecting small amounts from each of many individuals via the Internet. Various initiatives of using crowdfunding has been emphasized across the world (Agrawal, Catalini, & Goldfarb, 2015; Bruton, Khavul, Siegel, & Wright, 2015; Mollick & Kuppaswamy, 2014). Using documentary review, this paper examines applications of the crowdfunding concept for two separate motives. These are business and non-business motives.

Possibilities for using crowdfunding for business financing are identified and discussed. This is followed by empirical evidence of using crowdfunding for non-business motives. Based on their findings, the authors conclude that in the context of Tanzania, there is a wide-spread use of the concept of crowdfunding mainly through WhatsApp social media involving different kinds of groups. On the contrary, there is rather limited use of the concept of crowdfunding for business motives in Tanzania. The authors recommend for increased awareness on the concept of crowdfunding for business motives and what it takes for successfully funding businesses through this very important new and alternative source of financing.

Key words: Alternative financing, crowdfunding, business funding, Tanzania

SESSION 3 [B1]
11-1230/Wednesday, September 15th, 2021/Meeting Room B
Supply Chain, Marketing and Entrepreneurship
Session Chair: Dr Kato¹ Mshumbusi

Mshumbusi Kato

Youth Entrepreneurship And Higher Education

Abstract

Globally, innovation centers are acknowledged as among the most significant sources of creating employment, generating wealth both locally and nationally and the reduction of poverty in general. Innovation centers have generally acted as the drive behind economic growth, generation of employment and industrialization. The centres create a platform for entrepreneurs to access vital business information, business knowledge, networks, financial investments and other resources fundamental to the establishment and growth of the enterprises that may otherwise be unaffordable and inaccessible especially to the youth. Further, they assist startups to overcome early challenges associated with high mortality rate of small business thereby increase their survival rate. Increasingly the higher learning institutions within Africa are adopting the dedicated practical learning for complementing the traditional knowledge transfer methods. This paper examines the role of universities promoting youth entrepreneurship.

Annita Lugimbana

Students' Learning Experience During Covid-19 Pandemic In Tanzania: Implications For New Education Management Models

Abstract

From the first reported cases of Covid-19 in February, 2020, the disease has spread throughout the African continent, Tanzania being one of the affected countries. The Covid-19 epidemic has resulted to a number of mitigating and responsive reactions in various government sectors including education sector. This study examines students' learning experience in Covid-19 pandemic in Tanzania with the aim of drawing lessons for new education management models in Tanzanian education sector. The qualitative approaches were adopted in this study, basing mainly on literature survey. The study findings suggest a critical participation of state and other non-state actors in innovating useful interventions towards retaining a resilient education system for the post pandemic period. Following the widely posited widespread recognition of technology in the future of education sector in Tanzania, the virus epidemic provides a 'wakeup call' to grapple seriously with this future including massive investment in technology to ensure access to e-learning resources to the wider public. Furthermore, the numerous innovated means of teachers-students information sharing during the Covid-19 pandemic period need to be scaled-up to enhance distance learning among students' learning experience. Despite the fact

¹ Supported by Sustain Project

that primary children have little experience of study outside the classroom, they are unlikely to have adequate provision for learning at home or access to internet-enabled devices and the study findings further suggest many parents have no ability to provide sufficient support to their children learning. The study recommends the mainstreaming of e-learning practices during and after Covid-19 epidemic era in Tanzania.

Keywords: Students' *Learning Experience, Covid-19 and Education Management model*

Ms. Kantu Mbozi and Chama Mulanshi Goergina,

Investigating the Methodologies Used in Entrepreneurship Education and Training In Tevet Colleges In Zambia

ABSTRACT

This research was premised on the belief that education could change the way people do their businesses. The researchers argued that with a combination of both theoretical and practical approaches to the teaching of entrepreneurship, many graduates could run and manage sustainable business ventures in emerging markets.

Despite several entrepreneurship programs developed by the government and all the interventions to support the entrepreneurship movement, little attention has been paid to the methodologies used in the delivery of entrepreneurship.

This paper explored methods of teaching entrepreneurship courses to shape graduate entrepreneurs and prepares them for self-employment in emerging markets. This study was motivated by the researchers' concern that many students who study entrepreneurship in TEVET institutions in Zambia are not ready to become entrepreneurs or start ventures but not sustainable. The study was based on the assumption that a successful entrepreneurship education depends partly on the method of teaching that would develop entrepreneurial self-efficacy of the student.

Purpose

This study, therefore, investigated the effectiveness of entrepreneurship education as well as the teaching and assessment methods of this particular subject.

The key objectives were to find out the methods used in teaching entrepreneurship in TEVET institutions, to determine the ideal methods and to evaluate the impact of entrepreneurship education on the students.

Keywords: Entrepreneurship, TEVET institutions, Self-employment, methods of teaching.

1.0 INTRODUCTION.

Entrepreneurship education and training is vital in shaping Zambia's entrepreneurship/employer career pathway for the self-employed population of youths. It is thus appropriate in creating new business prospects and a basis for improving the country's economic standpoint. The Seventh National Development Plan recognizes Technical Education, Vocational and Entrepreneurship Training (TEVET) as a vehicle for sustainable National Development, increased skilled

person's employability, productivity and efficiency and promotion of self-employment (7NDP2017).

However, the ability of the formal sector to absorb TEVET graduates declined, while the majority of the active labour force is engaged in the informal sector. To respond to the dictates of the labour market the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) recently integrated the entrepreneurship education and training to equip TEVET graduates with basic business skills alongside vocational and technical skills on the premise that these graduates would seek opportunities for self-employment upon graduating as opposed to seeking formal employment that was scarce (Annual TEVETA Report 2019).

The successful performance of TEVET graduates in the informal sector is highly dependent on how action-oriented the teaching methodology of entrepreneurship education and training is conducted. Entrepreneurship is a practical course that requires a robust and high involvement of learners and is tailored to vocational skills being taught.

2.0 Background to the study

Entrepreneurship has been defined in several ways by various scholars. However, Tembo (2017) defines entrepreneurship as the ability to identify a need and develop an idea/ opportunity to make some gains out of it. Further, Tembo argues that the opportunities to generate income easily through entrepreneurship are all around us. To open the entrepreneur's eyes to see these opportunities is critical in any society. This can only be done by ensuring that we have institutions set apart for this purpose.

Entrepreneurship has been the backbone of the Zambian economy since the advent of privatization, as many people no longer depended on the government for them to survive except in few situations.

Privatisation saw a rise in the formation of Small and medium enterprises. Small and medium enterprises (SMEs) play a major role in economic development in every country. Literature on enterprise development suggests that in both advanced economies and developing countries, SMEs contribute on average 60 percent of total formal employment in the manufacturing sector (Bhattacharya, 2002). Therefore, for African economies, the contribution of the SME sector to job opportunities is even more important and accounts for about three-quarters of total employment in manufacturing.

The Zambia Development Agency (ZDA) has put in place several programmes to sustain small scale businesses (ZDA, 2013). These efforts have been categorised into three development pillars namely, capacity, access and operating environment. Despite these efforts, most of the entrepreneurs are operating in a downward spiral with most of them closing down their businesses and getting back to their old ways of doing business (ZDA, 2013). Following the identification of the many challenges faced by entrepreneurs in Zambia, the government had provided some policies to enhance the growth of entrepreneurs (ZDA, 2013).

3.0 Problem Statement

The government of the Republic of Zambia has put in place interventions to increase opportunities for students and graduates to engage in entrepreneurship

activities during or after college training as contained in the seventh National Development Plan on the promotion of skills development. This is to promote entrepreneurship activities for informal employment among TEVET graduates. Granted, TEVETA has been given the responsibility of providing Policy direction on the implementation of entrepreneurship education and training in all TEVET programs. To that effect, the entrepreneurship curriculum has been embedded in all TEVET programs taught in TEVET institutions across the country.

Also, a TEVET Graduate Empowerment Scheme established in 2008, facilitated the establishment of graduate enterprises among graduates of TEVET colleges. Recently, the Ministry of Higher Education developed an investment policy to promote entrepreneurship activities in colleges to enhance the practice of entrepreneurship taught at the institutional level. Furthermore, informal employment is now recognized as another form of employment to formal employment.

Despite the above interventions, it is still observed that graduates line up for formal employment and, those that venture into a business either fold their businesses even before takeoff or fail to develop viable business at all. This shows that there is a problem with the entrepreneurship education and training methodology.

Therefore, it was for this reason that the researchers investigated the methodologies used in entrepreneurship education and training in TEVET colleges and their effectiveness.

4.0 Research Methods

Out of 26 TEVET institutions in Zambia, the research sampled 10 colleges (representing all the 10 provinces in Zambia) with a target population of 256 people from the colleges under investigation. This included stakeholders, students, lecturers and those in management. Out of this population, 150 returned the questionnaires representing 59% response which was representative enough. The breakdown was as follows; 9 Principals, 9 heads of departments, 18 entrepreneurship lecturers, 9 entrepreneurship focal point persons, 3 from TEVETA, 3 from MOHE, 55 students and 4 entrepreneurship examiners.

Many data collection tools were used which included questionnaires, interview questions mostly (telephone-based due to Covid19 restrictions), focus groups and observations. This enabled the researchers to get to the detailed results.

5.0 Research Findings

The research findings were discussed under the following headings;

5.1 TEVET institutions offering entrepreneurship education

All the 150 respondents responded in affirmative to this question. According to government policy, all the TEVET institutions are mandated to offer entrepreneurship education to their students. This represents a 100% positive response.

5.2 How is Entrepreneurship Taught in TEVET Institutions?

Blended as	Number of Respondents	Percentage
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Stand-alone subject	125	83.3%
Full course with	15	10%
Topic in a subject	10	6.7%
Total	150	100%

Source: Fieldwork/Author 2021

All the 150 respondents indicated that entrepreneurship was compulsory in their institutions. However, out of the 150 respondents, 125 said entrepreneurship was offered as a stand-alone in all the courses, 15 respondents said it was offered as full course with lots of components while 10 respondents said it is offered as a topic in a particular subject. This question and objective were important because researchers wanted to know the extent to which the subject is offered and how much is covered.

5.3. At what level the subject is offered.

Institution	Level
TVTC	Diploma and Degree level
Solwezi Trades	Trade test, craft and Diploma
LVTC	Technician, Craft and Trade test
KIT	Technician, Craft and Trade test
Mongu Trades	Craft and Trade test
LIBES	Technician, Craft and Trade test
Chipata Trades	Craft and Trade test
Lukashya Trades	Craft and Trade test
Mansa Trades	Craft and Trade test

Source: Fieldwork/Author 2021

This question was asked only to Principals and training managers as it was more of an administrative question and it was important because the researcher wanted to know if the level of the learners could influence the subject or vice versa. From the levels that have been presented, it is evident that they would not have problems in learning and comprehending the subject.

5.4. Method of delivery

This question was asked to all the respondents to get a wider view of respondent's opinions and the responses were as follows;

Method	Number of Respondents	Percentage
Theoretically	115	76%
Practically	5	2%
As a project	15	10%
Experiential learning	5	2%
All the methods	10	10%
Total	150	100%

Source: Fieldwork/Author 2021

This question was asked to all respondents and out of 150 respondents, 115 said the subject is delivered theoretically, 10 respondents said it is offered using all the methods, 15 said it was through projects, 5 said it was offered as experiential while 5 said it was practical only. This question was important because the researcher wanted to know if at all the methods used for delivery are effective and to probe where the problem is.

It was noted that all the respondents that had indicated all methods were from one institution TVTC. This agrees with (Mwenya2015 – in Chanda 2015) who stated that ‘Without practical delivery of entrepreneurship then our attempt to create a creative and innovative nation are null and void. Theoretical teaching will just create the grades and not the entrepreneur that we intend to see

5.5. How the subject is assessed

This question was asked to all respondents and the responses were as follows;

Institution	Level
TVTC	Both Summative & formative
Solwezi Trades	Both Summative & formative
LVTC	Both Summative & formative
KIT	Both Summative & formative
Mongu Trades	Both Summative & formative
LIBES	Both Summative & formative
Chipata Trades	Both Summative & formative

Lukashya Trades	Both Summative & formative
Mansa Trades	Both Summative & formative

Source: Field work/Author 2021

All the nine institutions assess the subject both formatively and summative. However, though the learners are formatively and summatively assessed apart from TVTC, the rest of the Institutions assessment is focusing on students passing the exam. This question was important because the researchers wanted to know how the learners value the subject. It was noted that learners in these eight institutions do not pay much attention to entrepreneurship and mostly abscond classes because they want to concentrate on those subjects which will earn them marks and give them a job at the end of the course.

5.6. Time allocated for the subject

Institution	Level
TVTC	6 Hours/week
Solwezi Trades	1 Hour/week
LVTC	2 Hours/week
KIT	2 Hours/week
Mongu Trades	2 Hours/week
LIBES	2 Hours/week
Chipata Trades	2 Hours/week
Lukashya Trades	2 Hours/week
Mansa Trades	2 Hours/week

Source: Fieldwork/Author 2021

This question was asked to only lecturers and students and the following were the response. Of the nine institutions TVTC has allocated six (6) hours) to this subject because of its involvement and practical nature. While the rest of the institutions have allocated only 1 to 2 periods for entrepreneurship which means that learners have less interaction with this subject. This question was important because the researchers wanted to know how frequent the learners are exposed to the subject. It was noted that learners in these eight institutions do not have much time in entrepreneurship and hence find it to be bulky and could not do most of the projects.

5.7. How learners perceive the subject.

This question was asked to students only and the responses were as follows;

Perception	Number of Respondents	Percentage
Interesting	35	36%
Too Difficult	30	31%
Too involving	30	31%
It is Boring	5	2%
Total	95	100%

Source: Fieldwork/Author 2021.

Out of the 95 students, 35 said the subject was interesting, 30 said it was too difficult, 30 said it was too involving while 2 said it was boring and just wasting their time.

5.8. How many graduates have started their ventures after completing tertiary? Education?

This question was asked to lecturing staff and students and the responses were as follows;

What former students are doing	Number of Respondents	Percentage
Self-employment	35	49%
Job – searching	40	32%
Working for Govt./P. sector	20	17%
No idea	5	3%
Total	95	100%

Source: Fieldwork/Author 2021

Out of 95 respondents, 35 said former students are in self-employment, 40 respondents said they are job–searching, 20 said they are employed by the Government/ private sector and 5 said they had no idea what former students are doing. Of the 35 respondents, 20 representing 57% are from TVTC while the other 20 representing 42% are from the other institutions.

From the data that was kept by the head of sections/senior lectures, a very small percentage of former students are running their businesses. One such example is LVTC, in the last 2 years has graduated 850 students and only 10 representing 1% are running their own business, for Solwezi Trades in the last 2 years has graduated over 700 and only 5 representing 0.7% are running their own business while KIT has graduated 450 in the last 2 years and only 3 representing 0.6% are running their businesses. The situation is the same for the other institutions. This question was

asked because the researchers wanted to determine the effectiveness of the current teaching methods in shaping the learners and enhancing entrepreneurial self-efficacy.

5.9 Best method of teaching entrepreneurship education in TEVET institutions

Three suggestions came out strongly on the best approaches for teaching entrepreneurship in TEVET institutions as explained by the respondents. Respondents were split on the use of practical methods, the use of projects with theory and the combination of theory and practical. Due to its restrictive nature, the experimental method was not popular among the respondents.

6.0. Conclusion.

Given the course titles, and objectives of offering entrepreneurship education by the Colleges and universities in Zambia, it is presumed that entrepreneurial self-efficacy and creativity would be enhanced through appropriate teaching methods.

In the field of teaching entrepreneurship, there is a wide range of pedagogical methods, approaches and modalities; (Fayolle, et al, 2008 and Lonappan et al, 2011) quoted in Oyungi(2021).

The results pointed out the most common methods used in teaching entrepreneurship courses in the TEVET Institutions are group projects, experiential, lectures and business plans. Although these were common methods, it was found that they were classroom-based where students prepare and present in the classroom basically for purposes of fulfilling coursework requirements and passing the exams. Only one college, TVTC uses a variety of teaching methods (lecture, case studies, study tours, role plays, games, group projects, guest speakers and Student Oral Presentations).

From the data that has been presented, it is evident beyond reasonable doubt that the current methods do not seem to lead to the achievement of the objective of entrepreneurship education in Zambia. This paper concludes that there is no significant relationship between the method of teaching and the development of entrepreneurial efficacy among the students.

The overall delivery method is more of a traditional (classroom-based) approach with few instances of action learning.

Since there are multiple methods of teaching entrepreneurship, there is a need for curriculum developers to link pedagogy with the entrepreneurial outcomes of each category of learners. To minimize the traditional methods of delivery which put greater emphasis on theory and examinations, lecturers should encourage idea generation and hands-on activities.

7.0 Recommendations

The researchers wish to recommend as follows:

7.1. Recommendations to the Government

- 7.1.1 The government can also enhance the teaching of entrepreneurship at all levels of education. Learners at all levels of education must have a practical aspect of entrepreneurship. This will help the dropouts to create businesses even if they fail to complete secondary education

- 7.1.2. Government must revise the entrepreneurship policy to meet the aspirations of the current needs of society. The current policy has a bias towards grade twelve results. This leaves out the major entrepreneurs who are women and youths in the markets and streets who would like to venture into businesses but lack the skills to grow their enterprises.
- 7.1.3. The teaching of entrepreneurship must be spread to other areas than just TEVET institutions. All courses be it law, medicine, teaching, nursing name them, must have a stand-alone course of entrepreneurship to equip the graduates with survival skills away from their work.
- 7.1.4. TEVET institutions must be recommended/engage people with the right skills to teach entrepreneurship in the context of business not as an academic subject.

7.2. Recommendations to TEVET institutions

- 7.2.1 A more proactive approach must be used in teaching entrepreneurship. Students must be exposed to a real entrepreneurship classroom. This is a real touch to the entrepreneurship environment
- 7.2.2. All TEVET institutions must have model businesses to act as motivation to the graduate students. The start and the implementation of such businesses must be well documented to be accessible to the students
- 7.2.3. The last recommendation is that if entrepreneurship has to meet the intended objectives, colleges must ensure that they engage staff with the right skill and passion in the subject.
- 7.2.4. Institutions offering entrepreneurship must develop a follow-up policy to ensure that the students are helped with the after-training services. This helps the former students develop their businesses.

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Jerum Killumile, Johakim John, Nsubili Isaga

Analysis Of The Effectiveness Of The Labs And Hubs On Youth Innovation And Entrepreneurship In Tanzania

Abstract

This research intends to meet theme 5 in the call (Cross Cutting Issues – Entrepreneurship) through analyzing the existing labs and hubs programs for youth entrepreneurship, assess their effectiveness in terms of performance, and challenges and establish the model, which can be sustainably utilized in Tanzania incubation ecosystem for enhancing industrial economy in Tanzania. This study draws on two theories including; RBV- Resource based view theory and new venture creation theory to describe the necessity of incubation programs for startups and innovation ecosystem in Tanzania. The study will employ mixed method research designs (qualitative and quantitative methods), survey and case study design to meet the intended objectives. The expected ending results of this study include; understanding of the compatibility of existing labs and hubs entrepreneurship training programs with the youths' social-economic characteristics, and understanding of the current models and potential for integrating (synergy generation) the labs and hubs business learning in the formal training of Higher Education Institutions. It is also expected that, this study will help to Understand the factors that affect the performance of the labs and hubs in delivering their intended outcomes (employability, job creation and growth), and the level of awareness and scope of youth inclusion in the current labs and hubs entrepreneurship training in relation to geographic, ecosystem players, social and economic features. Researchers also expect to develop the labs and hubs strategic model for Tanzania, which take into account the innovation ecosystem, technology, structure, objectives at the end of this study depending on the findings of the study. Other expected outcomes include Policy recommendations, Improvement of research skills among junior researchers from the Universities involved in the project and journal publications.

SESSION 3 [C1]
11-1230/Wednesday, September 15th, 2021, Meeting Room C
Contemporary Management
Session Chair: Dr Macfallen Anasel

Anasel Macfallen²

Health Supply Chain Management

Abstract

Competitive pressures and severe cuts in public healthcare spending force healthcare organizations to reconsider their business strategies and management practices. In this important industry, managers need not only lower costs but maintain at the same time a level of quality services. In terms of cost, it is estimated that supply accounts for 25-30 percent of operational costs for hospitals. Supply chain management is thus currently regarded as having an important impact on reducing costs and improving performance in healthcare organizations. Within the healthcare industry, the supply chain associated with pharmaceutical products is critical in ensuring a high standard of care for patients and providing adequate supplies of medication for pharmacies. The healthcare supply chain involves the flow of both products and information, which involve the participation of several stakeholders. The main purpose of the healthcare supply chain is to deliver products in a timely manner, in order to fulfil the needs of providers. This paper provides an overview of supply chain management of health sector in Tanzania.

Habiba Nyenzi, Gladness Joseph, Fortunatus Fokas, Diana Mtei, David Kisusi,

A Review on Adaptation To Fast Changing Market In Supply Chain Management: A Case Of Tanzanian Small And Medium Manufacturing Enterprises

Purpose: The purpose of this paper was to review adaptation to fast-changing market (FCM) in supply chain management (SCM) among Tanzanian small and mediums scale manufacturing enterprises (SMEs) specifically aiming at exploring the level at which SMEs adapted to the fast-changing market, the challenges they encounter and the manner which adaptation affect the SMEs supply chain management.

Methods: This study conducted literature review covering research articles/journals and academic reports in the field of SCM among Tanzanian SMEs obtained online some of them being published while others are unpublished. The review was followed by content analysis so as to locate the information of interest by the researcher and then quantification of their intensity/frequency of occurrence among literature with the aid of Microsoft Excel 2013. The results were presented thematically and quantitatively using tables, numbers, percentages and chart.

² Supported by Sustain Project

Results: The level at which SMEs adapted to the FCM was very low which was accounted for by challenges like poor management and administration skills, lack of capital and limited information sharing, and limited knowledge. The review also revealed that adaptation to a fast-changing market could affect SMEs' supply chain management in many ways such as loss of potential advantage, loss of customer values, and rapid changes in SCM practices.

Conclusion:

SMEs like large business firms need to and have been attempting to adapt to the fast-changing marketing despite the fact that the level of adaptation has been very low. Given that the SMEs strive to adapt fast changing marketing whilst constrained by finances, the outcome on supply chain management was not so impressive which calls for financial support to SMEs among others.

Keywords: Fast changing market, supply chain management, SMEs,

Introduction

A fast-changing market (FCM) is one of the contemporary issues facing modern businesses across the world. Mullins and Sutherland (1998) viewed that this change is largely caused by rapid technological changes. The author continued by narrating that FCM can be blessing and cursing to business firms. For example, a firm can successfully reap the rewards that may arise from the apparent convergent of computers and mobile technologies by improving one or more of its supply chain management (SCM) practices such as timely delivery of goods and services to the customer, improving customer and supplier relationships, reducing costs, integrating activities of the firm and becoming agile (Nkwabi and Fallon, 2020). On the other hand, the firm can end up with a lot of uncertainties and risks along its SCM as it adapts to FCM (Mullins and Sutherland, 1998).

Mullins and Sutherland (1998) underlined the above uncertainties confronting the firms during adaptation to FCM as to include failure of the customers to articulate the needs that new technology may fulfil easily. Next is that managers of the firms are uncertain about how to turn the new technology into products that meet customer needs. The last is that managers of the first face uncertainty about how much capital to invest into the rapidly changing market as well as when to invest.

Hamisi (2011) contends that majority of the business firms which have been facing with the uncertainties and risks in the adaptation to FCM are the MEs. According to him, these firms are normally faced with hardship in finance which accounts for the failure to find a proper place in the domestic and global supply chain characterized by FCM. As the result, the profitable supply chains which need adaptation to FCM have continued to be dominated by transnational companies and multination companies (Hamisi, 2011).

Considering that the SMEs play a very important role in the world economy as they occupy about 95% of the global economy thereby contributing about 60% to 70% of employment (Mzomwe, 2015), they are also supposed to occupy the share in the profitable supply chains needing adaptation to FCM. In Tanzania's economy, it is estimated that SMEs are the most visible business ventures contributing about 35% of the GDP (Mwasalwiba, 2017). Hamisi (2011) viewed further that the SMEs had played a critical role in developing

the Tanzanian economy over years and decades through creation of employment opportunities, income generation, equitable distribution of income, and hence, contributing towards poverty alleviation. Based on the Economic Survey conducted by the Government of the United Republic of Tanzania in 2018, manufacturing SMEs alone contributed over 5% of the overall country GDP and were ranked in the 6th in terms of sectorial GDP contribution. Recognizing the potential role of the manufacturing SMEs in the country and their importance, this review was conducted so as to explore the level at which SMEs adapted to the FCM, the challenges they encounter and the manner which adaptation affects the SMEs supply chain management.

Literature review

Fast-changing market

The fast-changing market (FCM) can be considered as one of the emerging issues in the contemporary business environment. This is because some authors trace its development from the rapid technological changes which is also not the old phenomenon. For instance, OECD (2010) views that FCM can be traced back to the 1990s and elaborates that market for and the marketing of goods and services have undergone a profound transformation over the past 20 years. It further views that the FCM is accounted for by six factors namely; regulatory reforms, trade liberalization, new technologies, growth in services, higher education and literacy requirements, and change in consumer demographics, household finance, and time constraint. Based on OECD (2010), this paper developed a definition of the FCM as the rapid changes taking place in the market leading into existence of different varieties of goods and services in response to regulatory reforms, trade liberalization, new technologies, and growth in services, higher education and literacy requirements and change in consumer demographics.

For the context of the manufacturing SMEs, adaptation to the FCM implies producing the different varieties of goods and adapts to new service requirements that conform to the regulatory reforms, trade liberalization, new technologies, and growth in services, higher education, and literacy requirements and change in consumer demographics. However, due to financial constraints most SMEs face, they find very high uncertainties, risks, and even failure to adapt to FCM thereby leaving the profitable local and global markets dominated by the large companies (Hamisi, 2011). Mullins and Sutherland (1998) identified the practices that can address the uncertainties, risks and failure to adapt to the FCM. These are focusing more on probing than on measuring, involving prospective customers in idea generation, use of prototypes early to help in uncovering customer needs and market opportunities, and large-scale quantitative market researches focusing on determining the market size and price points.

Supply chain management

An extensive review of the literature shows that authors, professionals, and researchers in the field of supply chain management (SCM) have failed to come up with its concise definition. This has led to the development of different definitions which suit the specific context of the authors. These definitions also need to be crafted so as to suit the context of this paper. For instance, Nkwabi and Fallon (2020) defined SCM as a process, network or activities involved to ensure that goods and services move on time from the point of origin until products reach the final consumers. By relying on this definition, the SCM should apply strictly to the manufacturing firms only which deal with the products and their associated services such as transportation, assembly, and delivery.

Matay (2019) defines SCM as the flow of materials, information, and finance in a network consisting of suppliers, manufacturers, distributors, and customers. The other given definition by the author view SCM as the integrated planning, coordination, and control of all business processes and activities in the supply chain to deliver superior consumer value at less cost to the supply chain as a whole whilst satisfying requirement of other stakeholders in the supply chain. A supply chain consists of the series of activities and organizations that materials move through on their journey from initial suppliers to final customers.

According to Hamisi (2011), the concept of supply chain management is based on two core ideas. The first idea is based on the notion that every product or service reaching a final user represents the cumulative effort of multiple organizations collectively referred to as the supply chain. A second idea is based on the notion that while supply chains have existed for a long time, most organizations have only paid attention to what was happening within their four walls.

Further interpretation of SCM was made by Council for logistics management (1998) as cited by Hamisi (2011) by viewing SMC as systemic, strategic coordination of the traditional business functions and tactics across these business functions within a particular company and across businesses within the supply chain for the purposes of improving the long term performance of the individual companies and the supply chain as a whole. Mentzer (2001) defines SCM as systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole.

In the context of the current study, SCM brings more sense if it is viewed in line with Matay (2019) concepts which considers SCM as a network consisting of suppliers, manufacturers, distributors and customers. For this case, adaptation to FCM implies an overall response by all these components of the SMEs' supply chain towards the new requirements of changing market so as to maximize customer value and achieve sustainable competitive advantage.

Small and Medium Enterprise

Small and medium enterprises (SMEs) refer to non-subsidiary, independent organizations employing less than a given number of employees that varies across countries (Gonzalez, 2007 as cited in Mtaullah, 2019). They also include micro-enterprises essentially non-farm economic activities such as manufacturing, mining, commerce, and services (Khan, 2010 as cited in Mtaullah, 2019). Identification of SMEs uses two major indicators namely, level of investment (capital) and the number of employees. Capital factors vary among countries due to differences in development (economy) (Isaga, Masurel, and Monfort, 2015). However, in the Tanzanian business environment, micro-enterprises are those engaging up to 4 people with capital investment up to Tshs.5.0 million, small enterprises engage between 5 and 49 employees with capital investment from Tshs.5 million to Tshs.200 million and the medium enterprises employ between 50 and 99 people with capital investment from Tshs.200 million to Tshs.800 million (Isaga, *et al.*, 2015). In this paper, these SMEs were

Empirical literature

Different authors of the relevant literature materials utilized by this paper conducted their studies on SCM with different aims and outcomes. As far as the results from these studies on the level at which SMEs adapted to the fast-changing market, challenges they encounter, and the manner in which adaptation affected the SME's supply chain management concern, Table 1 provides an overall summary.

Table 1: Brief details of FCM related studies among Tanzanian manufacturing SMEs

S/N	Research article/journal/report	Year	Purpose	Results		
				Level of adaptation to FCM among SMEs	Challenges towards adaptation to FCM	Effect on SMEs SCM
1	Mullins and Sutherland	1998	Exploring new product development in rapidly changing markets	Very low compared to large business firms	<ul style="list-style-type: none"> ▪ Inability to mitigate risk ▪ High uncertainties ▪ Inability to increase success of new products/services 	-
2	Nkwabi and Fallon	2020	Assessing the factors affecting the effectiveness implementation of SCM in food manufacturing SMEs in Dar es Salaam.	Low	<ul style="list-style-type: none"> ▪ Low knowledge about supply chain ▪ Ineffective management ▪ Unsophisticated technologies ▪ Weak strategic supplier relationships 	<ul style="list-style-type: none"> ▪ Significant changes in lead time, productivity and agility
3	Mollel	2015	Exploring impact of SCM practices on organization	Uneven among SMEs	<ul style="list-style-type: none"> ▪ Inability to align all SCM practices with the 	<ul style="list-style-type: none"> ▪ Uneven implementation of the SCM practices

			<p>al performance in food processing firms of Dar es Salaam, Tanzania</p>		<p>FCM equally</p> <ul style="list-style-type: none"> ▪ Low level of information sharing ▪ Poor outsourcing 	among actors
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S/N	Research article/journal/report	Year	Purpose	Results		
				Level of adaption to FCM among SMEs	Challenges towards adaptation to FCM	Effect on SMEs SCM
4	Ruteri and Xu	2009	Exploring SCM and challenges facing the food industry sector in Tanzania	Low	<ul style="list-style-type: none"> ▪ Low understanding of SCM concepts ▪ Inability to adapt FCM ▪ Lack of technical know how ▪ Lack of R&D ▪ Lack of capital ▪ Poor managerial and physical infrastructure ▪ Poor order processing ▪ Limited application of IT 	<ul style="list-style-type: none"> ▪ Loss of potential advantage ▪ Loss of customer values
5	OECD	2010	Changing consumer market	Low	<ul style="list-style-type: none"> ▪ Low understanding of dynamics taking place in the market ▪ Inability to meet the expansion in the choices of goods and services among consumers 	<ul style="list-style-type: none"> ▪ Rapid changes on SCM practices
6	Ngusa, Mruma and Nawaz	2020	Analysis of effect on e-commerce on SCM in facilitating the entrepreneurs in Tanzania	-	<ul style="list-style-type: none"> ▪ Poor store locations ▪ Poor delivery facilities/network ▪ Limited information on FCM 	<ul style="list-style-type: none"> ▪ An overall negative performance IN SCM

S/N	Research article/journal/report	Year	Purpose	Results		
				Level of adaption to FCM among SMEs	Challenges towards adaptation to FCM	Effect on SMEs SCM
7	Matay	2019	The effect of ICT on SCM practices in Tanzania.	Low	<ul style="list-style-type: none"> ▪ High running cost 	<ul style="list-style-type: none"> ▪ Fluctuation in overall financial performance of the supply chain
8	Hamisi	2011	Challenges and opportunities of Tanzanian SMEs in adapting SCM	Low	<ul style="list-style-type: none"> ▪ Hardship in finance ▪ Inability to meet high inventory level ▪ Inability to set required customer service level ▪ Inability to meet high transportation and logistics cost ▪ Complexities associated with global sourcing ▪ Use of outdated and/non-integrated technologies 	<ul style="list-style-type: none"> ▪ Leaving the local and global market dominated by transnational and multi-national companies

Source: Authors (2021).

Methodology

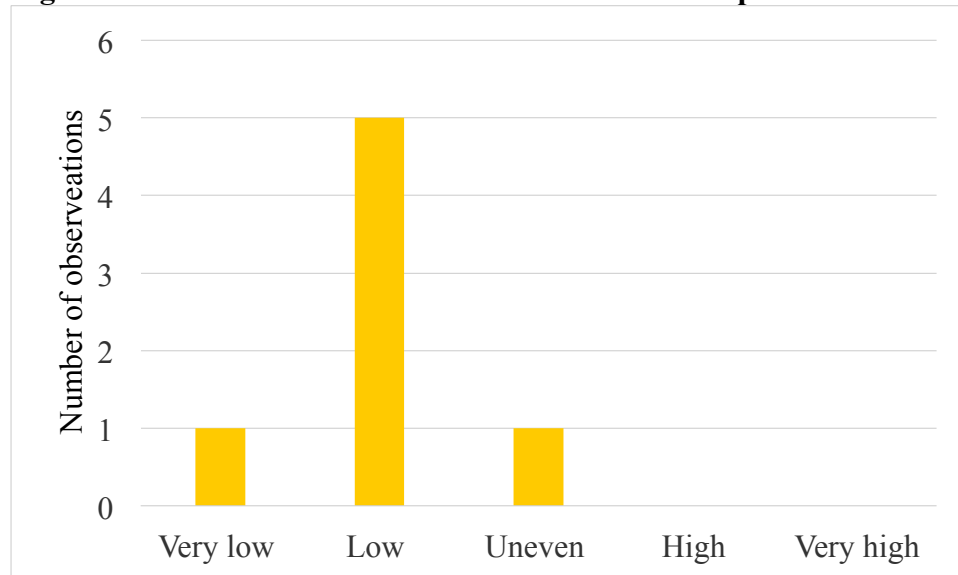
This study conducted a literature review covering research articles/journals and academic reports in the field of supply chain management among Tanzanian SMEs obtained online some of them being published while others are unpublished. In order to select the most relevant literature, the attention of the researchers was paid most to the relevance of the context of the literature to the specific objectives of the study. These literature materials were located using Google Search Engine using the most specific keyword which stated ‘studies relating fast-changing market and supply chain management among Tanzanian manufacturing SME’. The review was followed by content analysis so as to locate the information of interest by the researcher and then quantification of their intensity/frequency of occurrence among literature with the aid of Microsoft Excel 2013. The results were presented thematically and quantitatively using tables, numbers, percentages, and Figures.

Results and discussion

The level at which SMEs adapted to the FCM

The findings of this study showed that the level at which SMEs adapted to the FCM was low. This was consistently identified in 5 out of 8 reviewed kinds of literature. Further, 1 of 8 of the reviewed literature showed that the level of adaptation was very low compared to a large business firm. It was also observed in 1 of 8 literatures that the level of adaptation among SMEs themselves was uneven. A summary of these results is shown in Fig. 1.

Figure 1: Statistic of observations on the levels of adaptations to FCM among SMEs



Source: Review (2021).

Based on the results shown by Fig.1 the current study established that level of adaptation to FCM among Tanzanian SMEs was generally low. Considering that majority of the studies which gave the information above were based on the food processing firms (manufacturing), these results can be generalized to the manufacturing SMEs in Tanzania.

The level of adaptation to FCM shown above does not mirror the significance and potential role of SMEs in Tanzanian economy. Given their contributions in creation of employment opportunities, income generation, equitable distribution of income and hence, contributing towards poverty alleviation which cannot be overemphasised (Hamisi, 2011) the level should be improved. As suggested by Mullins and Sutherland (1998), this can be achieved by ensuring that SMEs focus more on probing than on measuring, involving prospective customers in idea generation, use of prototypes early to help in uncovering customer needs and market opportunities and large scale quantitative market researches to determine market size and price points ceiling introduced by FCM.

Challenges encountered by SMEs towards adaptation to FCM

The reviewed literature contained abundant information pertaining to the challenges they encountered towards adaptation to FCM. However, the contents analysis made by researchers to identify the most frequently reported challenges organized them as follows: Limited knowledge about FCM and SCM, lack of capital to meet the FCM requirements, poor management and administration skills and limited information on FCM. The number of related observations made on these challenges were counted and a summary of the results were as shown by Table 2:

Table 2: Number of related observations

S.N	Challenges	Number of related observations	Percentage
1	Limited knowledge about FCM AND SCM	5	19.2
2	Lack of capital to meet FCM requirements	6	23.1
3	Poor management and administration skills	9	34.6
4	Limited information sharing	6	23.1
5	Total observations	26	100%

Source: Review (2021).

According to Table 2, the challenges encountered by the majority of the SMEs toward adaptation to FCM were more related to poor management and administration skills (34.6%). This challenge is followed by a lack of capital to meet FCM requirements and limited information sharing (23.1% both). Also, there are challenges relating to limited knowledge about FCM (19.2%).

The poor management and administration challenge encompass issues like inability to mitigate risk, inability to increase the success of new products/services, inability to adapt FCM, poor managerial and physical infrastructure, inability to meet the expansion in the choices of goods and services among consumers poor store locations and weak strategic supplier relationships (Reuters and Xu; 2009; OECD, 2010; Hamisi, 2011). Next, lack of capital to meet FCM requirements relate to issues like high running cost, hardship in finance, inability to meet high inventory level, and inability to meet high transportation and logistics cost (Mata, 2019; Hamisi, 2011). Through this review, the manufacturing SMEs are regarded not to have the finance to afford them.

Further, limited information sharing encompasses the challenges like limited application of IT, limited information on FC, and use of outdated and/non-integrated technologies (Reuters and Xu; 2009, Ngusa, *et al.*, 2020, Hamisi, 2011). According to this review, manufacturing SMEs inherent these weaknesses which in turn create hurdles towards adaptation to FCM. Moreover, limited knowledge related to challenges like lack of technical know-how, low understanding of dynamics taking place in the market, low knowledge about supply chain, and inability to align all SCM practices with the FCM equally (Mullins and Sutherland, 1998; Ruteri and Xu, 2009; OECD, 2010; Nkwabi and Fallon, 2020, Mollel, 2015).

The manner in which adaptation to FCM affected the SMEs supply chain management

The review on the manner in which adaptation to FCM affected the SMEs SCM revealed that this is one of the most areas relating the FCM to SCM not yet gained high recognition by researchers, professionals, and writers. For this reason, the review did not identify the information which required quantification.

However, it was observed that adaptation to FCM lead to the effect like loss of potential advantage, loss of customer values, rapid changes on SCM practices, negative performance in SCM, creation of situation whereby the local and global market is dominated by transnational and multi-national companies, lead into significant changes in lead time, productivity and agility and uneven implementation of the SCM practices among actors.

Conclusions and recommendations

The conclusion drawn by this review is that level at which SMEs adapted to the FCM was generally low which did not mirror the significance and potential role of SMEs in the Tanzanian economy. This was accounted for by four groups of challenges namely poor management and administration skills, lack of capital to meet FCM requirements and limited information sharing, and limited knowledge about FCM. The review also established that manner in which adaptation to FCM affected the SMEs was not yet to gain high recognition by researchers, professionals, and writers. However, the study identified the effect like loss of potential advantage, loss of customer values, rapid changes on SCM practices, negative performance in SCM, and the local and global market is dominated by transnational and multi-national companies.

From this review, it is recommended that the level at which manufacturing SMEs adapt to FCM should be increased. This will avoid leaving the profitable local and global market to the transnational and multi-national companies whilst the SMEs are the first and foremost sector in the Tanzanian economy. This should be achieved by improving management and administration skills, availability and access to capital to meet FCM requirements, adequate information sharing, and proper knowledge about FCM and SCM among SME owners and managers.

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Analysis On The Impact Covid-19 Pandemic On Supply Chain Management And Its Direct And Indirect Impact On The Level Of Quality Customer Service In The Banking Industry: A Case Of Crdb Plc

Abstract

The impact of the COVID-19 pandemic on the national economy is very huge; the financial sector is among the sectors that have been facing challenges due to the side effects brought by the pandemic. Among the challenges brought by the COVID-19 pandemic on the banking industry is the huge reliance by the customers (entrepreneurs) as the source of income of reviving the affected business. The huge reliance on the banking industry has led to the challenge of how to manage the demand of customer service during the moments where supply chain management performance has decreased. Thus, study aimed at showing how the COVID-19 pandemic has affected supply chain management and its direct and indirect impact on the level of quality customer service in the banking industry. The study has discovered that due to the COVID-19 pandemic, the supply chain management of the bank has undergone serious challenges that have lowered its level of performance. The impacts of COVID-19 pandemic have made difficult for the department of operation management to perform its responsibilities with quality standard. Due to the challenge of the COVID-19 pandemic, the quality of service provided by the company reduced based on the type of service demanded. Due to the COVID-19 pandemic precautions, the number of customers who were allowed to be at the branch was reduced to implement the social distance rule. The study recommended that the supply chain management of the organization must have its risk management plan for the aim of making sure that the company is conducting its responsibility safely during the challenges such as the COVID-19 pandemic

Key words: Supply Chain Management, Customer Service Quality, COVID-19 pandemic

1. Introduction

The quality of customer service in the banking industry relies hugely on the effectiveness of the supply chain management of the company. Supply chain management refers to the flow of goods and services in the well arrange systematic process that aims at increasing the level of productivity in the organization, supply chain management includes all processes, which transforms raw materials into final products. The major aim of supply chain management is

to enhance the level of customer values as well as improving the organization capability of gaining the competitive advantages.

Customer Service is among of the major area in the business, which guarantees the success of the business during the economic crisis. There is the big connection between quality customers' service and the high level of customers' satisfaction. Supply chain management in the organization is the key area in the company, which is having the role of making sure that the company is delivering the quality level of customer service and customers are satisfied (Sarkar and Chung 2020).

Customer Service in the banking industry is among of the most significant banking operation. Through customer service departments, banks have become in the best position of attracting customers as well as gaining the competitive advantages in the sector, which is very competitive in nature. During the COVID-19 pandemic the banking sector were the only hope remained to provide relief in the business sector, which has been affected by the pandemic.

In Tanzania, banks and other financial institutions were required by the central bank of Tanzania: Bank of Tanzania (BOT) to reduce the interest rates to support the initiative of reviving the businesses affected by the COVID-19 pandemic. Banking industry is trusted to be capable of solving the challenge brought by COVID-19 pandemic in the country, the trust on the bank industry as the solution of the challenge brought by COVID-19 puts so much pressure on the operation management of banks to introduce the service designs, which overcomes the demand pressure.

The growing recognition of the consumers and their interests, shifting demand and strong competition in the bank sector has led to the need of continuous improvement on the bank services for the aim of enhancing the level of customers' satisfaction. According to Pundir (2017), there is the growing number of rivalry between the commercial banks for the aim of improving the level of customers' service as well as increasing and protecting the customers segments. Different approaches of operation management have been used for the aim of making sure that the level of customers' loyalty is enhanced.

Supply Chain Management is among of the most affected areas in the business management, which is highly affected by the COVID-19 pandemic, the pandemic changes the way business is operating at both the business and the global level for the aim of minimizing the impact of economic downfall brought by the COVID-19 pandemic. COVID-19 pandemic has catastrophically challenge the way business is operating around the world and for the aim of getting back to the business the supply chain management departments in the organizations are having the responsibility of positively improving their operational (Sarkar and Chung 2020)..

The pandemic of COVID 19 has affected the implementation of many organizations strategies hence led to the hardship of attaining the corporate mission and goals. The successful management of the COVID-19 pandemic requires the assessment and management of risks, which extend beyond the international boundaries and it has negatively affected the aviation industry and the transportation sector in general. It has been advised that the aviation authorities and the airline companies to assess the COVID-19 risk as well as developing the management risk which reduces the spread of COVID-19 (Forbes, 2020).

The lack of analytical data related to the impact of service design on the improving the level of customers satisfaction and customer loyalty leads to need of conducting the study on how the operation service can be used in improving the level of customers service in the organization and suggesting the approaches of increasing the quality of service and optimize the level of customers satisfaction (Anjalika and Priyantha, 2018)

1.1 Statement of the problem

The impacts of COVID-19 on the development of entrepreneurial activities in Tanzania need to be monitored and minimized. Banks have been regarded as the best solution of improving the banking sector; this has pressurized to banks operation managers to make sure the supply chain management to improve the level of quality customers' service. Supply chain management plays the vital role in improving the level of quality customer service, but how supply chain management have improved the level of service quality and help the bank industry in coping with the challenges brought by COVID-19 is still unknown in Tanzanian context.

This paper is aiming at showing how the COVID-19 pandemic has affected the effectiveness of supply chain management and lowering the quality of customer service. This paper also aims providing the ways of which supply chain management will be improved for the aim of enhancing the level of customer service. For the aim of coming up with the quality result on how supply chain management as part of operation management improves the level of quality customers' service, this paper is going to analyze the banking industry of industry using CRDB bank as the case study to analyze how supply chain management improves the level of quality customer service as well as meeting the demands of the bank management in archiving the goals and vision of the company.

2. Research objectives

The general objective of the study is to show how COVID-19 pandemic has affected supply chain management and its direct and indirect impact on the level of quality customer service in the banking industry.

2.1 Specific objectives of the study

From the general objective of the study, the researcher developed the following specific objectives

- i. The impact of COVID-19 on supply chain management of CRDB bank
- ii. To address the impact of COVID-19 on customers services of CRDB bank
- iii. To show the relationship between supply chain management and customer services of CRDB bank.

3. Literature review

This section aims at providing the previous scholars thoughts on the concept of quality customer service as well as the concept of supply chain management.

3.1 Definition of key terms

- **Supply chain management:** Supply chain management refers to the flow of goods and services in the well arrange systematic process, which aims at increasing the level of productivity in the organization, supply chain management includes all processes, which transforms raw materials into final products. The major aim of supply chain management is to enhance the level of customer values as well as improving the organization capability of gaining the competitive advantages (Shepherd and Gunter 2006).

- **Service design:** Service design refers to an activity of planning as well as arranging people, infrastructure, communication and material components of a service for the aim of improving its quality and the interaction between the service provider and its user or customers. Due to the COVID-19 pandemic, the interaction between the customers and the service providers was reduced and distract.
- **Quality Service:** Quality service is generally viewed as the output of the service delivery system of the company. There is the big connection the quality service and the level of customers' satisfaction of the company. Quality service plays the vital role in insuring the success of the organization. The process of managing quality services delivered to the customers according to their expectation it is called quality service management.
- **Customers Service:** Customer service refers to the perception customers are always having about the quality and fair treatment and services received under the expectation, which are clearly set by the service provider. If customers are well treated with courtesy and the high level of services which are provided within the required timeframe, the possibility of customer to satisfy with the possibility provided is very high (Shepherd and Gunter 2006).

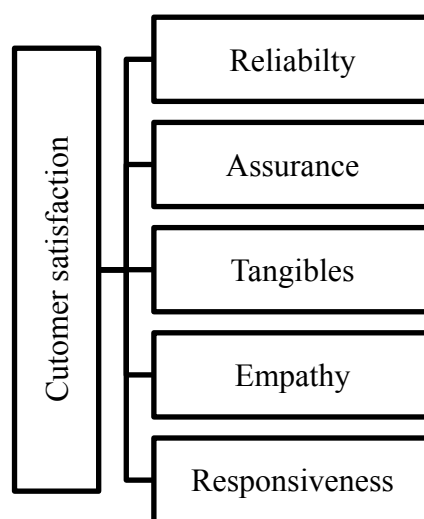
3.2 Theoretical Framework

This section analyses different theories used in explaining the customer service quality as well as supply chain management.

3.2.1 Service Quality (SERVQUAL)

Service quality (SERVQUAL) is generally referred as the service quality model developed by Parasuraman et al (1985); the model is used as the conceptual framework of defining service quality from the customers' perspective by looking at the element of service elements and customer satisfaction. The model is composed with elements of Reliability, Assurance, Tangibles, Empathy as well as Responsiveness.

Figure 1: Service quality dimension



Source: Parasuraman et al. (1985)

The SERVQUAL model was initially designed to be applied to be used by the service firms and retailers. In reality SERVQUAL takes the broader perspective of the services as is going beyond the normal definition of customer service. One of the drivers for the development of SERVQUAL model was the unique characteristics of service as compared to the physical products. The unique characteristics of service make it difficult to assess the effectiveness of service compare to the tangible products. SERVQUAL model provides the service firms and the retailers with the structured approach of assessing the set factors which influences consumers perception of the firms overall service quality.

3.2.2 Theory of waiting management (Queuing Theory)

The operation management of the organization uses the queuing theory in designing the balanced system that can save the customers efficiently and at the very quickly speed. The queuing theory involves the analysis of arrival at facility and the service requirement of the facility. By using the queuing the business or the organization operation can be in the best position of developing the more efficient queuing system, process of service delivery, pricing system and the arrival management strategies to reduce the customer wait time as well as to increase the number of customers that can be served. Generally the queuing theory improves overall customer services.

The queuing theory refers to the mathematical study of congestion and delays of waiting in line. Queue lengths and waiting times may be anticipated with the use of a queuing model. Because the results are frequently employed for making business choices regarding the resources needed to offer a service, queuing theory is widely considered a part of operations research. Queuing theory, a subset of operations research, can assist users in making informed business decisions on how to design efficient and cost-effective workflow systems. Queuing theory's real-world applications include improving customer service, improving traffic flow, efficiently shipping items from a warehouse, and designing telecommunications systems, from data networks to contact centers.

3.2.3 Relationship between customer experience and Service Design

Experiences are created when a provider intentionally uses services as the stage, and goods as props, to engage customers in a way that creates a memorable event (Ramanathan and Gunasegaram 2014). It is the primary responsibility of the organization to determine the best way of improving customer satisfaction through developing the service design, which will insure an improved customer experience. According to Ramanathan and Gunasegaram (2014), service design is the activity of designing and organizing people, infrastructure, communication, media, and components of a service in order to improve its quality, customer contact, and experience. The service design involves the queuing system of the company, which in one way or the other is the key determinant of customer satisfaction. An experience entails aggregate, cumulative customer perceptions created during interactions with a product or service (Ramanathan and Gunasegaram (2014)

Higher adoption and retention rates, as well as increased customer satisfaction, may be achieved with a Service Design-led strategy. In a highly competitive global market, this leads to greater revenue and market share. The overall experience is consistent and easy to understand, with little to no friction for the customer between touch points, thanks to Service Design. Service Design enables companies to deliver experiences that create value for customers and allow for meaningful connections between the customer and the company,

service Design becomes the catalyst for innovation and future growth opportunities. According to Crues (2009), there is the direct connection between the service experience designs and customer satisfaction.

4. Methodology of the study

Kothari, (1992), argues that research design as a conceptual structure within which research is conducted. It entails a precise plan for data gathering, measurement, and analysis. The study applied the use of case study research design for the aim of obtaining the in-depth information concerning the study. CRDB was used as the case study of this paper. The study applied qualitative research method; the method offers a complete analysis and description of the research problem without limiting the scope of the research and nature of the participants (Collis & Hussey, 2003).

The study used secondary and primary data collection tools. Secondary data refers to information that has already been gathered and is readily available from other sources. Such information is less expensive and more readily available. The researcher applied documentation as the secondary data collection tool. Documents involving statistical and theoretical information concerning. Primary data are the information obtained directly from the source; primary data were collected through observation. Data delivered from the field was analyzed qualitatively.

5. Analysis of Finding and Discussion

This section aims at analysing data as they were obtained from with observation. The process of analyzing and discussing the findings of the study will be guided with the specific objectives of the study which are the impact of COVID-19 on supply chain management of CRDB bank, to address the impact of COVID-19 on customers services of CRDB bank, to show the relationship between supply chain management and customer services of CRDB bank.

5.1 The impact of COVID-19 on supply chain management of CRDB bank

Supply chain management is among of the major responsibility of the operation department of the bank industry. In the banking industry supply chain management deals with the flow of goods and service which includes the movement and storage of raw materials, work process and finished goods from the origin to the point of consumption, supply chain management in the banking industry is basically dealing with the introduction of service, arrangement of service (service design) as well as how the customer are provided with services to insure the high level of services provided to the customer.

Due to the COVID-19 pandemic, supply chain management of the bank has undergone the serious challenges which have lowered its level of performance. The impacts of COVID-19 pandemic have made difficult for the department of operation management to perform its responsible with quality standard. Due to COVID-19 pandemic, the general system of service design, which operates under supply chain management, has been distorted and has forced the bank management to restructure service design provision to the customers' waiting for services.

COVID-19 pandemic led to the low supply of material due to the ineffectiveness of the suppliers (agents) to deliver raw material on time. Due to the impact brought by COVID-19 pandemic most of the suppliers which provides the raw materials to the company closed their service, this led to the shortage of the materials demanded by the company in the daily operation activities. In addition, most of the agents outsourced with responsibility of doing the air ticketing activities closed their business due to the economic downfall impacts brought by the COVID-19 pandemic at both the international and global level.

COVID-19 pandemic has made the supply chain unable to serve many customers within the short period and caused the high number of customers in lining waiting for service. Waiting time management system management was also distorted due to the policy introduced by company, which requires some of the employees to be working from home hence reduces the number of service provider at the office as most of the employees were working from home. Due to the COVID-19 pandemic the average time of customers service per hour in the service centers of CRDB had to be reduced hence distorts the whole system of waiting time management.

5.2 The impact of COVID-19 on the provision of quality customer service of CRDB bank

Due to the challenge of COVID-19 pandemic the quality service provided by the company reduced basing on the type service demanded. Due to the COVID-19 pandemic precautions, the number of customers, which were allowed to be at the branch, was reduced to implement the social distance rule. Quality Customer Service in the airline industry is highly relying on the effectiveness of the services design and waiting time management. Due to the change in service design, which was used by the bank before the pandemic, the customers are currently spending much time waiting for the service.

Due to COVID-19 pandemic, the high number of customer preferred to the use the online service as the best way of making sure that they are obtaining the quality services within the short time of period. Reliance on electronic system increased the workload to the system, which could not be handled and led to the traffic of customer requests waiting for the services online. Due the COVID-19 pandemic precautions some of the workers were required to work from home hence reduced the number of workers at the service branch, this threaten the capability of the bank to serve the high number of customers during the pick hours.

5.3 To show the relationship between supply chain management and customer services of CRDB bank

Basing on the findings delivered from the field through observation, it has been discovered that there is the direct relationship between supply chain management in the organization and the quality of customers' service. The observation conducted by the research have shown the major responsibility o of supply chain management which are service design, insuring enough supply of service, as well as managing the level of waiting time are having the huge influence on customer service development of the organization.

The study has discovered that the general responsibility of the customer service design which is to insure availability of quality service to the customers can only be effective with the assistance of the supply chain management of the bank. Supply chain management of the company plays the vital role in making sure that all of the operations such as quality service

design of the organization are adhered for the aim of improving the level of quality service in the organization.

6. Conclusion

The study has discovered that the banking sector of Tanzania has passed through the drastically challenges during the COVID-19 pandemic. The impacts caused by the pandemic have hugely affected the supply chain management of the company as the capacity of the company on handling the high number of customers decreased. Nevertheless the fact the fact that Tanzania did not practice lockdown policy the number of customer visiting the bank during COVID-19 pandemic did not decrease hence led to difficulties in managing them. Through the observation conducted by the study it is widely clear, most of the financial institutions are not having the strategic supply chain risk management plan of handling special risks such as COVID-19 pandemic.

6.1 Recommendations

For the aim of improving the level of supply chain management and customer, service particularly in the financial institution during the pandemics such as COVID-19 the researcher recommends the following to be adhered.

- i. Introducing the supply chain risk management plan: Despite the fact that organizations are always having the risk management plans, it is vital to make the supply chain management of the organization must have its own risk management plan for the aim of making sure that the company is conducting its responsibility safely during the challenges such as COVID-19 pandemic:
- ii. Investment on Technology: The study has discovered that most of the challenges faced the company relating to customer service and supply chain management could be easily solved with technology, hence it is vital for the company to invest on the modern banking technology.

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Effect Of Supply Chain Risk Management Strategies On Performance Of Food Manufacturing Companies In Tanzania

Abstract

This study is focused on evaluating the impact of supply chain risk management strategies on supply chain performance of food manufacturing companies in Tanzania. The supply chain risk management strategies include flexibility, supply chain collaboration, supply base rationalization strategy, risk control and risk avoidance. This was an explanatory survey study on the supply chain risk management strategies in food manufacturing companies in Tanzania. The target population was all food manufacturing companies in Tanzania. The research population was 187 food manufacturing companies in Tanzania drawn from a TFDA directory using a census survey method. A five-point Likert scale questionnaire was administered to senior-level managers with the knowledge of supply-chain and logistics functions. Both descriptive and inferential analysis was done using SPSS. The study established that supply chain risk management strategies have influence on performance of food manufacturing companies in Tanzania. This study concludes that the most important SCRM strategies on the performance of food manufacturing companies in Tanzania are the SC avoidance strategies. The second most influential SCRM strategies on the performance of a food manufacturing companies are SC control strategies followed by SC flexibility strategies. Supply chain collaboration strategies have the least influence on food manufacturing companies in Tanzania. The study recommends, among others, that the study FOOD manufacturing firms must recognize SC flexibility, collaboration and supply base rationalization some score supply chain risk management strategies, and that achieving world-class performance depends on managing supply chains risks. Firms should support supply chain risk management with dedicated employees, resources, investments, and best practices to ensure that firms supply chain efforts satisfy customers in the most productive, cost-effective way possible.

Key Words: *Supply Chain Management Risk, Flexibility, Collaboration, Risk Control, Risk Avoidance*

1.0 Introduction

Complexity, technological progress, globalization, speed of product cycles, and the general pace of change have increased companies' uncertainty, susceptibility and interruptions (Wagner & Bode 2019; Coleman 2019). This is why supply chain risk management (SCRM) in most organizations is becoming a fundamental aspect of risk management (Tomlin, 2019; Ghagde, Dani & Kalawsky, 2020). All the parties engaged in completing a customer's request are a supply chain, directly or indirectly. The supply chain not only covers the manufacturer and suppliers but also carriers, warehouses, retailers and even customers (Chopra, Meiindl & Kalra, 2018). The supply chain, Mentzer, Min and Bobbitt (2020) report, comprises three or more companies, organizations or individuals that are directly engaged in upstream and downstream product service, financial and / or customer data flows. Different researchers such as Monczka, Trent and Handfield (2020) have characterized the supply chain as covering all the operations related to the flow of products from the commodity stage to the end consumers.

Supply chains have grown more likely to be unpredictable and to cause supply disturbances and weaken performance in the supply chain (Kihyun, 2019). Globally, none other industry relies more on public trust than the food business, which is more vulnerable to disruptive threats at present (Roth, Tsay, Pullman & Gray, 2018). Sheffi (2017) states that firms might be exposed to disruption unless adequate policies are in place to address these threats fundamentally. The literature shows that supply chain risks impact the performance of the supply chain. Kern et al. (2019) focused on the upstream SCRM process parameters and demonstrated a higher performance of competent SCRM in enterprises. Papadakis (2019) empirically analyzes and compares the stock performance of companies encountering supply interruptions to explore supply chain vulnerability. The study showed that a high-risk supply chain cannot be effective. In an examination of supply chain disruptions, Schmitt (2019) illustrates the effectiveness of supply chain risk management solutions on a numerical basis. Schmitt (2019) Of an empirical research, Hendricks and Singhal (2017) reported that supply chain disruptions might contribute to poor financial performance in a firm in the long run in particular with regard to shareholder wealth and returns on shares in comparison to industry benchmarks.

Srinivasan et al. (2019) examined the link between the quality and delivery chain buyer-supplier partnership and the moderating effect of supply chain risk in this connection. The results reveal a favorable association between the quality and performance of the supplier partnership between the buyer and the supplier. The report also found that the presence of demand-side risk and environmental uncertainty significantly modulates these positive relationships, which implies that supply chain managers must establish close links with their suppliers on the basis of mutual trust and openness because this will ameliorate demand-side risks. The supply chain risk according to Wagner and Bode (2018) only partially explain the varying performance of the supply chain and there is a notable link between regulation, legal and bureaucratic risks, infrastructural risks, catastrophic risks and the performance of the supply network. The impacts of different kinds of supply chain risk on supply chain performance were examined by Wagner and Bode (2018). The results demonstrate that the only meaningful predictor of the performance of the supply chain are on supply side risk and demand side risk.

Managing the supply chain risk is supposed to minimize or react proactively to hazards (Tomlin, 2019; Ghagde, Dani & Kalawsky, 2020). The conceptualization of risk management of the

supply chain involves resilience and vulnerability of the supply chain (Sorensen, 2017). The robustness of the supply chain is an important component of SCRM, according to Ponomarov and Holcomb (2017). Resilience of the supply chain means that firms can predict, detect, respond and learn from occurrences (Craighead et al., 2018; Sheffi, 2019). Christopher (2017) claimed that agile and rapidly changing resilient processes. The adaptive nature of capacity allows the supply chain to recover if disturbed, return to its previous condition or achieve a better desired state of operation of the supply chain. In Christopher's conception of a supply chain robust aspects, including a supply base strategy, collaborative planning, visibility and decision-making are included.

The supply chain vulnerability was described by Peck (2017) as exposure to major disturbances caused by hazards inside and outside the chain. Waters (2018) reports that the vulnerability represents a disruptive supply chain and is the result of risk. Juttner and Maklan (2019) have also described the susceptibility of the supply chain as an overweight risk sources and drivers, which leads to detrimental impacts on the chain and inhibits the ability to service the final consumer market efficiently. Thus, firms can lower the risk of interruption or increase the resiliency of the firm, i.e. their capacity to recover from an interferent (Sheffi, 2019). Supply chain risk management is therefore aimed at identifying possible risks sources and taking adequate measures to prevent or control the vulnerability of supply chain (Manuj & Mentzer, 2018a; Ghagde et al., 2019).

SCRM was described by Carter and Rogers (2018) as a capacity of a company to recognize and manage its economic, environmental and social risks within the supply chain. SCRM manages demand, supply and cost unpredictability, according to Kouvelis, Chambers and Wang (2019). Included in Wagner and Bode (2018) were five classifications of risk: demand; the supply side; legal and bureaucratic regulatory; structural; and catastrophic. While the first two types of risk sources address the internal supply-demand risk coordination within the supply chain, the last three focus on sources of risk outside the supply chain. The nine areas of risk, including disruptions, delays, systems, forecasts, intellectual property, procurement, claims, inventory and capacity, comprise Chopra and Sodhi (2020). However, based on literature consensus in favor of the lowest degree of complexity of a suppliers' chain, it has been recommended that a single firm, supplier and customer should use the same strategy in terms of risk management in the supply chain (Mentzer et al., 2001). (Ponomarov, 2019; Yang & Yang, 2019). Risks are more difficult to control for food manufacturing companies, as organizations confront tougher criteria (Samir & Aman, 2018).

1.1 Statement of the Problem

The food industry plays a specific part in creating economic opportunities since they are universal to human existence and health (Roth et al., 2018). Around 50% of the production turnover in the food sectors represents approximately 2, 8% of the GDP (TFDA, 2015). Despite this enormous impact, there are more safety fears, recollections and abnormalities in the food supply chain. As consumer worries grew, too, public emphasis on these issues increased. The supply chain risks lead to increasing capacity limits, higher operating or disrupting expenses, quality concerns, delivery delays or even natural catastrophes at the supplier end (Blackhurst, Scheibe & Johnson, 2018; Vaaland & Heide, 2018). Companies affected by the hazards of the supply chain saw inferior performance (Wilson 2018, Wagner & Bode, 2018). In addition,

supply chain risks may damage the financial performance of the company and reduce sales, utilization of assets and profitability (Hendricks & Singhal, 2017). Sturges in the supply chain lead to a 7% drop in sales, a 42% drop in operational revenue and a 35% decline in return on assets and notification of disruptions in the supply chain leads to a return of 7 to 8% for shareholders (Hendricks & Singhal, 2017).

Within Tanzania, the difficulties are diverse: short shelf life and perishability, import rivalry, increased consumer safety and health problems (RoK, 2014). The shortage of food items and the infrastructural problems represent a severe danger to food-producing companies. Secondly, consumer worries about issues relating to the environment and the welfare have put extra pressure on producers to guarantee that foodstuffs are produced safely and sensitively. The other difficulty is the sluggish rise in the entire food sector as Tanzania imports of items ready for consumers increase significantly (TFDA, 2015). It is expected that food and drink imports will continue to increase in value to over \$400 million during the following five years (World Bank, 2014). Local makers of food s are no longer the major supply source for customers. Many manufacturing companies in food have decommissioned to create enormous job losses and to hinder economic development (TFDA, 2015). The food and drink supply chain management system requires rapid, precise and intelligent decision-making in order to deal with the complex and dynamic competition and the unpredictability arising from outside needs and factors according to Samir and Aman (2018). To do this, there are numerous techniques for managing the supply chain risk (Tang & Musa, 2019).

Many study areas focus on diverse sectors, such as risk management in the retail and supply chain (Oke & Gopalakrishnan, 2017), entertainment industry (Johnson, 2001), computer businesses (Papadakis, 2019), consumer electronics (Sodhi & Lee, 2018) and supply chain in the aerospace sector (Sinha, Whitman & Malzahn, 2020). Although there have been many research projects in the domain of supply chain resilience, the effects of supply chain risk management techniques on supply chain performance in food production enterprises has been very rarely studied. It was, therefore, the purpose of this study to find out the effect of supply chain risk management strategies on performance of food manufacturing companies in Tanzania.

1.5 Research Objectives

The general objective of this study was to evaluate the effect of supply chain risk management strategies on the supply chain performance of food manufacturing companies in Tanzania. Specifically, the study sought:

- i. To examine the effect of supply chain risk flexibility strategies on performance of food manufacturing companies
- ii. To assess the effect of supply chain risk collaboration strategies on performance of food manufacturing companies
- iii. To find out the effect of supply chain risk control strategies on performance of food manufacturing companies
- iv. To examine the effect of supply chain risk avoidance strategies on performance of food manufacturing companies

2.0 Materials and Methodology

2.1 Theoretical Framework

Contingency Theory

The theory of contingency argues that a number of optimum decisions in a company depend (depend on external and external variables) that will lead to higher performance in order to match between the organizational structure and process. According to Kihyun (2019), the contingency theory contains two underpinning assumptions: first, there is no optimum manner of organizing the suitable form depending on the type of activity or surroundings which are to be dealt with. The capacity to develop and execute procedures that minimize the consequences of damaging occurrences depends on how well companies perceive and react to any type of unforeseen supply chain risk (Fawcett, Ogden, Magnan & Cooper, 2019; Volker, Grotsch & Schleper, 2020). In supply chain management research, the prospect of contingency theory was adopted (Kihyun, 2019; Buttermann, Germain, & Lyer, 2018; Volker et al., 2020). This study outlines three categories of risk and many adaptable solutions for risk management, including delay and contingency planning.

Relational Theory

Theoretical advantage and better performance are provided by Dyer and Singh (1998), which focuses on dyad and corporate networks as units of study. The theory suggests that the larger the investments of the partners, the higher the potential for relationship rent, is: inter-building knowledge sharing routines and relation-specific assets. Black Hurst states that Dunn and Craighead (2019) relativity skills, such as specified communication network, are positively linked to supply chain resilience via created supplier relationship management programmes and monitoring systems. In this research, the relational view is the basis to understand how superior relational competencies can improve supply chain risk management.

Learning Theory

The learning of individuals and organizations according to Deming (1986) is a process or loop containing individual aspects. The following items are provided by Deming (1986): Emotional observation-judgment-action. Koskinen (2019) states that individual, team, node and supply chain training can take place when individuals gain new information, behaviour, competences, values, preferences or understandings. Supply chain management learning can be. In this research, the learning theory is the basis to understand how supply chain risk control strategies on performance of food manufacturing companies

Theory of Constraints

Control theory (TOC) is the concept of management that Goldratt (1984) articulated in his book, the goal. It postulates that a system is an organization and each system has at least one limitation that prevents it from accomplishing its (more) money objective. These limitations must be identified (explained) and remedial actions made in order to improve system performance; (a prescription). The identification of limitations contributes to the system's concentration of limited resources towards the weakest section. There are three approaches to achieve the final objective: throughput (T), inventory (I) and operational costs (OE). In this research, the theory of constraints is the basis to understand how supply chain risk avoidance strategies on performance of food manufacturing companies.

2.2 Empirical Literature Review

Supply Chain Flexibility Strategies

Supply Chain Flexibility Strategies enables food producers to respond to unanticipated occurrences such as short delivery delays, unclear requirements and natural calamities. As Liu et al. (2018) report, companies that achieve more flexibility and agility outperform their less flexible rivals substantially. Innovative, dynamic and adaptable to changes and difficulties are flexible companies (Gligor & Holcomb, 2019; Tang & Tomlin, 2017). In relation to major industry rivals, flexibility has a beneficial influence upon its potential to improve comparative performance. Nembhard et al. (2017) stated that a fabricator might have the option to choose several suppliers, sites and market areas. For supply chains facing demand and supply concerns, flexibility is important, as flexibility permits a company to swiftly and efficiently reallocate resources in reaction to change. Dynamic characteristics like adaptability may be exploited to generate growth in turbulent and uncertain circumstances. Dynamic capabilities are described as the possibility of the company to address the issues systematically, because of its inclination to sensing possibilities and risks, to make timely decisions and adjust its resource base (Barreto, 2018).

Supply Chain Collaboration Strategies

Supply chain relationships are built on customer to supplier integration, coordination and cooperation across the supply chain (Swink, 2019). Chopra et al. (2018) states that the agreement on the integration of its resources for mutual advantages is an agreement between or between supply chain players. According to Musa, Wei and Tang (2019), companies need to build routines and practices leading to partnerships. Trust, openness and faith are the key foundations of a working partnership (Chopra et al., 2018). The supply chain is completely coordinated, according to Sodhi and Tang (2019), when all choices are in line with the common goal. A lack of coordination will lead to distortion of demand, a rise in production costs (bullwhip effect), stock costs, refueling times, transport cost, labor cost, efficiency decreases, profit, information distortions (Paik & Bagchi, 2018). Consequently, the collaborative supply chain is vital in decreasing supply chain risks (Tang, 2019). Arshinder and Deshmukh (2018) stated that information exchange between supply chain participants helps replace inventory and lead-time information, decreases supply chain costs, lowers requirement variability, increases reactivity and improves service levels. The association between collaboration and performance was positive (Breuer, Siestrup, Haasis & Wildebrand, 2020). Working with suppliers and clients to adapt to risk and redefine goods and processes provides companies with benefits by increasing information flux, reducing uncertainty, improving quality and increasing profits (Sheffi & Rice, 2017; Richie & Brindley, 2018).

Supply Chain Control Strategies

To supply chain risk management, it is vital to be able to learn from previous disruptions to generate a stronger preparation for future occurrences (Ponomarov & Holcomb, 2017). Leading firms thus give training to workers, suppliers and consumers to give network risks to raise awareness and to strengthen the need of resilient supply chains (Blackhurst et al., 2019; Schoenherr et al., 2014). In addition to learning (i.e. generation of knowledge) from prior experiments and the establishment of standard practices in the supplier chains, knowledge and understanding in both physical and information structures are significant factors in the management of the supply chain (Choi et al., 2019). Other important and less formal methods of

sharing and transferring knowledge are through reflective practice, cooperation, networking, stories, coaching, mentoring and quality circles (Sense, 2018; Samuel, Goury, Gunasekaran & Spalanzani, 2019).

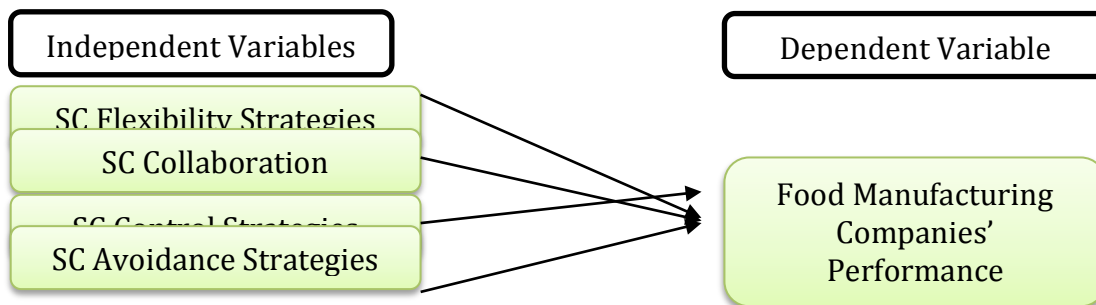
Supply Chain Avoidance Strategies

Risk avoidance is the most effective risk management method since every risk of loss is avoided by avoiding an activity (Khan & Burnes, 2018; Tuncel & Alpan, 2018). The Type1 and Type2 avoidance techniques (Manuj & Mentzer, 2018). Type 1 prevention approach is applied when the risks associated with working with with specific suppliers or consumers on a certain product or geographical market are judged unacceptable. Manuj and Mentzer (2018) indicated that avoidance might take the shape of a withdrawal from specialized assets, postponement of access to a market or sector or participation solely in low-incertitude markets. This sort of approach is aimed at driving overall probability connected with risk events by guaranteeing that there is no risk (Tang & Tomlin, 2018; Manuj & Mentzer, 2018). Managers are aware of supply and/or operational trade-offs linked to the choices to avoid or eliminate certain risks in order to prevent hazards (Ghadge et al., 2020). Type 2 evasive technique is used to prevent unwanted events (Manuj & Mentzer, 2018).

2.3 Conceptual Framework

The conceptual framework should analyze whether the objectives of the study have been addressed, according to Johnson and Christensen (2018). In this study, supply chain risk management impacts on food production enterprises' supply chain performance in Tanzania. the independent variables to be studied are: supply chain flexibility, supply chain collaboration, avoidance and control. Dependent variable is food manufacturing companies' performance. The study conceptualized a framework derived from reviewed literature as shown in Figure 1:

Figure 1: Conceptual Framework



Source: Researcher Own Construct from Theories and Empirical Literature review (2021)

2.3 Methodology

The survey was designed with a clear explanation. Explanatory study suggests that the research concerned seeks to explain the phenomena researched rather than just to describe them (Saunders, Lewis & Thornhill, 2017).

The study conducted a questionnaire for the collection of primary data - the analytical unit was the single business in Tanzania, comprising all of 187 food production enterprises in the Tanzania Food and Drug Authority (TFDA). Senior managers who were aware of supply chain

and logistical functions and direct participation in the strategic and operational decision-making were target responders. Due to their know-how, business responsibility and SC knowledge, such respondents were identified as critical organizational informants. This investigator obtained data through the census survey approach from 187 firms. The method of obtaining information from every member is a census survey (Saunders et al., 2017; Kothari, 2018).

This study employed the questionnaire for gathering data, including closed and open-ended questions. In order to identify supply chain risk management techniques a questionnaire was provided to the sample of food manufacturers and literature research was carried out. Data were analyzed using SPSS utilizing both descriptive and explorative methods.

3.0 Results and Discussion

165 of the 187 questionnaires administered were returned in full. This reflects a significant response rate of 87.3 percent, which was considered sufficient for further investigation (Saass, Schmitt, & Marsh, 2014). Based on the mean values, the five-point scale ranges are as follows: mean scores of less than 1.5 represents no extent; mean scores of 1.5 but less than 2.5 represents little extent; mean scores of 2.5 but less than 3.5 represents moderate extent; mean scores of 3.5 but less than 4.5 represents large extent; mean scores of 4.5 to 5 represents very large extent.

3.1 Influence of SC Flexibility Strategies on Performance of Food Manufacturing Companies

A review of the study parameters in table 1 showed that SC performance is influenced by the flexibility techniques. The highest average value was 3.56 for the stock of materials at the suitable sites (near custodians), 58% agreed, and 20% was neutrality, and 22% disagreed. The study showed that the average score for delayed final assembly activities was 3, 43, with the agreement of 22% and 27% strong agreement. The reorganization of production processes for customization effect performance was discovered, as this parameter had a mean score of 3, 42. 23% of the respondents highly agreed that SC practice influenced performance. 29% agreed. The study showed that process delays to client orders affect SC's performance. The average factor of 3.42 was 48%, while 28% disagreed. The factor was positive. In terms of the flexibility to meet client demands, the element earned a mean score of 3, 38. 29% of respondents agreed strongly, 21% agreed, while 31% disagreed. The findings of the research are in line with Gligor and Holcomb (2019), who discovered that companies with a greater level of flexibility and agility outperform their less flexible counterparts substantially. More inventive, more dynamic and sensitive to change and difficulties are flexible companies. Flexibility thus has a beneficial effect on the capacity of leading industry rival to increase comparative performance. This study concludes that supply chain risk flexibility strategies have positive influence on performance of food manufacturing companies.

Table 1: Flexibility Strategies Influence on Performance of FOOD Manufacturing

	SD	D	N	A	SA	Mean	SD
Delays final product assembly activities until the last possible position (or nearest to customers) in the supply chain	6	21	24	22	27	3.43	1.260

Stores items at appropriate distribution points close to the customers in the supply	4	19	20	33	24	3.56	1.155
Can re-arrange production processes so that customization can be carried out later	4.2	23.6	20.6	28.5	23	3.42	1.20
Delays final product assembly activities until customer orders have actually been received	6	22	24	22	27	3.42	1.250
Accommodate several customer service requirements	6	27	18	21	29	4.08	1.313
Composite Mean						3.58	

Source: Field Data 2021

3.2 Influence of SC Collaboration Strategies on Performance of Food Manufacturing Companies

The study revealed that food companies employ IT to decrease risk, hence enhancing performance. The highest average score was 3.65, with 60 percent agreeing but 25 percent disagreeing with that criteria. 55% of respondents agreed that 19% of respondents disagreed in a five-scale Likert with respect to information-exchange and performance rate. The survey also found that frequent and timely information sharing has an enormous impact on SC's performance, 33 percent agreed strongly that 26 percent agreed to the same the average score of the parameter was 3.64. SC partners collaborate with SC, as 24% of respondents agree highly with 33% agreeing on SC's performance. But 15 percent disagreed, and 4 percent disagreed strongly. SC partners have a mean score of 3.64 in terms of their participation in the creation and marketing of performance. 30% agreed strongly that 30% agreed that 13% disagreed and that 6% were strongly disagreed, as seen in Table 2. Those findings confirm Wieland and Wallenburg (2019) in their assessment of the favorable effects on SC resilience of communication and collaboration ties. Increased resilience, achieved by investing in agility and robustness, also improves the value of the supply chain. Similarly, Srinivasan et al. (2019) noted that creating trust in relationships helps to reduce the risks associated with the supply chain. Therefore, SC collaborative risk management techniques and food manufacturing company performance have a favorable link.

Table 2: SC Collaboration Strategies Influence on Performance of FOOD Manufacturing Firm

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
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Exchange of information that helps in the reducing supply chain risks	7	12	26	29	26	3.53	1.202
Frequent and timely exchange of information about events or changes that may affect business	6	15	24	33	24	3.64	1.249
Collaboration with supply chain partners	4	15	24	33	24	3.08	1.138
Involvement of supply chain partners in the new product design development effort and marketing	6	13	22	30	30	3.04	1.204
Information technology is used to reduce supply chain Risks	9	16	15	22	38	3.05	1.365
Composite Mean						3.27	

Source: Field Data 2021

3.3 Effect of supply chain Control Strategies on Performance

The study sought to establish whether supply chain control strategies influence performance. The highest average score of 3,45 was on the indication for holding buffers, as 23% strongly agreed with the technique, and 29% agreed with it. However, 21% (21%) of the respondents did not agree while 4% strongly opposed the SC practice. The study showed that the performance of food-processing companies is influenced by the additional strategic inventory. The mean score was 3.43. The indication. 55% (55%) of those interrogated agreed with the opinions that just 26% disagreed with them. When asked whether the underused ability to supply a coil affects the performance of SC, 28% agreed strongly and 26% agreed, whereas 21% disagreed with 8% disagreeing severely as seen in Table 3. Table 3. The study examined whether companies employed improved strategies for forecasting to impact the performance of SC. By 3.45%, 28% of respondents were highly in agreement with 22%. However, 16 percent disagreed with the practice, whereas 9 percent disagreed. The lowest level of danger SC monitoring systems has been (mean=3.38). 20% (20%) agreed strongly that the practice has an impact on performance, as 29 percent agreed. 21% (21%) of interviewees disagreed with the practice and 5% strongly objected. The conclusions of this research are consistent with the findings of Lockaby (2014), where enterprises use diverse tactics and philosophies to control stock inventory and to remove wastes. This study concludes that supply chain risk control strategies have positive influence on performance of food manufacturing firm.

Table 3: SC Control Strategies Influence on Performance of Food Manufacturing Companies

	Strongly Disagr	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
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	ee						
Holding of buffer stock to mitigate the risk of stock-out	4	21	23	29	23	3.45	1.176
Keeping extra inventory of strategic items (e.g. raw materials parts, and finished goods)	9	17	19	32	23	3.43	1.265
Holding of underutilized capacity which serves as a cushion to any disruptions	8	21	18	26	28	3.45	1.304
Using improved forecasting techniques to reduce risks associated with supply chain	9	16	26	22	28	3.45	1.280
Regular monitoring of supply chain risks (demand, supply process and environmental risks)	5	21	26	29	20	4.38	1.165
Composite Mean						3.63	

Source: Field Data 2021

3.4 Effect of supply chain Avoidance Strategies on Performance of Food Manufacturing Companies.

The analysis Table 4 shows that SC avoidance strategies influence performance. The indicator of avoiding certain geographical markets deemed risky had a mean score of 3.50 as 33 percent of the respondents strongly agreed and 21 percent agreed with the practice. Twenty one percent (21 percent) of the respondents however disagreed while 7 percent strongly disagreed with the SC practice. The study also shows that the performance of food manufacturing companies is affected if a supplier is not to reduce the risk. The mean score of the indicator was 3.45. Twenty 5% (25%) of respondents agreed strongly and 30% agreed on the same. 10% (10%) disagreed greatly whereas 16% disagreed on the fact. Then, respondents were asked whether it affected SC performance by deferring access to some markets to reduce risks, 29% of respondents agreed strongly and 30% agreed, while 19% objected, with 6% disagreeing very firmly with the plan. The interviewees were asked whether SC performance was supported by the audit of the company processes and of their suppliers. 29% of respondents agreed strongly on a medium of 3, 50 and 23% agreed. However, 19% disagreed with the plan and 6% disagreed severely with it. The highest average score was 3, 86 for the application of information technology to mitigate hazards. 44% agree strongly that the strategy has an impact on performance, 24% agreed strongly. Seventeen percent (16%) disagreed with this behavior, while 6% strongly disagreed with it. The findings of the study coincide with those of Christopher and Hellweg in 2019, who discovered that supply chains working in all kinds of contexts seek to reduce risks within acceptable return limits, such as income and profits. This leads to greater SC performance with

avoidance methods. This study concludes that SC risk avoidance strategies have positive relationship with performance of food manufacturing companies.

Table 4: Avoidance Strategies Influence on Performance of Food Manufacturing Companies

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Avoids geographical markets deemed risky	7	21	18	21	33	3.50	1.333
voids some suppliers in order to minimize supply chain risks	10	16	19	30	25	3.45	1.285
Delays getting into certain markets until the uncertainty is reduced	6	19	16	30	29	3.58	1.125
Audits both our processes and supplier processes to minimize quality risks	6	19	23	23	29	3.50	1.257
Information technology is used to reduce supply chain risks	6	16	10	24	44	4.86	1.287
Composite Mean						1.257	

Source: Field Data 2021

4.0 Conclusions and recommendations

4.1 Conclusions

The general objective of the study was to evaluate effect of supply chain risk management strategies on performance of food manufacturing companies in Tanzania. The results of the route analysis suggest that SC avoidance strategies are the main SCRM methods in terms of food production performance (Composite Mean = 3.78). Based on the results of the route analysis. SC control strategies (Composite Mean = 3, 63) followed by SC flexibility strategies (Composite Mean = 3, 58) are the second most important SCRM methods for the success of a food manufacturing company. Collaboration techniques in the supply chain have the least impact on food production companies (Composite Mean =3.27). Finally, food producers must progress their supply networks outside conventional supply networks in a changing and demanding environment. SC operations may rapidly degrade and put quality, profitability and life in jeopardy without a deliberate emphasis on supply chain risk management. From the management perspective, all supply chain interruptions that effect corporate performance and continuity in companies need to be understood and actively managed. Companies need to understand how important their SC resilience capability is amid interruptions in the supply chain. In order to

secure company continuity it is required to employ supply chain risk management techniques such as evasion, control, adaptability, and streamlining of supplies and cooperation.

4.2 Recommendations

Based on the research findings, the study recommends the following;

- i. SC Flexibility Strategies

Food manufacturing companies in Tanzania also need to modify their supply chains to respond to business variables such as changes to important markets, technological changes and socio-political changes. The characteristics of flexibility include frequently agility, contingency preparation and innovation. In particular, a manufacturing business is able to choose various suppliers, hold materials at suitable locations, rearrange customizable production processes, accommodate client needs, postpone proceedings until client orders have been received, and postpone the final assembly activities. These features improve the company's capacity to respond effectively to SC risks and minimize negative consequences for the overall operation of the supply chain.

- ii. SC Collaboration Strategies

Risk management Supply Chain Strategies are very important to food manufacturers. The study proposes that food firms establish collaborative interactions with suppliers in order to mitigate and prevent the occurrence of supply chains risks. From the practical standpoint. Looking at the tactics of the manufacturing business, many people try to optimize their relations with the various trade partners in an attempt to enhance supply chain operations and eventually raise customer satisfaction. Naturally the wish to collaborate leads to improved coordination of the supply chain. The underlying principle behind the partnership is that a firm cannot compete successfully on its own in this competitive market. Companies effectively adopting such strategies across the organization increase quality and minimize waste. This reduces expenses, increases profit and/or sales, and satisfies consumer expectations. Collaborative relationships need long-term trust and exchange of information between companies, risk-sharing and shared investment commitments. This technique will assist flexibility improvements and hence improve the performance of the supply chain.

- iii. SC Control Strategies

Companies must be learning organizations, in order to enhance SC performance. Continuous analysis and improvement of SC, precise forecasting of demand, quality controls, standard operating procedures and changes in implementation lead to performance of SC. If new difficulties are not monitored, controlled and addressed, the damage to food supply networks might be disastrous. Control Strategies attempt to test capacity, reduce time for process completion, increase employee awareness and understanding about the risk management strategy and incorporate lessons gained from past tests and occurrences. Ideally, food manufacturing companies should have established SC risk management processes.

- iv. SC Avoidance Strategies

The findings of this research indicate that avoidance techniques such as postponing market entry and complete avoidance are essential to SC skills of the company. Moreover, companies are not free from risks of the supply chain, but combined with good avoidance strategy, the correct competencies may lead to successful SC.

4.3 Suggested Areas for Further Study

This study presents various questions which could be of scholars' interest. This study was restricted to Tanzanian food manufacturers. Similar studies in various nations and in the automotive, electronics, textile and service industries may be considered by future researchers. These are cost, time, turbulence and competitiveness-sensitive. Research on disparities in SC resilience, corporate abilities and business success within and across societies and cultures would yield fascinating research. The skills and specific tactics required to achieve corporate supply chain resilience and its influence on financial performance may also be studied. The influence of risk sensitizing culture, the organizational structure (centered and decentralized, standardized and customized SC) on corporate performance may also be identified by the researchers. The culture and structure of the organization are key determinants of SC resilience and strength.

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SESSION 4: PARALLEL SESSION

1330-1530/WEDNESDAY 15TH SEPT 2021

SESSION 4

A2 Finance, Economics and Corporate governance

Venue A

B2 Supply Chain, Marketing and Entrepreneurship

Venue B

C2 Contemporary Management

Venue C

SESSION4 [A2]

1330-1500/Wednesday, September 15th 2021, Meeting Room A
Economics, Corporate governance
Session Chair: Salama Yusuf, Zanzibar University

Moza Omar, Ali Mwidini, Salma Yusuf

Taxation and Economic Development Of Zanzibar

Abstract

The purpose of this paper was to examine the relationship between tax collection and economic development in Zanzibar using the annual time series secondary data from the period 1990–2019. The study employed the Dynamic Ordinary Least Square (DOLS) to achieve the intended purpose. The estimation result showed that the entire three variables that were chosen as the proxy of taxation namely; VAT, CIT and CED had positive significant relationship with the economic development. The results also showed that there is existence of a bidirectional causality relationship between CED and economic development at 5% level of significance also bidirectional relationship between labour forces and capital formation with economic development at 5% level of significant. In addition, the results revealed unidirectional causality relationship from both VAT and CIT to economic development. The study then recommends among others, that the government of Zanzibar should re-visit and review some custom and excise tax laws and regulations that are repugnant to the performance of the custom and excise tax system, so as to block and discourage the loopholes that are being exploited by taxpayers to either evade or avoid tax payments.

Keywords: *Dynamic Ordinary Least Square, Zanzibar, Tax*

1. INTRODUCTION

Trade policy reforms in developing countries typically include tariff reforms that aim to Taxes are raised by the government to generate revenue used to provide services to the public such as; financial services, telecommunication services, defensive services, health centers, roads services, schools and electricity services and so on. It is recently however has been reported that, revenue derived from taxes has been very low and no physical development actually take place. Zanzibar economy has been experiencing promising growth. According to the Statistic report issued by NBS of 2020, the Island five years (2015-2019) average economic growth was 6.58 per cent with a fluctuating growth rate of 6.2 per cent, in 2015, 5.8 per cent in 2016, 7.7 per cent in 2017, 7.1 per cent in 2018, 7 per cent in 2019, keeping a stable growth rate in comparison to the previous year. Since 2014, the semi-autonomous region of Tanzania registered minimal fluctuations in the GDP. A growth peak of 7.7 percent was measured in 2017 (National Bureau of Statistics, 2019). It is to be noted that this economic performance is accomplished with many structural reforms, remarkably in economic governance, business climate, the war against corruption, internal and external resource mobilization for the financing of development projects.

However, the National budget speech (2020) revealed that Zanzibar's GDP is projected to slightly decline to 2.5% in the financial year ending 30 June 2021 compared to 7.0% growth recorded in 2019/2020. The decline is attributed to among other things, Covid-19 pandemic. Importantly, this variability is associated with a number of factors to include government revenue and expenditure, which need to be understood. It is a well-known fact that taxes provides most of the government's revenue. But surprisingly, there is always up and down movement where tax revenues tends to increase and decrease in respect to each quarter reported by authorities. Zanzibar Revenue Board reports revealed that Zanzibar is experiencing an unpredictable trend in revenue collected. While some categories of tax revenue like VAT revealed a continuous growth, others like exercise duty face up and down movement on the collection trends (See ZRB collection trend 2000/2020). This not only provides a confusing trend, it provides a room to understand what is going on and research to examine how significant these tax revenue from different aspects they are to the island economic development. Again, tax revenue deployment as a source of funding developmental events in developing nations has been a difficult issue due to a number of resistance, like evasion, corrupt avoidance practices attending to it (Olaoye et al., 2019)

Prominently, existing literature provide contradicting results on how significant is tax revenue on economic growth of the nation (see Ferede and Dahlby, 2019; Gabriel and Ezekiel, 2019; Kalaš et al., 2018). Therefore, more studies to explore the situation under different contexts are required to understand this situation that will not only add to the existing literature debate but also provide a pathway for Zanzibar economist while planning for their economic development and revenue direction of the country. Hence, the study in hand examines the effects of tax collection and economic development of Zanzibar which to the best of the author, little is known on this aspect under the study context. The concept lacks comprehensive studies examining the nexus between tax collection and economic growth of the place in study. Again, this becomes a case as there is inconclusively debate regarding existing relationship between tax collection and economic growth where this conclusion differ and depend on the countries, methodology and adopted variables (Sawadogo, 2019). The layout of the rest of the paper is as follows: Section 2 provides a brief review of the existing literature on the relationship between tax collection and economic development. Section 3 introduces the methodology and estimation techniques employed in this paper. Section 4 presents the findings and its discussions and finally in section 5 the authors present the conclusion and recommendations with respect to findings.

2. LITERATURE REVIEW

Taxation increases incentives for public participation in the political process and creates pressure for more accountability, better governance, and improved efficiency of government spending. Taxation also creates incentives for governments to upgrade their institutions for tax collection and administration and to provide more public services (Moore, 2007). Below are some of the studies showing the relationship of tax economic development nexus.

Ferede and Dahlby (2019) provides an empirical estimation of the effects of provincial corporate tax rates on economic growth using annual panel data from Canadian provinces over the period 1981-2016. Their empirical approach enables us to investigate the long-run relationship between provincial tax rates and economic growth by allowing short-run dynamics to vary across

provinces. They found that a reduction in the provincial CIT rate has a statistically significant positive effect on economic growth rate. Based on their preferred specification of the econometric model, a one percentage-point reduction in a provincial government's statutory CIT rate increases the growth rate by 0.12 percentage points four years after the initial CIT rate cut and increases real per capita GDP by 1.2 per cent in the long run. The results are robust to various sensitivity checks.

Olaoye *et al.* (2019) examined the nexus between the tax revenue and the economic development of Nigeria. Concurring to previous research findings, this study found that tax revenue motivates economic growth by improving the infrastructural. The study also reveals non independent impact of tax revenue on growth through infrastructural development and foreign direct investment, but just allowing the infrastructural development and foreign direct investment to positively respond to increase in output. For effective impact of tax, study recommendations posed that government must insure proper fiscal policy and legislation in existence.

The study conducted by Cyril (2019) on the causal and long run nexus between value added tax and economic growth of Nigeria (1994-2017). Ex-post factor research design was adopted while the Vector Autoregressive method of pairwise Granger Causality Test and Vector Error Correlation Mechanism were employed in this study and provides the following findings. There is a significant short run and long run influence of revenue and VAT on GDP of Nigeria. Also another finding revealed that growth in GDP drives VAT and revenue growth in Nigeria economy. If more goods and services are taxed will increase the revenue of the country. It was concluded that, the monoprodukt economy of Nigeria should be diversified along the line of taxation since there exist a directional relationship between taxation and economic growth in Nigeria. Individual and institutes should pay up their taxes while revenue that has been generated from these taxes should be appropriately utilized for the goods and services as well as for the growth of economy.

Sadiku *et al.* (2018) examined how changes of income tax affect the economic growth of Western Balkan countries. For analyzing this issue, panel econometric models were employed using yearly data for the time period 2005-2016. The estimation results reveal that the personal income tax has positive and significant impact on growth. While corporate tax has negative impact on growth in almost all models, but the coefficient is statistically insignificant. This implies that the current corporate tax rates couldn't endow with sustainable economic growth in the sample countries.

Okwara and Amori (2017) analyze impact of tax revenue on economic growth at Nigeria around period of 1994 to 2015 using OLS regression analysis with the assistance of statistical software for social science SPSS and the result provided that tax revenue has a direct significant impact on economic development. Similarly, Ojong, Anthony, and Arikpo (2016) observe the relationship between tax revenue and economic growth that covered the period of 1993 to 2012 in Nigeria, data were collected from the CBSB and completely through desk survey method and ordinary least squares multiple regression model were used to establish the correlation between dependent and independent variables and the result indicate that there are significant relations between tax revenue and economic growth.

Nkhalamo and Sheefeni (2017) inspected the relationship between tax and economic growth in Namibia. Using quarterly data study finding revealed that there is no long run relationship exists between tax and economic growth in Namibia. Again, results intended to analyse short run outcome of the independent variable and revealed that an immediate negative effect of tax exists on economic growth resulting from shocks in tax and more importantly the forecast error variance decomposition exposed that tax is accountable for moderate variation in economic growth of the country.

Riba (2017) test the existing relationship between tax and economic growth under South African context in both aggregate and type levels of tax revenue. Study findings of the causation support existing relationship between aggregate tax and economic growth. Also, study analysis revealed existence of relationship between individual types of taxation such as Value Added tax, Corporate income tax, and personal income tax analysis provide support for the demand-following hypothesis of economic growth stimulating changes in aggregate taxes, Hence, it was suggested that a positive relationship is there between taxes and growth, where increases in VAT lead to increases in growth and increases in PIT and CIT are stimulated by economic growth

Lyndon and Paymaster (2016) tested the impression of companies’ income tax, value-added tax on economic growth (proxy by gross domestic product) in Nigeria. Secondary time series panel data were compiled to cover period 2005 -2014 from the Statistical Bulletin of the Central Bank of Nigeria (CBN). The study applied Ordinary Least Squares technique combined with on the computer software Windows of statistical package for social science (SPSS) to analysis of information, where GDP, the dependent variable and proxy for economic development, was reverted as a part of company income tax (CIT) and value-added tax (VAT) that is independents variables. The outcome of the analysis demonstrated that both company income tax and value-added tax have significantly positive impression on economic development.

Babatunde, Ibukun, and Oyeyemi (2016) showed mixed impacts of taxation on economic growth in Africa from 2004 to 2013. The study conceded out various preliminary tests, that are descriptive statistics, and stationary tests using Augmented Dickey-Fuller (ADF) test. The resolution concluded that the tax revenue has a significant positive relationship with Gross Domestic Product. On the other hand Ofoegbu, Akwu, and Oliver (2016) analyze the outcome of tax revenue to the economic development that applied in Nigeria. The approach adopted a time series data that cover period from 2005 to 2014. Used secondary data and OLS regression technique to find a result and the Findings show helpful and significant relations between tax receipts and economic growth.

3. METHODOLOGY

3.1 Model Specification

To examine the effect of taxation on economic development in Zanzibar, the structural form of the model based on time series approach, specified as follows, as applied by majority of past empirical studies:

$$GDP_p = f(CIT, VAT, CED) \dots\dots\dots 1$$

The model of estimation then developed by using the simple production function of Cobb-Douglas to accommodate the inclusion of growth theory as:

$$Y_t = A_t K_t^{\beta_1} L_t^{\beta_2} Y_{it} = A_{it} K_{it}^{\beta_1} L_{it}^{\beta_2} \dots \dots \dots 2$$

By applying the logarithm in the equation 2, then we get the following:

$$\log Y_t = \log A_t + \beta_1 \log K_t + \beta_2 \log L_t \log Y_{it} = \log A_{it} + \beta_1 \log K_{it} + \beta_2 \log L_{it} \dots \dots \dots 3$$

While $\log A_t$ are the other factors that promote economic growth and assumed to have a linear relationship with growth.

$$\log A_{it} = \beta_0 + \beta_3 \log TO_{it} + \beta_4 \log FDI_{it} + \varepsilon_{it} \quad \log A_t = \beta_0 + \beta_3 \log CIT_t + \beta_4 \log VAT_t + \beta_5 \log CED_t + \varepsilon_t \dots \dots \dots 4$$

Therefore, the general model used in this study is:

$$\log Y_t = \beta_0 + \beta_1 \log K_t + \beta_2 \log L_t + \beta_3 \log CIT_t + \beta_4 \log VAT_t + \beta_5 \log CED_t + \varepsilon_t \log Y_{it} = \beta_0 + \beta_1 \log K_{it} + \beta_2 \log L_{it} + \beta_3 \log TO_{it} + \beta_4 \log FDI_{it} + \beta_5 \log GE_{it} + \varepsilon_t \dots \dots \dots 5$$

Whereby the parameter $\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 explain the coefficient values of independent variables, β_0 shows the constant term and ε_t is the stochastic error term which explain other factors that influence the economy but are not included in the model and is assumed to fulfill all the assumptions of classical linear regression model, and $t = 1, 2, \dots$ is the time index for the years from 1990 to 2019. Y represents economic development measured by real GDP per capita, K represents gross capital formation, L represents labour forces in an economy, CIT is Corporate Income Tax, CED is Custom and Excise Duty, VAT is Value Added Tax.

3.2 Estimation Technique

The technique provides the details about the empirical strategy that was used to achieve the intended goal of the study. Since the study involved the analysis of time series data, the time series econometric methodology was applied. The descriptions of the unit root test, cointegration test and DOLS are given below.

3.3.1 Unit Root Test

Due to macroeconomic data to have the feature of random walk (Nelson & Plosser, 1982), the unit root problem for each individual series was checked to avoid the spurious results. The ADF test developed by Dickey & Fuller (1981) was used with the assumption (null hypothesis) that each individual series has unit root problem. ADF test always assumes of rejecting the null hypothesis of a unit root. The hypotheses of unit root are:

Null hypothesis

$$H_0: \phi = 0 : \text{ There is a unit root problem (non-stationary data)}$$

Alternative hypothesis

$$H_1: \phi < 1 : \text{ There is no unit root problem (stationary data)}$$

The test is conducted for the coefficient of the lagged dependent variables from the following equation:

$$\Delta Y_t = Y_t - Y_{t-1} = \phi Y_{t-1} + \mu_t \text{ The first difference of time series data } Y_t$$

3.3.2 Co-integration test

Many econometricians realized that, Johansen and Juselius maximum likelihood method has little possibility of making errors since it involve only one step in its process unlike two steps in the Engle Granger method. Considering the regression model Y_t with five variables, the co-integration test was done by using the null hypothesis as follow;

$$Y_t = \theta + \sum_{i=1}^{T-1} w_i Y_{t-i} + \pi Y_{T-t} + \varepsilon_t$$

Whereby, θ is a constant, w as coefficient matrix and π is the number of independent co-integrating vectors, if ($\pi = 0$) means no co-integration between series of variables used. According to Johansen & Juselius (1990), if one series co-integrates this means that error in the regression model is stationary although the dependent and independents variables are non-stationary it is concluded the existence of long run relationship.

3.3.3 Dynamic Ordinary Least Square (DOLS)

From that case, the study use the most appropriate methods developed by Stock and Watson (1993) which is dynamic ordinary least square (DOLS). This method favored compared to Static OLS and Johansen and Juselius approach due to the following reasons. Firstly, it is more robust and appropriate for small sample size which implies more efficient and unbiased estimates (Singh, 2010; Majeed, 2007; Masih and Masih, 1996). Secondly, the method is more appropriate in case there endogenous relationship among the variables as in our case. On top of that, it is more appropriate in case, there will be any serial correlations even of higher order (i.e. more than 1) (Singh, 2010; Majeed, 2007; Masih and Masih, 1996). Furthermore, endogeneity (simultaneity), autocorrelation, and small sample bias is tackled by including the lead and lag of first difference, for the explanatory regressors. It is appropriate, even for the variables co integrated or integrated at different order i.e. I (0) and I (1) (Majeed, 2007; Masih and Masih, 1996). Since the data set is less than 30 observations, it is advantages to apply DOLS instead of Johansen Cointegration. Therefore, this study applied the DOLS estimator to estimate the long-run relationships among subsets of variables. DOLS equations can be express as follows:

$$LDGP_t = \alpha + \beta_1 LL_t + \beta_2 LK_t + \beta_3 LCIT_t + \beta_4 LVAT_t + \beta_5 LCED_t + \sum_{j=-q}^p \phi_{ij} \Delta L_t + \sum_{j=-q}^p \delta_{ij} \Delta K_t + \sum_{j=-q}^p \omega_{ij} \Delta CIT_t + \sum_{j=-q}^p \varphi_{ij} \Delta VAT_t + \sum_{j=-q}^p \delta_{ij} \Delta CED_t + \varepsilon_t$$

Where p and q are the number of lags and leads respectively. The use of lag and lead is to capture serial correlation and endogeneity of the regresses that could result in unbiased estimation. With DOLS, even if the variables are cointegrated and have the problem of endogeneity, the results obtained would still be unbiased. In addition, the approach does not need the use of instrumental variables nor exogeneity assumptions and give robust results when variables which are not cointegrated are omitted.

4. RESULTS AND DISCUSSION

4.1 Unit Root test (Stationarity Test)

The existence of unit root is checked by using Augmented Dickey Fuller test (ADF) at both levels and first differences. The results from the unit root test are presented in Table 4.1 Both tests (Level and First difference) were done by comparing the t - statistics calculated and Mackinnon critical values at 5% level of significance. The results of the estimated ADF test with its accompanying p -values showed that the null hypothesis of unit root test was rejected in first

differences for all the series at the 5% level of significance. However, for the series levels, the researcher failed to reject the null hypothesis of unit root for all of the variables at the 5% level of significance. This implies that the researcher's series are well characterized as $I(1)$ as all variables of the study achieved stationarity after first differencing. Then, the Johansen- Juselius co-integration test was done to test the long run equilibrium relationship between the variables.

Table 4.1: Augmented Dickey-Fuller (ADF) Test

Variable	At Level		Decision	At 1 st difference		Decision
	t-statistics	P-value		t-statistics	P-value	
LGDPp	-0.9853	0.7266	Non Stationary	-6.9514**	0.0000	Stationary
LCED	0.3122	0.6526	Non Stationary	-6.3584**	0.0000	Stationary
LCIT	0.2755	0.5433	Non Stationary	-5.8800**	0.0000	Stationary
LVAT	-0.2560	0.1900	Non Stationary	-3.3152**	0.0015	Stationary
LL	-4.1008	0.1156	Non Stationary	-2.4332	0.0001	Stationary
LK	-0.9062	0.7633	Non Stationary	-5.9656	0.0001	Stationary

*, ** and *** indicate that co-efficient is significantly different from zero at 10%, 5% and 1% probability level respectively. Author computation from collected Data (2020).

4.2 Co integration Analysis: Johansen Co integration test

The study applied Johansen's maximum likelihood estimation after detecting that all series are $I(1)$ to test for cointegration. The test has been done in order to check the existence of long run relationship among the non-stationary variables. The co-integration estimate was carried out using the Johansen (1991) cointegration technique and this is a powerful cointegration test, particularly when multivariate model is used. Johansen test usually involves two tests namely "Trace statistics" and "Maximum Eigen value". From the results of cointegration, it was observed that the null hypothesis of no cointegration was rejected by both the trace statistics and the maximum Eigen-value statistics. The statistical values of these tests were greater than their critical values. So, it rejects the null hypothesis at one and at most 1 see Table 4.2 and 4.3.

Table 4.2 Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Trace Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.781250	70.87281	47.84417	0.0001
At most 1 *	0.595050	38.86290	29.77808	0.0045
At most 2	0.381170	13.55540	15.49561	0.0970
At most 3	0.001090	0.049040	3.841346	0.8111

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

Table 4.3 Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.682070	31.97789	27.57525	0.0560
At most 1 *	0.591418	25.34001	21.12278	0.0444
At most 2	0.382010	13.47766	14.26080	0.0970
At most 3	0.002081	0.057015	3.851357	0.9076

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

4.3 Regression results on tariffs and economic growth

From Table 4.4 presents the results on effects of tax collection on economic development of Zanzibar based on DOLS estimator. The estimation requires the inclusion of leads and lags in order to avoid the autocorrelation problem and to capture the endogeneity of the independent variables. Therefore, the estimation used set of the lags and leads, by using one year lags and one-year lead DOLS in order to get the robust results. The estimated result shows that there is a positive relationship between tax collection and economic growth for the Zanzibar. This implies that tax collection contribute positively to economic development of Zanzibar.

Table 4.4: Results of Regression Analysis for objective one

Variable	Coefficients	Robust errors	Std. t-ratio	p-value
C	7.085	2.555	3.011	0.007
LogCIT	0.145	0.075	3.274	0.006**
LogCED	0.209	0.057	2.435	0.035**
LogVATF	0.195	0.867	7.705	0.000**
LogK	0.392	0.284	5.085	0.003**
LogL	0.487	0.067	5.197	0.001**
R-squared	0.827			
Adjusted R-squared	0.732			
S.E. of regression	0.895			
F-statistic)	214.3			
Prob (F-statistic)	0.000			
Durbin Watson	1.658			

According to regression findings as presented in Table 4.4, the adjusted R squared from the estimated equation (3) is 0.732, indicating a strong effect of taxaion on the level of GDP per capita of Zanzibar. This means that the chosen model explains 73.2% of the variations in the

Taxation - growth nexus. And only 26.8% of the variations are unexplained by the model of this study. Thus, it is concluded that the model of this study is a good one because it explains most of the explanatory variables. Moreover, the result indicates a Durbin Watson of 1.658 that meet requirement of Rule of thumb. A rule of thumb shows that normal value should range from 1.5 to 2.5. Therefore, since in the case of this study the value of Durbin Watson is 1.658, serial correlation is not of in the concern. Below are the detailed discussions of the effects Taxation on economic development of Zanzibar as estimated regression result has revealed.

4.3.1 Custom and excise duty

The results shows that one unit increase in custom and excise duty (CED), leads to an increase in GDP per capita by 0.209 units, *ceteris paribus*. This implies that custom and excise duty affects economic development of Zanzibar. The revenue collected from it if used wisely by the government of Zanzibar it can leads to the economic development of Zanzibar. The result was consistent with that of Oladipupo and Ibadin (2015) who examined the impact of indirect taxes on economic growth of Nigeria and found a positive significant between CED and economic growth and Owino (2019) who found the same in Kenya.

This logical finding can be explained by the fact that customs duty increases the revenue base of government and make funds available for development purposes that will accelerate economic growth. Secondly, it is discovered that customs duty has more impact on economic development than Income Tax and Value Added Tax. The reason for this revelation could be attributed to the high rate of imports in the country. As imports increase, the duties on imports will continue to experience growth, and ultimately increase output. This outcome is in tandem with the result of studies carried out by Okafor (2012), Gacanja (2013), Chibu and Njoku (2015), among others, all of whom reported positive and significant relationship between customs duty and economic growth. However, this finding is inconsistent with the findings of Sameti and Rafie (2010), Ebiringa and Emeh (2012) who opined that customs duty has a significant negative effect on economic growth. The positive and significant relation between customs duty and GDP indicates that policy measures to expand customs revenue through more effective custom administration will impact positively in growing the economy. These results run contrary to the view that higher custom tariffs are universally detrimental for economic development. This is important from a policy perspective, since it indicates that the maintenance of high tariff barriers does not appear to be a leading culprit for the economic stagnation suffered by Zanzibar and other developing countries in the world.

4.3.2 Corporate Income Tax

From the estimated regression equation above, it indicates that when other things remain constant a one unit increase in CIT, score is associated with an increase in GDP per capita by 0.145 units. The coefficient is statistically significant at 5% level of significant. This implies that corporate income tax is a true determinant of economic development in Zanzibar. Theoretical justifications confirm that corporate income tax rates harm economic development, but hardly has any opposing argument been anything close to these justifications. However, the empirical findings in this research do not back claims that taxes do harm economic development; the study backed the argument that CIT is good for economic development. And this result is consistent with the results of Ferede and Dahlby (2019) who found a positive significant relationship between CIT and economic development in Canada. But the result went against Sadiku et al (2018) who found that corporate tax has negative insignificant impact on growth in almost all

models. This implies that the current corporate tax rates could not endow with sustainable economic growth.

4.3.3 Value Added Tax

Furthermore value added tax showed apposite significant relationship with GDP per capita of Zanzibar with the coefficient of 0.195. This implies that one unit increase in value added tax (VAT) is associated with an increase of GDP per capita by 0.195 units, *ceteris paribus*. This means VAT is also a true determinant of economic development, the revenue collected from VAT if used wisely would bring to the development of the economy of Zanzibar. This result is consistent with Lyndon and Paymaster (2016) who found that value-added tax has significantly positive impression on economic development in Nigeria. The purpose of VAT is to raise revenue to finance government spending like any other tax. VAT is a consumption tax, raising revenue from consumers spending. It is considered to have more advantage over other forms of sales tax because it is harder to avoid; VAT is levied at every step of the supply chain but can be claimed back by businesses against the VAT that they charge.

The empirical results of the estimated model show that the probability value of F- statistics (0.000) is less than the 5 per cent critical level. Therefore the study accept the alternative hypothesis that the explanatory variables which includes, Customs and Excise Duty (CED), corporate income tax (CIT), and Value Added Tax (VAT) are effective determinant factors of the economic development (GDPp). As a result the model was perfectly specified and there is statistical evidence to show that customs and excise duty, income tax and value added tax can jointly influence economic development.

4.3.4 Labour forces

Similarly increasing in labor by one unit leads economy of Zanzibar to increase by 0,487, therefore, labor makes a positive impact on economic development. This follows the arguments and empirical evidences of Barro (1998). Human capital can be thought of as affecting economic development in the sense that workers with higher levels of education or skills should, *ceteris paribus*, be more productive, inventive, and innovative. Higher levels of human capital may also encourage capital accumulation or may even raise the rate of technological catch-up for follower countries (Temple, 2001).

4.3.5 Gross capital formation

From the estimated regression equation above shows that capital formation is positive related to economic development of Zanzibar. A positive coefficient of capital formation indicate that when everything else is kept constant one unit increase in capital formation leads to economy to increase by 0.392. This suggests that gross fixed capital formation of industry has a vital role in supporting the industrial production in Zanzibar through a good supporting of the industrial production with machines, spare parts semi-finished products and raw materials that can be used to improve and increase industrial outputs in the country. The result went against with the finding of Mohsen (2015), but agrees with growth theory that assumes saving leads capital formation that enhance economic growth.

4.4 Granger Causality results

The Granger-Causality test is conducted in order to find out the existence of causality linkage among the variables in questions. Also we perform the Granger-Causality test in order to examine whether one determinant variable is useful in forecasting in short-run relationship. In this study, the researcher employs the method developed by (Granger, 1969). If it is assumed two variables e.g. X_t and Y_t , affect each other with some lags. The relationship of these two variables can be formulated in a VAR model. Then, if it is tested whether X_t causes Y_t , the researcher check that how much of the present Y_t , can be represented by lagged values of X_t and Y_t . In the Granger causality the researcher check the null hypothesis that X_t does not granger cause Y_t , and if it is rejected the null hypothesis, it implies that X_t does Granger cause Y_t . Based on the co-integration results, it can be ascertained that variables are co-integrated, and therefore, are causally related. The Granger causality method is used to test the direction of causality among the variables. In the models Y_t represented by GDPp and X_t represented by VAT, CED, CIT, L and K.

The granger causality result at Table 4.6 below shows that there is existence of a bidirectional causality relationship between custom and excise duty and GDP per capita of Zanzibar at 5% level of significance. This means that the two CED and GDP per capita complement each other. Meaning that the development of economy trigger the collection of Tax revenue from the new investment which in turn the speed of tax collection causes economy to develop through the government spending the revenue into productive projects, the results is consistent with Garanja (2013) who found bidirectional relationship between custom and excise duty with economic growth. In addition, the result of Granger causality test also revealed that there is a bidirectional relationship important to the economic development and Labor in Zanzibar from labor to economic growth in gross domestic product per capita and gross domestic product per capita to Labor. Therefore the results reject the null hypothesis and accept the alternative hypothesis that there is granger causality between variables. The same result of Granger causality test available for capital formation and economic development. The result revealed that there is a bidirectional relationship important to the economic development and capital formation in Zanzibar from capital to economic development in gross domestic product per capita and gross domestic product per capita to capital. Therefore the results reject the null hypothesis and accept the alternative hypothesis that there is granger causality between variables.

Lastly the results revealed that VAT and CIT have unidirectional causality relationship with GDP per capita of Zanzibar from VAT and CIT to GDPp. This shows that it is VAT and CIT that causes the economic development of Zanzibar and not otherwise.

Table 4.5: Granger causality Results: Model 1

Null Hypothesis:	Obs	F-Statistic	Prob.
LCED does not Granger Cause LGDPp	29	3.674	0.053*
LGDPp does not Granger Cause LCED		2.722	0.040*
LCIT does not Granger Cause LGDPp	29	3.441	0.052*
LGDPp does not Granger Cause LCIT		1.369	0.946
LVAT does not Granger Cause LGDPp	29	6.885	0.000*

LGDPp does not Granger Cause LVAT		1.082	0.364
LL does not Granger Cause LGDPp	29	5.270	0.005*
LGDPp does not Granger Cause LL		5.372	0.000*
LK does not Granger Cause LGDPp	29	3.109	0.038*
LGDPp does not Granger Cause LK		3.369	0.045*

Note: *and ** represent statistical significance at 5% and 10% respectively.

Source: Author computation (2020)

5. CONCLUSION AND RECOMMENDATION

The study examined the relationship between tax collection and economic development in Zanzibar using the annual time series secondary data from the period 1990–2019. The study employed the Dynamic Ordinary Least Square (DOLS) to achieve the intended purpose. The estimation result showed that the entire three variables that were chosen as the proxy of taxation namely; VAT, CIT and CED had positive significant relationship with the economic development. The results also showed that there is existence of a bidirectional causality relationship between CED and economic development at 5% level of significance also bidirectional relationship between labour forces and capital formation with economic development at 5% level of significant. In addition, the results revealed unidirectional causality relationship from both VAT and CIT to economic development. The study then recommends among others, that the government of Zanzibar should re-visit and review some custom and excise tax laws and regulations that are repugnant to the performance of the custom and excise tax system, so as to block and discourage the loopholes that are being exploited by taxpayers to either evade or avoid tax payments.

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Honest Prosper Ngowi and Joel Mvungi

Contributions of Blue Economy in Tanzania: The Case of Employment

Abstract

The concept of blue economy is relatively new but it is getting huge traction across the world. The activities that constitute blue economy across the world are not new. They generally include all economic activities that take place in the ocean space. They include various value chains and their nodes in such activities as shipping, fishing, hospitality, mining, sports, research, aquaculture and many others. These activities have substantial potential and actual roles in economies across the world. Tanzania is not an exception in this.

Informed by both primary and secondary data, the authors show that blue economy has contributed substantially in creating direct and indirect employment at the Dar es Salaam Port in Tanzania. The findings suggest that blue economy has huge potentials to play not only in Tanzania but across the world. It can substantially contribute in creating direct and indirect employment and other benefits to the economy. The authors recommend that blue economy continuously made to be among the key focus areas for economic growth and development in Tanzania and beyond. Learning from other countries such as South Africa's Operation Phakisa is very important for doing most out of blue economy potentials.

Key words: Blue Economy, Employment, Tanzania

Symphrosa Chacha

Imperatives of Public Diplomacy In Advancing Emerging Economies In Africa: A Case Of Selected Public Diplomacy Agents In Tanzania

Abstract

Public diplomacy encompasses a range of ways for nations to engage with foreign publics in search for improved understanding and desired relationships. It creates soft power, an indispensable currency in contemporary global affairs. In these modern times, public diplomacy practices essentially entail a set of communication-centric activities, with overarching transformative sustainable rewarding relationships. This study aims at assessing the imperatives of public diplomacy in advancing emerging economies in Africa through assessing selected public diplomacy agents i.e. international development partners namely USAID, JICA, CHINAID, UKAID and KOICA in Tanzania. The qualitative approaches were adopted in this study, basing mainly on literature survey. The study findings suggest the presence of broader geo-political and geo-economic context for communication on the global stage which was changing very fast. On the other hand, the rise of China and other Asian counterparts are emerging major public diplomacy agents in African countries including Tanzania. This among other things make emerging economies which engenders tectonic power shifts in world affairs. Following the widely posited widespread recognition of various roles of public diplomacy, admittedly digital technology is transforming the tools and platforms for public diplomacy. Digitalization and advanced analytics are changing the way people seek information and stay connected. The acceleration of digital technology has dissolved the boundaries between domestic and abroad, making the interaction of national concerns and international engagement

ever more dynamic and interdependent. The study recommends the mainstreaming of economic diplomacy in the core of public diplomacy so as to embrace the extended benefits of public diplomacy in Tanzania.

Keywords: Public diplomacy, Emerging economies and Public diplomacy agents

SESSION 4 [B2]
1330-1500/Wednesday 15th, September 2021/Meeting Room B
Supply Chains, Marketing and Entrepreneurship
Session Chair: Dr Hanifa Massawe

Hanifa T. Massawe

Corporate Social Responsibility in Tanzania: A panacea to business growth or an impediment?

Abstract

Corporate Social Responsibility hereinafter CSR represents a manifestation of concerted global effort to align corporate business activities with the countries socio-economic agendas. CSR evolved in the 15th century in the continental Europe and expanded to other jurisdictions with a contextualized form depending on country's socio-economic level. The importance of CSR is found in its motivation for corporate commitment towards compliance with relevant laws of the jurisdiction within which business is carried out and its behavior as part and parcel of the community. As part of the community, corporate entities are expected to ensure sustainability of their businesses while improving the conditions of the respective local communities and donating some of its profits to local projects.

CSR carry significant potential to improve society's welfare while in turn supporting business growth through reflection of manifested corporate efforts to act as socially responsible citizens. Despite value attached to CSR and its inherent benefits it is pertinent to observe that most of the scholarly work in the area of CSR have highly established focus on its attributes and conceptualization. Nonetheless advanced exploration on CSR is required in order to establish practical issues on CSR. This paper therefore seeks to examine the nature and status of its applicability in Tanzania. The examination will be drawn from global CSR practices as an informative point towards CSR application within Tanzanian corporate businesses together with its benefits to businesses and the challenges revolving around its effective implementation. This paper will draw from desk review and empirical data from surveys to be conducted to specified corporate entities in order to inform the subject matter. The desk review is expected to enrich the subject in terms of the foundational aspects of CSR and its practicalities whereas the empirical part will informs on its externalities.

Reflection On Possibility And Practicability Of Having Breastfeeding Policy At Work Place In Tanzania

Abstract

Despite Tanzanian government efforts to ensure optimal breastfeeding and child feeding in general, Tanzania has not approved the ILO Convention No. 183 of 2002 which protect and promotes breastfeeding on workplaces. Current policy and legal instruments do not ensure conducive environment of breastfeeding to mothers with infants at workplaces both in public and private entities. The main objective that guided the study is to examine of the possibility and practicability of having breastfeeding policy at workplace in Tanzania. The study applied descriptive design and sampling was done using purposive and convenient sampling. The study employed interviews and review of key policy documents as means data collection. The study found that there is lack of coordination among the analysed legislation on addressing breastfeeding at workplaces. Some of were silent on the matter, while others tried to address the matter in a narrow perspective. Also, the study found that there are many challenges such as delay of maternity benefits to working women who get birth lack of special rooms or places for breastfeeding to mothers with infants, lack of milk pumping and storage facilities and some of breastfeeding being mistreated at their workplaces. The study concluded that government through its policy makers and decision makers, should now come up with standalone legislation which will address and accommodate all matters relating with breastfeeding to working women at workplaces in Tanzania. The study recommended that there must be a serious and intensive review of the current legislations for the purpose of allowing amendments and formation of the new legislation on breastfeeding at workplaces in Tanzania.

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The Dynamics of IoT in the Modern Supply Chain Management and the Limitless Possibilities It Has Unveiled

Abstract

Supply chain management has been in presence and has advanced over the past hundred years. This paper takes a detailed account of the evolution history of supply chain management. Whereas supply chains for consumer goods largely depended on physical interactions between employees in production, physical distribution, wholesale and retail. Currently customers are demanding products or services of the right quantity, price, quality and delivery at the right place and time. Companies are forced to reconsider finding different ways to tackle customers' requirements with minimal available resources. Analysis of the literature shows that over the

years conventional supply chain management, which depended on physical and laborious collection of information and tracing of goods, has advanced into smart supply chain management. Radio Frequency Identification (RFID) based tagging for recognition technologies and communicating gadgets has made a big contribution in the general development of the smart supply chain. Application of Internet of things (IoT) revolutionized supply chain to become digitized and automated in operations and business activities. It is recognized that a whole lot of Internet of things infrastructure layers run by assembling, transmitting the information to track the position, quality and timely delivery of goods. The employment of Internet of things not only tracks the goods but brilliantly forecasts the situations and helps in safeguarding and minimizing losses. Internet of things application is driven by complex algorithms in different supply chains.

In this regard, this paper points to look over the supply chain management issues and how the application of Internet of things in business processes will result to sustenance of supply chain management whereas the paper has unveiled in areas such as Pharmaceutical, insurance, warehousing and food to show the levels of possibilities it could reach in different scales and dimensions.

Key words; SCM-Supply chain management, IoT-Internet of things, RFID-Radio Frequency Identification, WSN-Wireless sensor networks, OEE-Overall equipment effectiveness

Introduction

The idea of “supply chain” is well established in the literature and is generally referred to as the positioning of firms that bring products or services to market” (Lambert, Stock and Ellram, 1998). Supply chain comprises manufacturers, suppliers, wholesalers, retailers, other intermediaries and even customers themselves. For instance, when a customer purchases a prescription drug she/he does not buy directly from the Pharmaceutical company rather from an intermediary it could be a supermarket or neighborhood Pharmacy.

Supply chain management involves managing the flow of goods and services. The movement of finished goods and services from point of origin to the destination, storage of raw materials and inventory is what comprises management of supply chain. A supply chain is governed by designing, planning, execution, control and monitoring. It set out a motive of creating net value, synchronizing supply with demand, building competitive infrastructure,

gaining advantage of worldwide logistics and global performance measures. Supply chain management has been of great support by improving handling of goods, process integration, financial position, supporting customer services, reduction of operating costs, inventory costs, production cost and total supply chain cost. A modern supply chain operates in a constantly dynamic environment, thus exposed to never ending possible risks.

These weak links are such as customer requirements responsiveness, difficulty in getting correct visibility of the market requirements, analytics not being efficient enough to be spread to the entire supply chain and managing sudden changes in demand.

Companies are forced to reconsider finding different ways to tackle customers’ requirements with the minimal available resources. With the increase of technological advancement, customers are now open to the awareness and are demanding products or services of the right quantity, price, quality

and delivery at the right place and time. With the existence of various players in the supply chain industry managing uncertainty is a huge challenge. Timely delivery of orders can be affected by several unpredictable and hard to control factors i.e., traffic and limited inventory. Fast technology development has resulted in product changes leading to a modern supply chain which is complex, thus the importance of implementing supply chain management by many industries. In order for companies to survive in such a competitive environment they have to establish a highly responsive and risk free supply chain. Highly responsive and risk free supply chain can be tackled by the implementation of a smart supply chain management. Smart supply chain management plays a big role in overcoming the weak links in the system by the use of Internet of Things(IoT).

A lot is being said concerning the Internet of things and how it will impact every industry globally. Aside, conventional ICT technologies help to keep track of supply chain functions such as purchasing, transportation, storage, distribution, sales and returns (Vanpoucke, Vereecke, & Muylle, 2017). The potential to address the information capture and exchange in real-time has multiplied, due to the presence of many other smart devices recently joining the list under the newly coined IoT umbrella of technologies, (Atzori et al., 2010; Borgia, 2014).

Background of IoT

Kevin Ashton was the first person to implement the term ‘Internet of things’ IoT which was during the implementation of radio frequency identification (RFID) in the Procter and Gamble company for Supply Chain Management. RFID helps in the IoT devices to mainly identify, track and transfer data. RFID being one of the IoT key parameter comes in five(5) different classes namely Class 1: Passive tags with write/read

memory, Class 2: security regarding formalities, Class 3: Semi passive tags battery driven, Class 4: interactive with similar like tags and finally Class 5:Activating of backend linked tags

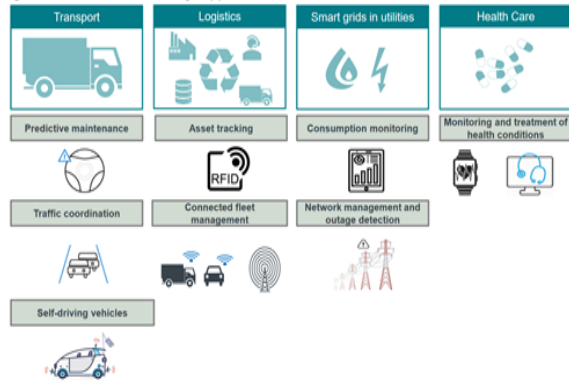
IoT is an innovative technology that can connect all smart objects together within a network with no human intervention. Easily any object that can be joined to the internet for additional monitoring or transferring data can be an IoT device for example smart wearables like smart watches, cattle ear tags, smoke detectors mentioned by a few. The internet has evolved in a series of waves (Cisco 2021). Device centric were the first waves, where we had to go to a computer to access the internet, there after the evolution of mobile phones came and we could access internet anywhere we were.

IoT Applicability

In real life, IoT can be applied in many different systems, including

- Internet connected cars
- wearable devices including health and fitness monitoring devices, watches, and even human implanted devices;
- smart meters and smart objects;
- home automation systems and lighting controls;
- smartphones that are increasingly being used to measure the world around them; and
- wireless sensor networks that measure weather, flood defenses, tides and more

Figure 1. Internet of Things applications



Source: Frontier Economics

IoT in Supply chain management (SCM)

The IoT revolution is reshaping supply chain management. It is evolving supply chain management starting from manufacturing, transportation, storage of goods up to distribution of goods. IoT is becoming a vital technology in Supply chain management where it can deliver low expenses, better quality of service and advanced user experiences. This move towards a connected and smart supply chain network opens up new possibilities by integrating processes and systems across various sectors and technology enabling cross sectional transparency and visibility for all stakeholders to make timely and sound decisions.



How IoT links in the Supply chain management

Internet of things enables real time performance monitoring which is of particular value in maintenance and asset management applications when machinery can self-optimize, self-configure and diagnose themselves to produce reasonable and usable data

Materials and Methods

Problem statement

Supply chain is the most important part in any business organisation. A defect in the supply chain network will distress the entire chain in the network. Supply chains have become more diversified than before, thus resulting in the occurrence of increased disruptions. Supply chain is driven by several disruptions such as 1. increased costs throughout the supply chain. Rising operational expenses are caused by lack of visibility and accountability for reducing cost, as a result expenses creep up throughout the supply chain network and profit margins end up being under pressure .2 Consumer demands drive need for improved speed, quality and services. Every industry is facing disruption as consumers

have never had more choices. End users pain points need to be concentrated on by providing excellent products and services. 3 Supply chain complexity due to multiple channels to market.

Firms which do not achieve responsiveness in connection to its supply chain strategies usually end up in worst case scenarios. Several streams of studies have shown that an increase of uncertainty or supply networks, proliferation of product variety, globalization of business and shortening of life cycles have forced organizations to consider the application of smart supply chain, which plays a huge role in overcoming the weak links in the system.

Objective of the study

The objectives of this study are outlining dynamics faced by supply chain business processes and the sustenance of consumer goods supply chain centered on the application of the Internet of things.

The following two self-sufficient objectives in particular has been discussed thoroughly.

- 1.To check the dynamics of IoT in the modern supply chain management
- 2.The limitless possibilities of IoT in current world space

Literature review

In this section, a lot of materials and literatures has been used regarding Internet of things application in Supply chain management and other business sectors.

Many definitions of IoT are available in literature. According to Atzori, Iera and Morabito (2010), the main reason for this is that IoT is composed of two words: "Internet" and "Things" and so we have two visions. As in Xu, He, and Li (2014), a typical IoT network includes four main essential layers: (1) A sensing layer that integrates different types of 'things' like RFID tags, sensors, actuators; (2) A networking layer that supports information

transfer through wired or wireless network; (3) A service layer that integrates services and applications through a middleware technology; and (4) An interface layer to display information to the user and that allows interaction with the system.

According to Ganeshan and Harrison (1995) "SCM is an integrated network which operates in a coordinated manner from procurement stage of materials till delivery of the finished goods to end use"

According to DHL, the world's leading logistics service provider, and Cisco, the worldwide leader in IT, on their newly jointly released report focused on the Internet of Things (IoT) pointed out that, "IoT will improve decision-making in warehouse operations with near real-time data analytics based on Wi-Fi connected devices"

As per Global Connectedness Index 2014 revealed, "the overall level of global connectedness remains surprisingly limited. There is huge potential for countries to further increase their connectedness and prosper through trade, integration and technology. We believe the Internet of Things will be a primary enabler of this global transformation."

During the course of this review, it revealed that the topic is still under considerable development and debate.

Methodology

The authors revised studies done on dynamism of IoT, its limits and what possibilities it unveils. These studies were processed by the use of internet whereby the publish articles were downloaded and investigated and discuss.

Discussions and findings

In the commencing of the fourth industrial revolution also known as Industrial 4.0 many mega companies have shifted from manufacturing logic to decentralization of

most of its operations to achieve maximum productivity.

The fourth industrial revolution can be described as “a shift in the manufacturing logic towards an increasingly decentralized, self-regulating approach of value creation, enabled by concepts and technologies such as cyber-physical system (CPS), Internet of Things (IoT), Internet of Services (IoS), cloud computing and additive manufacturing and smart factories” (Hofmann and Rüsçh 2017).

IoT also has a potential economic impact of by placing it in an historical context. Based on the investigated literature, IoT can be viewed as an innovational complementarity to the ICT-revolution. Thus, technical improvements in ICT-technology have provided the technological possibility to connect machines with each other and to the Internet, which is a pre-requisite for an IoT system

According to Cisco's economic analysis “IoT will generate \$8 trillion worldwide in Value at Stake over the next decade. This will come from five primary drivers including supply chain and logistics that will contribute \$1.9 trillion”

Just like electric motors in the early twentieth century, IoT connections have diffused rapidly in many countries. IoT systems are also able to generate large amounts of data that can be used to improve optimization of production. Data collection to the same extent was not possible during the diffusion of electric motors and provides additional potential for productivity increases from IoT.

The internet of things (IoT) in the pharmaceutical industry plays a significant role in optimizing firms processes which does not only regulate the equipment and materials but also improve production efficiencies. Mostly the manufacturing

process in the pharmaceutical industry includes processing, manufacturing, extraction and packaging. Achieving these significant roles are accompanied by pain points which are globally recorded, namely first in flexibility of the entire system (supply chain), compliance, traceability and stakeholder involvement.

Evolution of IoT has solved many if not reduced the pains mentioned above, with IoT based applications has significantly helped industries (pharmaceutical) to track all coded objects which resulted in reduction of errors, theft prevention, speed up the process, increase of company efficiency, introduction of flexible and complex organisational systems.

Fast forward during the pandemic we have seen without reasonable doubt that there are some vaccines that required to be kept under specific optimum conditions, for instance Pfizer-BioNTech vaccine which requires to be kept in temperature between 2-8 degree Celsius, with this in mind companies like Pfizer and BioNTech who are the originators of this vaccine has and mostly definitely must employ the cold chain management which is a key example of IoT in play.

Through the use of RFID and WSN would definitely make sure the vaccines reached the targeted consumers in a perfect condition thus eliminating the possibility of vaccine failure and even loss to the manufacturers. Hence the use of the mentioned IoT systems leads to cost reduction, increase productivity efficiencies and improve drug delivery to the consumer. Furthermore, IoT has diminished if not eliminated the gap between the doctor to the pharmaceutical supplier to the consumer, whereby the doctor or the pharmacists can keep track of the patient's adherence to the prescribed medications through the cloud/ IoT. IoT can actually save many people's lives and discover

treatments, for instance wearables like smart watches and cardiac biochips (pacemaker) can eliminate predictable loss of lives since all the alarming conditions of the patient will be prior reached and the condition would be tackled before time.

Moreover, application of IoT in the pharmaceutical value chain can be clearly seen beyond reasonable doubt that can improve in smart packaging and sample life cycle management, throughout the ages we have seen most pharmaceutical manufacturing operations are generally perfumed in batches and equipment are mostly self-contained, isolating the stakeholder's flexibility decision making. The executives are not available to make informed decisions for improving the overall equipment effectiveness (OEE) in areas like scheduling and maintenance due to insufficient information. With IoT in place has increased the ability of companies to expand and connect the visibility into activities of the shop floor to enhance productivity significantly.

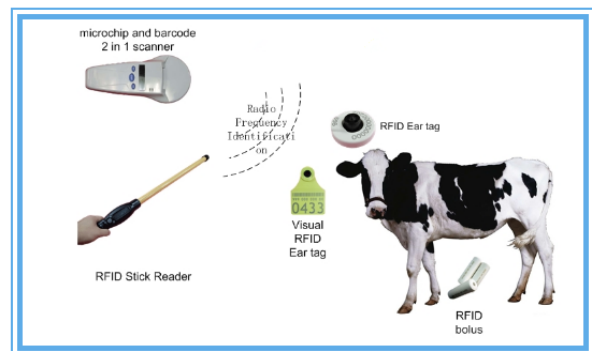
Insurance companies could rely on the big data from IoT devices it produces to ensure the maximum tracing of their clients' health, animals and properties. This kind of information can really help the stakeholder to make key decisions by determining key investments, cost cutting strategies and other future endeavors to maximize the firm's profit.

Also insurance companies could rely on IoT and leverage of its dynamics to

introduce



Insu-tech whereby the Supply chain of service provided by the insurance companies really reach the targeted clients on time as it would remove the traceability and inflexibility that has been an all time problem for most supply chain, RFID tags on animals that could give the stakeholder a pure 360 degree views on the entire insurance firm and decision to know on



what insurance products to sell and market the specific product. And how to streamline the Supply chain to reduce turnaround time(TAT) in payment and service delivery thus increase better customer experience

In the Food sector the food supply chain is not far from obvious whereby we see the

dynamics of IoT to save the world food supply chain is the key remedy toward this issue. It is estimated that by 2050 many countries across the world might be struggling to feed its population, to keep up with the first growing population that keep stressing the natural resources we really need to produce more with less that still remains on the planet.

Having no or Zero hunger by the year 2050 then we must make sure that the handling of food is flawless with a clear plan on waste control, storage and transportation.

With 7.5 billion people being the current world’s population and expected to skyrocket to 9.6 Billion by 2050, we need to boost food production by 70%(FAO,2009).

Boosting the production is not the only key issue but also safeguarding the food from loss. Food items like dairy products, veggies, fruits are vulnerable to temperature and other environmental conditions as they move from the farm to the consumer.

Improper cold chain management causes up to 30% loss or waste of food as it transmits from the production to the distribution of the supply chain and this is mostly due to bad storage facilities.

According to WHO (2019), “one out of every ten people and four hundred and twenty people die every year due to contaminated food”

The food 2019 data report presented by FAO

The malnutrition number around the world where as follows

Table I: Percentage of Malnutrition Population

	2005	2010	2015	2016	2017	2018
World						
Africa	21.2	19.1	18.3	19.2	19.8	19.9
Asia	17.4	13.6	11.7	11.5	11.4	11.3
Central America	8.4	7.2	6.3	6.1	6.1	6.1
South America	7.9	5.3	4.9	5.3	5.5	5.5
North America & Europe	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5

Source: (FAO 2019)

As countries keep on depending on each other regarding food supply we see there is a significant cross border involved in the distribution of food from the production to the consumer WHO who work hand in hand with FAO on food supply chain to ensure food safety is on key priority. With resources being scarce all around the world the key challenges the food chain supply faces include

- Over stressed water resources
- Land scarce for cultivation
- Unpredictable rain seasons and patterns
- Extreme increase of temperature
- Abnormal rise of water sea levels
- And ecosystem being drifted from it status quo

All of these become key players to the changing of the food supply chain, there is an undoubted need to rely on IoT to evolve the mechanisms where it will form a interconnectedness between the wholesalers, logistics and the retailers to the core backend processes concerning the food production.

The involvement of IoT to the food supply chain is what we know or recognised as a smart food supply chain. Deploying IoT in the food supply it guarantees us more

production and quality assurance of food at the respective warehouses and its logistics plans. To reach the global goal of a hunger free world by 2050 then IoT is inevitable to support the goal.

“By 2018 9.2% of the entire world population if not more than 700 million people have faced food insecurity” (FAO,2019). Thus adoption of technology in the agricultural sector is of great importance as it increases crop quality assurance and cost reduction to the fullest.

Adoption of precision agriculture to the stakeholders who are farmers, they have declared that there is proper assistance in their decision making by making proper, better and informed decisions.

“The use of smart farming is simply collecting of bog data from the field i.e temperature, humidity, soil pH and soil moisture to make better decisions” (Sureephong, Wiangnak and Wicha 2017)

Water being the source of life and fuel powering the agricultural sector it should be protected under any cost but the levels in which it is diminishing and squarand it is under alarming rate.

FAO is working with many countries to make sure water is use efficient, productive equitable and care the environment (FAO, March 2019)

Mushrooming of new technologies such as Big Data, IoT, Blockchain, Machine learning, Robotics and AI have the potential to change the farming world beyond measure (Wolfert et al 2017)

IoT and its dynamics has focus mostly in automating farming and agricultural methods to make the process seamless, efficient and effective (Zhao,Lin,Han,Xu and Hou 2017)

FAO reaching its 2050 goal of a hunger free world then proper food management, water resources management and less food wastage schemes will surely provide assurance of the milestone well reached, and proper climatic change and improved livelihood are the immediate fruits of these efforts.

Considering India as a good example it has been producing upto 11% of the agricultural products despite being also among the country with high malnutrition level, it is shown that 18-25% of food loss in India happens from food supply chain from producer to the consumer.

Microsoft has taken an initiative to work with around 175 farmers in india around Andhra Pradesh to put IoT to deploy the smart farming that has caused 30% of the crop quality.

The relevance of using IoT in food and production is clearly to tackle the Food supply chain problems like

Manpower diminishing: we have seen that every second 2 people are moving from the rural to urban leaving the large portion of the land being untouched we expect by 2050 one third of the population will be living in rural areas.

Global warming: by 2080 we foresee to the decline of 3-16% in agriculture production due to extreme climatic change whereby we expect 17to 28% to be from Africa

Degradation of the land: Due to deforestation, overgrazing we are diminishing slightly every single day productive land that would have been producing massive food products

Food Loss and Wastage: A great number of food around the world is being lost and surprisingly 50% of the entire food wastage

is from Africa. With around 4.4 Gt CO₂ that causes more environmental destruction.

With these clear problems being stated smart farming is the appropriate remedy to these problems, Including of IoT to reduce the over usage of fertilizers, pesticides and water. Farmers have gotten clear views on the real time data that was produced by IoT devices that are deployed in the farms and livestock to send appropriate information. This ensure that efficiency and increase the productivity with the utilization of resources to be at maximum utilization. also with these data produced with the IoT can also reduce the emission of carbon thus enables more productivity

IoT dynamics in the farming scales:

1.Precision Farming: This is simply the application of ICT in agriculture to know and identify, analysis of parameters at the field this is the provision of data dashboard to give sound decision making.

2.Drones: with the new modern flying machines drones can be used to provide analysis on the field, pesticides spraying and crop quality/yield assurance, and since most of them are affordable and they are easy to deploy.

Using IoT drones can be connected to mobile devices of the farmers which would alert them as soon as there is any peculiar condition that would arise at the field.

3.Smart Irrigation: about 70% of fresh is used in irrigation at the rise of smart irrigation has proven is the new deal in farming industry. With the increase of irrigation as a form of watering increase from 5-20% globally (Focus 2017), With IoT significant amount of water will be saved and the process will be lean as with smart irrigation smart sensors will be dipped into the soil and it would detect the soil

moisture levels and send alerts if the water levels need to be added or not. And also it informs the farmer the level of irrigation a specific crop requires to germinate or yield.

4.Drone to smart irrigation: as the drones fly across the acres of the farming land it would send alerts to areas with high level of drought to allow specific irrigation if not dripping in order not to over utilize water if it would be if there is no data at all so IoT has once again proven victory over the non tech orthodox farmers.

5.Remote soil monitoring: Knowing the soil acidity, soil pressure, water content and temperature of the soil with embedded sensors would provide sound decision making to the farmers who are key player in the Food supply chain these would make sure what to do to the soil in order to increase productivity and more output to the consumer who are the endpoint of the supply chain.

6.Weather Monitoring and Forecasting: This plays a significant role from the producers who are the farmers like knowing specific crops to be planted in order to sustain harsh temperature, mild or average and also during the delivery of the goods to know how to handle the packaging in order not to waste the crops before reaching the intended consumer therefore the dynamics of IoT has give profound importance again to the users.

7.Data analytics and future plannings: With massive amount of data produced from the fields and constant soil monitoring the IoT has provided clear metrics to be use in stakeholder meetings for future planning in yield production.

8.Manpower reduction requirements: With the trend showing a large number of people migrating to the urban area then very few field officers are expected to be in place

but since we will be getting real time information then the supply chain won't be in a position to breakdown at any point thus there will be no need to stay at the field this would all be monitored, irrigated sprayed from a far with the help of IoT.

In Warehousing and logistics part of the supply chain IoT has played a great deal especially during this Covid-19 pandemic where there was overstocking of food then every food mattered the most, therefore the for food which were basically perishable the supply chain becomes more complex.

Sensors are used to access the quality of the food storage facilities during the transit stage till when it reaches the consumer, Food safety is ensured standards are kept at its highest precision and are made sure they are maintained.

More advanced sensors are kept in place to control the humidity, and temperature within the containers during the shipment phase whereby shippers are always on the watch and they can remove the food loss with proactive decision making. The shippers also can remove the spoiled food prior before it contaminates the entire food supply, With Global positioning systems(GPS) this can help locate the truckers anywhere any time and also advise the best route to be taken to spend minimum time on the road and increase the TAT and avoid any delays that could might possibly happen during the entire supply chain

Conclusion

As mentioned throughout this paper, that this paper seeks to establish dynamics of IoT and its limitless possibilities, the critical review and discussion clearly acknowledges Kevin Ashton as the Pioneer of IoT, whose efforts paved a way easy access of the necessary information in real-time,

completing numerous tasks with envying speed(automations) and incredible time-saving tool, however nothing is perfect therefore IoT can experience data breach which is extremely stressful.

IoT has played an extreme role in shaping well-organized supply chain management. It is considered one of the most promising technologies to control and improve the performance of the supply chain. Warehouse are the key parts of the supply chain that contribute to the success of any industrial organization, so IOT are gaining vast attention from a wide range of organizations to improve performance by facilitating tracking and monitoring of goods, brings more comprehensibility to the communication process, and increase the precision of planning hence gaining reputation and more customers and profit.

It is simple to track inventory and monitor the production process thanks to the interconnection of numerous devices used in the manufacturing process. It is a computer network. Things on the internet provide an answer to avoid duplication, real-time location, and real-time tracking and thus solving the discrepancies of supply chain management.

Through IoT-technologies, accurate, timely, and vast amounts of data can be captured in the supply chain allowing faster deviation identifications. Availability of information regarding the precise location, status, or condition of the goods or the environment benefits the identification of the upcoming problems of nature, whereby precise actions can be taken accordingly. Creating early alerts regarding abnormalities in the process and make it possible to react quicker. By storing and analyzing the historical data gathered by the IoT system it is possible to identify root causes of problems, optimize

performance and create more accurate future predictions

An IoT-based platform is a great investment to the small or big organizations as long as they desire to have a desirable supply chain in their activities. Governments who are the law enactors and other stakeholders have to be fully equipped with this new technology so that they will be able to support the implementation of IoT in various industries and bring sustainable supply chain management for future economic development. The upward trend may be attributed to the pervasiveness and proliferation of IoT applications in food safety, manufacturing, supply chain management, logistics, and agriculture. IoT technologies are critical enablers for the optimization of food supply chain processes, the increase of operational efficiencies, and the monitoring of food compliance.

Recommendations

As many countries and the World in general are moving aggressively on IoT applications and implementations, the following recommendation are paramount important for fully utilization of IoT in businesses and Supply chain Management in particular, (i) Setting substantial fund for establishing their national IoT plans and blueprints (ii) Investing heavily in research and developments of IoT (iii) Government/regulators should allow market-driven approach will unleash the full innovation potential in the IoT space

Despite the all miraculous things IoT has proven to achieve we have also seen some setbacks which comes with IoT deployment in most of the spheres of life, mentioned few are the least of happens with IoT application in life

- **Privacy breaching:** The private data these devices keep on submitting to the cloud is enormous and even some sensitive data can be accessed by anyone at any time data like locations, health status which at time are of great importance to remain confidential
- **Security issues:** Hackers and cyber criminals continue to crack the cloud assets and gain tons of data from the repositories that these IoT keep on producing. It is not as safe as it claims to be.
- **Data Mining incapability:** These data that are produced through the IoT devices do not have sufficient miners to really understand the data that is produced thus still data analytics is of significant role not to be missed if and only the essence of IoT really wants to be utilized to its great potential
- **Standard variation between IoT device:** With these devices being produced from different manufacturers then we are not assured of the quality and precision of the data produced by these devices since of the no clear standards kept in place in return these causes more in differences in decision making even on the same aspects

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Quality Customer Service Practices In Supply Chain Management: Evidence From Service Sector In Tanzania

Abstract

Purpose: This study aimed at reviewing quality customer services practices in supply chain management with the evidence from service sector in Tanzania. The specific objective of the review was to assist service organizations understand the very common quality customer services practices which can fit their circumstances and hence, improve their SCM and attain zero defect of their services along the supply chain.

Methods: This study utilised secondary source of data by reviewing research articles and reports relating to quality services which were obtained in hard copy from University library and online. Considering the similarities among characteristics provided by different organizations in Tanzania and across the world, results obtained was used to relate, explain and predict the quality customer services practices by large number of Tanzanian service organizations. These results were analysed and presented qualitatively through explanations, discussions and making inferring them to wide accepted theoretical ideas.

Results: The review revealed that quality customer services practices that can be implemented by all organization along the supply chain to enhance consistency thereby service quality, attraction, satisfaction and retention of customers are provision of education to customers, internal communication systems, capacity building to staff, creation and maintaining good customer reception area and continuous improvement of appearance of physical facilities.

Conclusions:

The conclusion drawn by this study is that service sector is one of the fast growing and increasingly very important sectors in Tanzanian economy whose contributions in GDP and employment creation cannot be overemphasized. Due to intangibility of the services, organizations tend to have their own practices of quality customer services thereby leading into high variability of service quality. To avoid such variability which can affect performance of the service organizations in the supply chain management, organizations in one supply chain are urged to focus on the very common quality service practices identified by this study.

Keywords: *Quality service, customer, service organizations, supply chain management, quality service practices,*

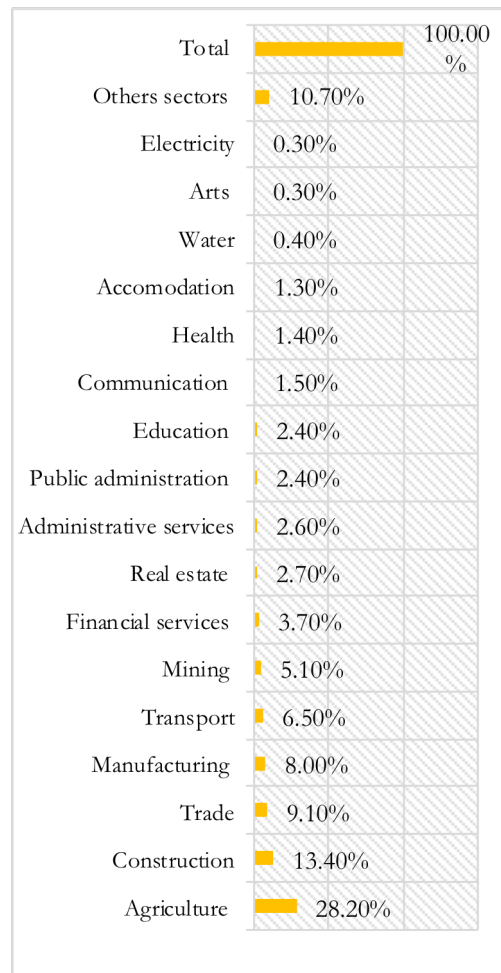
Introduction

Service sector is perceived to be the fastest growing sector in the global economy overtaking the manufacturing sector in the overall contributions towards gross domestic product (GDP), employment creation and poverty alleviation (World Bank Group, 2020). As far as Tanzania concern, the service sector has become the largest sector in the economy overtaking the agriculture which over years and decades was perceived to be the back born of Tanzanian economy. Thus, the contributions of service sector in terms of GDP, employment creation and poverty alleviation cannot be overemphasized. According to Ministry of Finance and Planning of the United Republic of Tanzania (URT) (2018), there are a total of 17 classified sub-sectors participating in Tanzanian economy among them, 13 sub-sectors belong to service sector thereby contributing 38.9% of the country's GDP followed by Agriculture (28.2% in the second and manufacturing (8.0%) in the third as shown by Table 1 and Fig.1.

Table 1: Sub-sectors contribution into GDP

Sub-sectors	% contributions into GDP
1. Agriculture	28.20%
2. Construction	13.40%
3. Trade	9.10%
4. Manufacturing	8.00%
5. Transport	6.50%
6. Mining	5.10%
7. Financial services	3.70%
8. Real estate	2.70%
9. Administrative services	2.60%
10. Public administration	2.40%
11. Education	2.40%
12. Communication	1.50%
13. 	1.40%
14. Accommodation	1.30%
15. Water	0.40%
16. Arts	0.30%
17. Electricity	0.30%
18. Others sectors	10.70%
19. Total	100.00%

Figure: Sub-sectors contribution into GDP



which deteriorated the economy of almost all countries across the globe. Noting the percentage contributions of the service sector in Tanzania's economy, annual economic growth rate and its rapid decline in 2020 is largely attributed to the growth and downturn of the service sector in the country. However, from 2021 there has been anticipations of the economy to kick-off following the discovery of the vaccinations against COVID-19 which has started to restore incentives to produce by removing restrictions such as lockdowns which killed international trades in the 2020 due to prohibitions of free movements of people and exchange of goods and services.

Behind growth and development of the service sector in the country, is growing emphasis on quality customer service practices in the supply chain management (SCM) among services organizations. This is because quality customer services serve as a strategy to attract, satisfy and retain customers among service organizations (Mleje, 2007; Ntamamilo, 2010; Manga, 2018). Mleje (2007) demonstrated that customer satisfaction which is among the important outcomes of consistent provision of quality services makes the customers to talk better about the service and organisation, come again and be loyal to the organisation. Kotler and Keller (2012) provided evidences that having satisfied customers is the base of business growth because behaviours of satisfied customers of talking better, coming again and loyalty to the services and organization imply assured market share, easy marketing, assured demand and consumption of the services which in turn contribute into enormous revenues, profit and business growth.

Given the complexity of the services compared to goods when it comes to quality management due to their intangibility, high variability and perishability, services organizations not yet to establish common standards of quality customers' service practices (Kotler and Keller, 2012; Manga, 2018). However, for the service organizations that operates within the same supply chain, it is highly recommended to engage into some common practices of quality customers services to avoid high variability of the service along the supply chain (Gupta, 2005).

Due to backlink existing among multiple organizations in the same supply chain, defect of service quality and customer dissatisfaction caused by one organization in any stage can affect all other organizations in the same supply chain. Therefore, this paper is motivated to review quality customer services practices in supply chain management service sector in Tanzania. The outcomes of this review could assist service organizations understand the very common quality customer service practices which can fit their circumstances and hence, improve their SCM and attain zero defect of their services along the supply chain.

Literature review

Quality Service

Quality is perceived to has its origin from Latin word 'qualis' that is English is translated as 'what kind of' (Sahney, Mosky and Tyser, 2004). In the business practice and literature, quality was introduced at the first time by Edwards Deming in the 1950s based on the manufacturing companies in Japan (Kumar, Poornima, Abraham and Jayashree, 2006). Deming defined quality as a predictable degree of uniformity and dependability with a quality standard suited to the customer. This definition is, however, perceived to be specific on the manufacturing companies where the manufacturer can predict the quality of the final goods with high degree of accuracy. For the services which are generally

intangible, this definition could not apply, a situation that is leading to development of various quality concepts from various gurus as shown in Table 2.

Table 2: Quality gurus and their contributions

Quality gurus	Year	Quality definition	Citations
Edward Deming	1950's	'...predictable degree of uniformity and dependability at low cost and suited to market...'	Kumar <i>et al.</i> (2006)
ISO 900	Nd	'.... totality of features and characteristics of the product or service that bear on its ability to satisfy stated or implied needs of customers...'	Kumar <i>et al.</i> (2006)
Philib B. Crosby	1995	'...conformance to requirements ...'	Kumar <i>et al.</i> (2006), Kotler and Keller (2012)
Joseph M. Juran	1998	'...fitness for use or purpose'	Kumar <i>et al.</i> (2006), Kotler and Keller (2012)
Bergman and Klefsjo	2003	'...satisfying and preferably exceeding the needs and expectations of customers...'	Bergman and Klefsjo (2003)

Quality gurus	Date	Quality definition	Citations
Gupta	2005	'...fitness of the product or service to satisfy consumer express or implied needs'	Gupta (2005)
Kumar <i>et al.</i>	2006	'.... fitness of the product or service for use that gives satisfaction to customers'	Kumar et al. (2006)
American Society for Quality	2007	'...totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs...'	Kotler and Keller (2012)
Kotler and Keller	2012	'...fitness for use, conformance to requirements or freedom from variation by the products ...'	Kotler and Keller (2012)

Source: Authors (2021).

From Table 1, largest number of the quality gurus define quality as a fitness for use or purpose by the particular products which can be good or service. This definition is also adopted by the authors of this paper thereby instilling a meaning of quality services as fitness for use or purpose by the services that the organization offers to its customers. The services organizations along the supply chain are therefore expected to ensure that the service they create or participate to deliver to final users (customers) are maintained at the high level of fitness for use or purpose.

Service organizations

Based on Kotler (1997) service organization can be defined as the business entities that are involved providing or delivering services to second part (receivers/customers) which are generally intangible as opposed to goods. The Oxford Advanced Learners' Dictionary exemplifies these organizations based on the ownership of the government as to include; those providing civil services, diplomatic services, fire rescue services, health service, health service, internal revenue service, National Health Service, secret service, security service and social services. This paper concurs with the given definitions and examples, however, in order to capture the service organizations participating in the Tanzanian economy, the service organizations concern is referred to Table 1 of this paper.

Supply chain management

According to Nkwabi and Fallon (2020), supply chain management (SCM), refers to a process, network or activities involved to ensure that goods and services move on time from the point of origin until products reach the final consumers. It is also viewing as a flow of materials, information and finance in a network consisting of suppliers, manufacturers, distributors and customers (Matay, 2019). This author considers SCM also as a process of integrated planning, co-ordination and control of all business processes and activities in the supply chain to deliver superior consumer value at less cost to the supply chain as a whole whilst satisfying requirements of other stakeholders in the supply chain. Supply chain consists of the series of activities and organizations that materials move through on their journey from initial suppliers to final customers (Matay, 2019).

All the above definitions regard SCM as a network of activities and actors which interact each other to realize the goods or services to final users. Matay (2019) recognized existence

of actors like suppliers, manufactures, distributors and customers within a same SCM. He also recognizes existence of difference organizations in the same supply chain. This is the same to say, different organization and individuals associate each other in a manner than performance of different distinct activities contribute in realizing certain good or services by the customer. In the Healthcare facility for example, SCM can be said to include, the medical supplier, trainers of medical expert, health facilities and patients. In the transportation, the SCM can be said to include manufacture of transport facility, road agencies, fuel suppliers, Moto vehicle maintenance and repaid, operators and passengers.

Quality service practices

Quality service practices can be defined by referring to quality gurus as a set of practices, acts or strategies carried out by different actors in the supply chain to ensure that quality service is realized and provided to customers. The different actors in the same supply chain have different practices due to differences in quality policies and procedures, internal resources and nature of the actor. Due to different practices, the services are generally characterized by high variability, that is; variation due to different providers of the services, materials used, time and environmental changes. However, customers have their own criteria to evaluate quality of the services irrespective the stage or provide which is essentially by talking with other customers before selecting a service provider (Mleje, 2007; Kotler and Keller, 2012). To ensure consistence and avoid the variability, management of the organizations are advised to set common quality practices, communicates service quality standards in all areas of its dealings and ensure consistent compliance among members (Manga, 2018).

Empirical studies

Ntamamilo (2010) research on implementation of quality customer policy among Tanzanian public organizations based on Tanzania Revenue Authority revealed that among the very common practice that was used to enhance quality of customer service was provision of education to customers. This practice made customers understand the standard of the services provided by the organization, the responsibility of the customers and that of the organization's employees to realize the quality service. Having perfect education about the service is very important practice that can ensure quality customer services among different actors in the SCM because the service involve direct contact between providers and customers (Kotler and Keller, 2012). Thus, understand of mutual responsibility is paramount.

Next, the researcher underlined implementation of the organization meetings as the means of internal communicating of service quality standards and means to achieve them. Also, there were regular training to employees to ensure they have abilities to do their job right at the first and every time (Taxpayers Charter, 2009). There was also creation of good customer reception area by having pleasing facilities such as benches, chairs, tables and front office staff.

Moreover, the organization committed its staff to deliver services on promised time whereby all employees were required by the Taxpayers Charter (2009) to serve customers from 8:00AM to 5:00PM without lunch time. The staff were also required to over respond customer enquiries and complaints and improve their relationship with customers by forging close relationship with them for enhancing voluntary tax compliance.

Manga (2018) examined the impact of quality management on customer satisfaction among service organizations in Tanzania focusing on the National Health Insurance Fund Head Quarter. The study discovered quality customers' services such as greater improvement in

reliability, empathy, responsiveness, tangibles and assurances of services. The organization was also involved in continuous improvement of appearance of physical facilities used to deliver the health services. This involved high availability of modern facilities, equipment and tools used in the provision of services (78.6%), availability of facilities, equipment and tools which were visually appealing (81.0%) and neatness and professional appearance of employees (71.4%). Given that customers tend to use appearance of physical facilities used to provide services in making judgment about service quality (Kotler and Keller, 2012), the practice of ensuring availability of very high appealing physical facilities and surroundings is very seems to be a working practice in quality services management among services organizations.

In the quest of the above practice, Mleje (2007) narrates that unlike physical products, services cannot be seen, tasted, felt, heard, or smelled before they are bought. The person getting the service are thus, not able to see the exact result of the service before purchase, just like a patient in the psychiatrist's office who cannot know the exact outcome before treatment. To reduce uncertainty, persons look at the signs or evidence of the service quality by drawing inferences from the place, people, equipment, communication material, symbols, and price that they see. Therefore, in order to assure quality and enhance customer satisfaction, service providers should improve appearance of physical evidences in a manner that appeal to customers (Mleje, 2007).

Li (2010) report on internal quality management in service organizations noted that service organizations realized that they should be customer orientation by treating their employees as internal customers and delivery quality services to them as to external customers. Based on this report, customer orientation and treating employees who services customers of the company as the organization's internal customers is the strategy. Araujo, *et al.* (2015) report on influence of customer-oriented behaviour on quality service underlined implementation of the practices relating to courtesy, understanding and caring customers, selecting qualified and attentive staff, important factors to consider in developing organizational strategies.

Kumburu (2015) study on NHIF as a tool for improving universal coverage and accessibility to health care services in Dar es Salaam City found existence of practices like capacity building to staff and raising public awareness. The researcher viewed that quality customer services could be enhanced through equal treatment of all customer segments, expanding scope of services and high commitment on timely service delivery.

Methodology

This study utilised secondary source of data mainly by reviewing research articles and reports relating to quality services. Majority of the consulted reports namely Ntamamilo (2010), Mleje (2007), Kumburu (2015) and Manga (2018) were obtained in hard copy from University library. However, the other reports which have provided useful information on the quality customer service such as which Li (2010) and Araujo, *et al.* (2015) were obtained online. Even though these two researches were not conducted in Tanzania, but they were based on service organizations and hence, could provide indicative data on quality customer services practices among Tanzanian service organizations because all services are by nature the same. The most relevant and suitable information was located by focusing on the themes relate to the 'strategy', 'method', 'practice' or 'measure' on enhancing quality customer services by the service organizations. Considering the similarities among characteristics provided by different organizations in Tanzania and across the world, results obtained was used to relate, explain and predict the quality customer services practices by large number of

Tanzanian service organizations. These results were analysed and presented qualitatively through explanations, discussions and making inferring them to wide accepted theoretical ideas.

Results and discussion

Results of this study demonstrate existence of different quality customer serviced among different service organization. However, the arguments and justifications raised by researchers support that majority of the practices can be used among different organizations to suit their own circumstances. These practices were as follows:

Provision of education to customers

The need to provide education to customers was acknowledged by Ntamamilo (2010) and Kumburu (2015) in terms of raising public awareness. The essence of this practice is that education or awareness about the services and its standards in terms of price, availability and provision time affect overall evaluation of customers about the quality of the service (Erick, 2015). Customers who are educated and aware about the service are likely to provide positive judgment about quality of the service than those who are not. For instance, at TRA stated clearly that services shall be available from 8:00AM to 5:00PM all work hours without lunch time. Educating customers to understand time for the organization's service among customers for a base of quality customer service. The staff were also required to over respond customer enquiries and complaints and improve their relationship with customers by forging close relationship with them for enhancing voluntary tax compliance.

Education also inform responsibility expected of customers towards quality service as noted by Kotler and Keller (2012) that there is certain responsibility the customer should fulfil to their service provider for receiving the service. These responsibilities can be stated in terms of cost that must be incurred by customers and expected level of involvement by the customers to realize the service. Therefore, the service organizations operating in the same supply chain should ensure that they educate the customers who come it contact for service in order to ensure consistency in service quality.

Internal communication systems

Internal communication system such as meetings and adequate documentation of service quality standards and communicating them to staff who prove service to customers was acknowledged by Ntamamilo (2010). The basis of this practice is to ensure that employees who are in direct contact with customers understand quality standards, their responsibility towards quality and how to achieve the standards when serving customers. This practice complements also with capacity building to staff as noted by Kumburu (2015) which provided staff with relevant knowledge and understanding on what quality customer services entails and how to achieve it.

Internal capacity building to staff is also essential tool that change and instil behaviour necessary behaviour in the provision of quality customer services. Such behaviour was reported by Manga (2018) such as reliability, empathy, responsiveness and professional appearance of employees. Capacity building is also the means to attain to enhance courtesy, understanding and caring customers, improving qualifications of staff and raining their attentiveness which are important factors to consider in developing organization's quality customer services (Araujo, *et al.*, 2015). The service organizations operating along the same supply chain are therefore expected to ensure internal communication of quality standards

among staff, their responsibility towards quality and how to achieve the standard which can be enhanced through capacity building to organization staff.

Creation and maintaining good customer reception area

Good reception area was reported frequently among the practices of quality customer services among service organizations. Professionals and authors such as Kotler and Keller (2012) emphasize focus on good and appealing reception area on the notion that reception gives first impression about the company and should affect positively the customers about the quality of organizations' services. In his study, Ntamamilo (2010) revealed that TRA created good customer reception area by having pleasing facilities such as benches, chairs, tables and front office staff. This practice is also augmented by continuous improvement of appearance of physical facilities (Manga, 2018).

In her report, Manga (2018) underlined that the quality customer service the NHIF used was ensuring continuous availability of facilities, equipment and tools which were visually appealing. The basis of using this practice is explained by Kotler and Keller (2012) that customers tend to use appearance of physical facilities used to provide services in making judgment about service quality. It means that service quality and even customer satisfaction is derived from the level at which the facilities appeal to customers. The use of this practice by service organization is also underlined by Mleje (2007). The author narrates that unlike physical products, services cannot be seen, tasted, felt, heard, or smelled before they are bought. Thus, customers who receive the service are not able to see exact result of the service before purchase and hence, they reduce uncertainty about quality of the service by looking at the quality signs or evidence by drawing inferences from the place, people, equipment, communication material, symbols, and price that they see.

Conclusion and recommendation

From this review, it can be concluded that service sector is one of the fast growing and very important sectors in Tanzanian economy whose contributions in GDP and employment creation cannot be overemphasized. Quality customer service practices is among the factor accounting for the fast growth of this sector as it enabled attraction, satisfaction and retention of customers thereby building strong market base which provide maximum assurance of ease marketing, consumption and generation of revenues. However, due to intangibility of the services, each organization tend to have own practices of quality customer services thereby leading into high variability and hence, poor quality service being provided to customers and leading into dissatisfaction. This problem can spread across the actors thereby affecting the SCM as the whole. Based on this review, this problem can be addressed thereby enhancing consistency of quality customer services and profitability through the SCM essentially by all actors focusing on the very common practices which are provision of education to customers, internal communication systems, capacity building to staff, creation and maintaining good customer reception area and continuous improvement of appearance of physical facilities.

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SESSION 4 [C2]
1330-1500/Wednesday, 16th Sept/2021, Meeting Room C
Contemporary Management
Session Chair: Dr Maige Mwasimba

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Perception Of Procurement Professionals On The Adoption Of Blockchain Technologies And Its Impact On Supply Chain Management In Tanzania

Abstract

The objective was to explore perception of procurement professionals on the adoption of blockchain technologies and its impact on supply chain management in Tanzania. Specific objectives included to establish the extent of adoption of blockchain technologies in supply chain management, to determine the relationship between blockchain technologies and total efficiency in supply chain management, and to explore opportunities of blockchain technologies in supply chain management. The study was designed as exploratory research. By use of a questionnaire, data was collected from a total of 100 respondents. Descriptive statistics was conducted for data analysis in SPSS. The study found that to the large extent respondents have considered blockchain applications in supply chain management in their organization and to the large extent, respondents were likely to adopt blockchain applications in supply chain management. To large extent, results showed that blockchain technologies enhance provenance in supply chain management and blockchain technologies enhance traceability in supply chain management. Lastly, the research established that improved traceability would be the greatest opportunity for the application of blockchain technologies in supply chain management. Substantial improvements would also be recorded in all other aspects of supply chain management including the areas of provenance, cost efficiency, time efficiency, and order fulfilment. In concluding the study affirmed high potential for the application of blockchain technologies in supply chain management. The study suggests more studies on the recognition of the key questions regarding the implementation of emerging technology by supply chain managers

Key Words: *Supply Chain, Supply Chain Management, Blockchain, Perception, Procurement*

1.0 Introduction

Each object consumed is accompanied by a story about people, places and materials traveling. But such tales are often overshadowed by sales marketing information, but at times they are horrific and utterly immoral (Steiner, 2015). The explanation these tales will be disguised is that many actual consumables move into the dynamic existence of global supply chains. Simultaneously the origin and traceability of global supply chains remain rudimentary as customers are still unable to trace output sources. These issues with the supply chain contributed to the blatant concern if the SCM problems were resolved feasible and effectively (Pilkington, 2016).

Consumer knowledge of SCM has been increasing, and centrally encompasses substance authenticity and ethical practices. Consumers are seeking more and more real transparency on where and how their goods are made. Regulators and consumers' watch dogs around the world have chosen to establish rules on the European Union (EU) to require suppliers to disclose more detail on their supply chain processes (Steiner, 2015).

Regulations now emerging and supply chain operators seeking to supply additional knowledge on goods and supply chains have proved difficult to achieve true clarity (Pilkington, 2016). Only minimal knowledge can be given, as well as supply chains, through modern technology such as radio-frequency identification tags (RFID) tags. This study argues that RFID systems are not capable of ensuring that goods are produced from point processing to use in production processes and the finished product are traceable (Crosby, Pattanayak, Verma & Kalyanaraman, 2016).

Traceability of products is not the only issue which SCM wants to solve. An important problem is the concerns about reliable partnerships between different SCM stakeholders. A Tanzanian importer does not fully trust a seller from another country to ship goods as described in the import contract, nor does the seller fully trust that they would be paid for if they ship a product. This leads to the need for major disruptions in the supply chain in order to guarantee origin and traceability.

The SCM industry's challenges need a transformative and reliable approach (Anjum, Sporny & Sill, 2017). This research suggests that blockchain technology will be the technology that can address all supply chain management issues effectively, particularly in terms of challenges relating to origin, traceability, and ethical standards.

1.1 Blockchain Technologies

Blockchain technology is a global shared directory, in which a network of colleagues keep copies of a true directory (Johnson, 2014). Johnson suggested the technology first (2014). As suggested by the white paper's title, the blockchain platform began as a technology to simplify payments electronically by removing the double-dollar issue (Johnson, 2014).

Blockchain is a reliable infrastructure that means that supply chain members are no longer in search of a trust-based company (Crosby, Pattanayak, Verma & Kalyanaraman, 2016). The technology now substitutes confidence with miners' agreement on the status of the distributed ledger and cryptographic safety features (Condos, Sorrell & Donegan, 2016). The fact that blockchain technology is

decentralized technology means that the amount of participants in the supply chain is not limited, as the number of participants grows, there is increasing hatching and the computational capacity required to perform device attacks. With this strength, as defined by Satoshi Johnson, the probability of attacks such as Sybil or 51 percent attacks is high (Johnson, 2014).

In order to eliminate dependence on trust-based business interactions, Blockchain technology is important as the source of total supply chain efficiency. The success of the distribution chain will still be reflected in a supply chain management scheme based on blockchain technology. This will lead to extreme productivity.

1.2 Supply Chain Management

The supply chain management relates to the management of movement from suppliers to ultimate buyers of products and services. The aim of the supply chain management is to achieve a sustainable competitive edge while at the same time generating and optimizing value for manufacturers and customers.

In an increasingly linked environment, where one commodity will have several raw materials from around the world, the supply chain management is important. A mechanism involving several parties and when there are many parties halfway around the world, loss of confidence is a typical issue (Upadhyaya, Sharma & Arun, 2017). The lack of confidence among supply chain management players has contributed to consideration of the future of global supply chain management.

In terms of blockchain technology, supply chain management will strengthen, particularly when the supply chain managers are entirely trusted, by removing dark areas of supply chain management. Implementing blockchain technology will revolutionize how companies communicate with the supply chain management system.

1.3 Supply Chain Management in Tanzania

Increasingly, Tanzania's economy depends on foreign trade and therefore on the management of the supply chain. Many Tanzanian traders who rely on the quality of the supply chain face the problems related to traceability, origin, cost efficiency, time efficiency and order satisfaction commonly experienced by the supply chain management worldwide. It is therefore a long overdue need to move from a trust based supply chain system to a reliable supply chain system (Belfrics, 2018).

In East Africa, Tanzania is the access point for countries such as Uganda, South Sudan, Rwanda and Burundi, which are landlocked. The establishment of an efficient supply chain management system does not only concern Tanzanian traders, but also those who prefer a robust Tanzania transport network in all other eastern African countries as well as in Central Africa. The development of an effective supply chain management system would also have a strategic edge (Belfrics, 2018).

1.4 Statement of the Problem

Different scholars have suggested the use of blockchain decentralized technology as a potential alternative to SCM's challenges. However, sufficient study on the implementation and usage of blockchain technology at SCM has not been carried out

(Condos, Sorrell & Donegan, 2016). In part, since the platform is fairly recent, first launched in 2014, the literature on supply chain implementations of blockchain technologies is inadequate (Johnson, 2014). Partly, insufficient research results from the strong emphasis placed on cryptocurrency applications of blockchain technology that overlook other potential blockchain technology applications such as its supply chain management applications (Condos, Sorrell & Donegan, 2016).

In addition to poor analysis, it is important to observe if the industry is considering the possibility of using blockchain technology to control supply chains, as blockchain technologies have been identified as being a potential solution for the SCM Industry (Crosby, Pattanayak, Verma & Kalyanaraman, 2016). The research looked at the level of the use of blockchain technologies by supply chain administrators.

Finally, for a number of reasons, SCM is especially critical for Tanzania. First, the economy of Tanzania is increasingly dependent on foreign trade and hence highly dependent on the management of the supply chain. Second, with other countries under the same group, including Nigeria, South Africa and Egypt, Tanzania is among the early adopters of technology in Africa. News recently on the acceptance of cryptocurrencies in sections of the world and potential applications for supply chain management. This makes it necessary to examine and understand the possibilities of blockchain technology that the country can deliver (Belfrics, 2018).

Overall, the use of blockchain technology in SCM exists with a large knowledge gap. The thesis attempted to supplement knowledge on supply chain applications of blockchain technologies.

1.5 Research Objectives

The general objective of the research is to perception of procurement professionals on the adoption of blockchain technologies and its impact on supply chain management in Tanzania. The specific objectives include:

- i. To establish the extent of adoption of blockchain technologies in supply chain management.
- v. To determine the relationship between blockchain technologies and total efficiency in supply chain management.
- vi. To explore opportunities of blockchain technologies in supply chain management.

2.0 Materials and Methodology

This section outlined the materials and research methodology as the method of achieving the purpose of the study. This includes the research design, sampling design, data collection instruments and data analysis

2.1 Literature Review

There are global attempts towards the implementation of blockchain technology in supply chain management. According to Upadhyaya, Sharma and Arun (2017) a prominent start up known as Blockverify has started to give a blockchain-technology-based solution to trace items through the supply chain. Weldon, Ghosh

and Herridge (2016) noted that alongside Blockverify, there are additional early solution testing for the implementation of blockchain technology in supply chain management. Everledger, uses a perpetual ledger for transaction history. The application is aimed at insurers, owners, claimants and law enforcement agencies. Another UK-based Provenance business builds confidence in SCM using blockchain (Weldon, Ghosh & Herridge, 2016). Such efforts are early evidence of technology blockchain utilized to resolve supply chain management difficulties.

The purpose is to leverage blockchain technology for the improvement of open, transparent, open and democratic processes through decentralized platforms, where all logistical actors may interact on an open platform. In this presentation, the Company's Chief Executive Officer noted that many of the problems have been raised in Tanzania on how this is annoying to buyers and marketers of goods, causing high supply chain costs and leading to price increases in the value chain. TMX offers a solution for online ordering and tracking of items to handle all such challenges in the supply chain management. The technology from blockchain bases enables purchasers to understand the amount of money needed throughout the various shipment stages and the projected duration (Capital Business, 2018).

Belfrics Global is a new firm which has been named Belfrics Global. In Africa, the business aims to open blockchain trade. Although there have been few debates on blockchain applications in agriculture, the technology provided the agricultural supply chain with unique prospects, as people worldwide strive for healthy food consumption. The food from the table to agriculture fields has to be traced. The business highlighted that supply chain tracking is one of the numerous uses of blockchain technology in agriculture (Belfrics, 2018).

The examples above are only samples of the tremendous possibility in blockchain technology use in supply chain management. Innovations and early technological implementation in Kenya show sufficient proof that the sector is poised for substantial disruptions which might redefine its whole effectiveness in the management of the supply chain. The buck lays nevertheless with the decision-makers in the supply chain industry.

2.2 Research Design

The thesis used the exploratory research design. This is a useful investigation which helps to decide the best study style, data collection method and topic selection (Creswell, 2014).

2.3 Sampling Design

The focus of the research was on Tanzania's supply chain managers. The thesis is more likely to research the supply chain and logistics firms in the world. The hypothesis is that the foreign trading and local logistics companies' specialist SCM must be well versed with the latest uses of specialized technology in the management of the supply chain. They will also be well aware of the problems that the supply chain management industry faces with current technology and the introduction of blockchain technologies. Moreover, the study also believes that companies in this space will indicate the degree to which blockchain technology in the supply chain management field are applied and in SCM regions, which are largely affected by

blockchain technologies. In general, the people should remember the effect of technology on supply chain quality and on supply chain management efficiency.

The research did not assess the country's population of logistics companies. Therefore, for determining sample size, the analysis considers using the Krejcie and Morgan formula. Sample size was calculated by the following formula;

$$n = \frac{N}{1+N.e^2} \quad n = \frac{134}{1+134*0.05^2} = 100$$

Where n = number of samples, N = total population=134; e = standard error of sampling (5%) is tolerated. By entering each value of the variable into the formula (1) above, obtained large sample size of 100 respondents. The sample size is in line with argument of Hair *et al* (2006) who state that a research study designed to reveal factor structures should have more observations than variables, and that the minimum absolute sample size should be 50 observations.

The study used the simpler random sampling method in order to cover as many supply chain managers across the whole world as possible with a sample size of 100 research participants. The analysis method was e-mailed in various companies across the country to supplier chain managers. The investigator even contacted supply chain administrators to remind them about the research goals.

The research used electronic means (google form) for the administration of the data collection tool to reach the sample size making the sharing of the tool simple for participants. Around the same time, the data collection tool was configured to achieve the best possible response rates by ensuring that the exercise is not timely (Creswell, 2014).

The research sampling requirements was based on procurement practitioners and all supply chain management sectors. The report reached Procurement and Procurement Technicians Board to access the population and the sample (PSPTB). This allowed the researcher to gather data from people who think that the supply chain management in Tanzania is in daily interaction..

2.4 Data Collection Methods

The thesis used primary data. A questionnaire was used to gather data. The questionnaire has been broken down into four parts that are directed by the research goals. All questions regarding the questionnaire were concluded with predicted answers on a Likert scale. Close-ended questionnaires allow for quantitative analysis. Google Forms were used to manage the tool electronically. The objective is to facilitate access to the tool by respondents while facilitating simple interaction with the questionnaire through a hyperlink. Taking into account the targeted example, the use of Google Forms made it possible to manage the data set effectively.

2.5 Data Analysis

The completed questionnaires were carefully analyzed to ensure that the data obtained are correct and compatible with additional evidence collected. The pre-processing of the data was carried out by editing mistakes and failures and, where possible, making corrections. Data were evaluated by coding by variables to minimize the response from respondents to a limited number of groups in the

efficiency study. The data were categorized according to the general characteristics and attributes after coding was completed. The raw data were then compiled and tables for further study as statistical tables. The Statistical Package for Social Sciences (SPSS) version 25 was used to aid in the statistical analysis of the data.

3.0 Results and Discussion

This section deals with the presentation of results and discussions of the findings. The section is organized based on the following research objectives: demographic information; the extent of adoption of blockchain technologies in supply chain management; potential impact of blockchain technologies in supply chain management and opportunities of blockchain technologies in supply chain management. The discussion of the findings was based on the aforementioned objectives.

3.1 The extent of adoption of blockchain technologies in supply chain management

The study sought to establish the extent of adoption of blockchain technologies in supply chain management. The key ranged from 1 to 5, where 1 represent Not at all, 2 = to small extent, 3 = moderate extent, 4 = large extent and 5 = very large extent. Based on the mean values, mean scores of less than 1.5 represents not at all; mean scores of 1.5 but less than 2.5 represents to small extent; mean scores of 2.5 but less than 3.5 represents moderate extent; mean scores of 3.5 but less than 4.5 represents large extent; mean scores of 4.5 to 5 represents very large extent. Table 1 shows the findings with regard to the extent of adoption of blockchain technologies in supply chain management.

Table 1: The extent of adoption of blockchain technologies in supply chain management

Descriptive Statistics			
	N	Mean	Mode
To what extent are you familiar with blockchain adoptions in supply chain management?	100	3.0	3
To what extent have you considered blockchain applications in supply chain management in your organization	100	4.2	4
To what extent are you likely to adopt blockchain applications in supply chain management within the next 2 years	100	4.2	5
To what extent are the current SCM technologies likely to be disrupted by blockchain technologies?	100	4.1	5
Valid N (listwise)	100		

Source: Field Data 2021

Data in table 1 shows that, the mean and mode for statement stated to what extent are you familiar with blockchain adoptions in supply chain management was found to be 3.0 and 3 correspondingly. The study found that to the large extent respondents have considered blockchain applications in supply chain management in their organization (Mean 4.2, Mode = 4). The finding shows that majority of respondents indicated to the large extent likely to adopt blockchain applications in supply chain management within the next 2 years (Mean = 4.2, Mode = 4). To the large extent, findings indicated that current SCM technologies likely to be disrupted by blockchain technologies (Mean = 4.1, Mode 4). Research in blockchain implementations for supply chain management is really recent in that there were only few early starters, including Chronicled®, Everledger®, Skuchain®, Blockverify®, ubirch® and Provenance®. The results were significantly new. The thesis also considered that the low recognition for SCM blockchain applications was because much previous studies focussed on Blockchain technology cryptocurrency applications masking all other applications.

3.2 Potential impact of blockchain technologies in supply chain management

The study sought to determine the Potential impact of blockchain technologies in supply chain management. The key ranged from 1 to 5, where 1 represent Not at all, 2 = to small extent, 3 = moderate extent, 4 = large extent and 5 = very large extent. Based on the mean values, mean scores of less than 1.5 represents not at all; mean scores of 1.5 but less than 2.5 represents to small extent; mean scores of 2.5 but less than 3.5 represents moderate extent; mean scores of 3.5 but less than 4.5 represents large extent; mean scores of 4.5 to 5 represents very large extent. Table 2 shows the findings with regard to Potential impact of blockchain technologies in supply chain management.

Table 2: Potential impact of blockchain technologies in supply chain management

Descriptive Statistics			
	N	Mean	Mode
To what extent would blockchain technologies enhance provenance in supply chain management?	100	3.8	4
To what extent would blockchain technologies enhance traceability in supply chain management?	100	4.0	5
To what extent would blockchain technologies enhance transparency in supply chain management?	100	3.6	4
To what extent would blockchain technologies enhance time efficiency in supply chain Management?	100	3.7	4
To what extent would blockchain technologies enhance order and transaction fulfilment in supply chain management?	100	3.5	4
Valid N (listwise)	100		

Source: Field Data 2021

The statistical table above showed that, to what extent would blockchain technologies enhance provenance in supply chain management scored mean of 3.8 and mode of 4 while to what extent would blockchain technologies enhance traceability in supply chain management had mean of 4.0 and mode of 5. To what extent would blockchain technologies enhance transparency in supply chain management scored mean of 3.6 and mode of 4. Also, the statement stated to what extent would blockchain technologies enhance time efficiency in supply chain management scored Mean of 3.7 and Mode of 4. Yet, to what extent would blockchain technologies enhance order and transaction fulfilment in supply chain management scored Mean of 3.5 and Mode Of 4. The study showed that cost effectiveness, provenance, traceability, time efficiency and order fulfillment are key factors in the overall performance of the supply chain. This showed the relevance of working on blockchain technology as core breakthrough fields in order to improve overall productivity in the supply chain.

3.3 Opportunities of blockchain technologies in supply chain management.

The study sought to explore opportunities of blockchain technologies in supply chain management. The key ranged from 1 to 5, where 1 represent fair, 2 = to acceptable, 3 = good, 4 = excellent and 5 = superior. Based on the mean values, mean scores of less than 1.5 represents fair; mean scores of 1.5 but less than 2.5 represents to acceptable; mean scores of 2.5 but less than 3.5 represents good; mean scores of 3.5 but less than 4.5 represents excellent; mean scores of 4.5 to 5 represents superior. Table 3 shows the findings with regard to opportunities of blockchain technologies in supply chain management.

Table 3: Opportunities of blockchain technologies in supply chain management

Descriptive Statistics			
	N	Mean	Mode
How are supply chain management costs under the current SCM technologies?	100	4.1	5
How effective are the current SCM technologies in enhancing provenance?	100	3.9	4
How effective are the current SCM technologies in enhancing traceability?	100	4.2	5
How effective are the current SCM technologies in enhancing transparency?	100	4.1	5
How effective are the current SCM technologies in enhancing time efficiency?	100	4.2	4

How effective are the current SCM technologies in enhancing order and transaction fulfilment?	100	4.3	4
How do you rate total supply chain efficiency under the current technology as applied in your organization?	100	4.5	5
Valid N (listwise)	100		

Source: Field Data 2021

According to the statistical table above, the mean and mode found to be 4.1 and 5 respectively for statement stated that how are supply chain management costs under the current SCM technologies. Statement stated how effective are the current SCM technologies in enhancing provenance had mean of 3.9 and mode of 4 while How effective are the current SCM technologies in enhancing traceability had mean of 4.2 and mode of 5. Statement stated how effective are the current SCM technologies in enhancing transparency found to have mean of 4.1 and mode of 5. Mean and mode found to be 4.2 and 4 respectively for statement stated that How effective are the current SCM technologies in enhancing time efficiency. For the statement stated How effective are the current SCM technologies in enhancing order and transaction fulfilment had mean of 4.3 and mode of 4. Lastly, the respondents rated “superior” (Mean of 4.5 and mode 5) for the statement asked How do you rate total supply chain efficiency under the current technology as applied in your organization. This is because of the deep confidence in the traceability improvements of the blockchain technology as a key challenge for supply chain administrators. In other areas such as cost efficiency, time efficiency, fulfillment of orders and origin, significant changes will also be reported. The findings of the report coincided with the prevalent views on supply chain management blockchain implementations. The main field of effect of the technologies is traceability since a commodity can be tracked back to the manufacturers. However, concerns like product traceability through a production process do prevail and could need different solutions.

4.0 Conclusions and recommendations

This chapter consists of a conclusions relating to the research objectives, recommendations on the perception of procurement professionals on the adoption of blockchain technologies and its impact on supply chain management in Tanzania and finally areas that need further research

4.1 Conclusions

The study found that blockchain is a key component in the operation of the supply chain. However, the latest SCM solutions adequately tackle many of the problems of origin, traceability, cost-effectiveness, time management and traceability all essential to complete efficiency of the supply chain. This was based on the conclusion that most respondents considered the present degree of overall supply chain productivity to be outstanding. The study also showed that creativity and the use of emerging technology help to address inefficiencies in the management of supply chain. The

relationship between blockchain technology and overall delivery quality is solid. The respondents thought it would significantly increase traceability if Blockchain systems were adopted. Current technologies are being utilized in the blockchain technologies to improve the traceability of products, especially with regard to organically manufactured foods. The use of blockchain technology enable the customer to evaluate the food source and actively decide whether it is safe and whether the product is ethically made. In general, the report concluded that the use of blockchain technology would significantly affect the overall productivity of the supply chain. This requires consideration of the implementation of technology in the management of supply chain. In order to do this, further analysis should be focused on the strategic strengths and shortcomings of blockchain technology.

4.2 Recommendations

This study suggests that the supply chain administrators of Tanzania should incorporate blockchain technology. In order to make sure technology is suited to supply chain management requirements, the early introduction of innovations will enable supply chains managers to control advances in technologies. Around the same time, Tanzania's supply chain managers would have a new competitive lead, as innovations were introduced early on and the supply chain would be made more effective. The report suggests more studies on the recognition of the key questions regarding the implementation of emerging technology by supply chain managers. The study should concentrate on gathering technical opinions from supply chain operators. Such opinions should be used in the architecture of supply chain management blockchain applications.

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Elizabeth Salvatory Mtunga, Rosemary Mathew, Lusajo George, Hamisi Mwakalinga, Dorah Konga, Maige Mwakasege Mwasimba

Single Source Amplified Supply Chain Risks During Covid19 Pandemic On The World Economy: A Literature Based Study

Abstract

The objective of this paper was to determine how single sourcing strategy amplified supply chain risks during the corona virus pandemic and the extent to which single sourcing strategy has influenced chain supply in the world economy.

The methods used in the study to reach to final findings were observation and documentations in collection of data. Whereby in observation

The findings from this study shows that, single sourcing strategy was preferred since it increases administrative efficiency, development of new technologies for

production of more advanced goods since there is a good relationship and communication between the supplier and buyer, easier to monitor the performance of supply and also supplier's product more efficient and quality goods. despite the advantages associated with single sourcing strategy, it is associated with severe challenges such as increase in dependency on a single supplier thus when the supplier is exposed to any uncertainties, these risks will directly affect the buyer due to depending on single supplier. The worst part is that the buyer may be limited to receive any goods especially during occurrences of natural disasters such as pandemic diseases, floods, war and terrorism. The other risk of using single sourcing strategy is when the supplier does not have enough recourse to supply and meet the needs of the buyer; therefore, in such situation the buyer may fails to obtain their demands.

The study recommends that in order to overcome the problem and enhance an efficient supply chain firms should adopt multiple sourcing strategy that involves more than one supplier, which will enable the buyer to negotiate the prices of the products and have variety of goods in the supply chain thus minimizing supply chain risks.

KEY WORDS: Single Source, Covid19, Supply chain Risks, Supply chain, Supply chain Management, Supply chain Risk Management.

Gerald Wakisa Ndowera & Andrew Mushi

Analysis on The Barriers For Implementation and Sustainability Of Ppp Projects In Malawi Transportation Sector: A Case Of Malawi Cargo Centres Limited (Mccl

Abstract

Despite the significance of using PPP model in implementing the major projects, implementation of PPP projects has been facing difficulties which lower their effectiveness in project implementation. The study aimed at analyzing the barriers for the implementation and sustainability of PPP projects in Malawi transportation sector. The study specifically aimed at assessing the relationship between government and the investor towards the accomplishment of MCCL targets, determining the capacity of the parties involved in the MCCL PPP towards the accomplishment of desirable targets as well as assessing the effectiveness of Malawian PPP regulations and enabling policies towards the accomplishment of MCCL targets. The study used the case study research design whereby MCCL was the case study itself. The study involved the sample size of 20 respondents; purposive sampling technique was used in identifying the study respondent. Interview was used as the primary data collection where by data was collected, categorized, coded and analyzed descriptively basing on the respondent opinions. The results from the field show that there is weak relationship between the parties involved in the MCCL PPP. The results from the field also show that the capacity of the members involved in the PPP, in accomplishing the PPP

objectives, is low especially in performing the financial responsibilities. The field results show that the Malawian PPP regulations and enabling policies towards the accomplishment of MCCL targets are not effective in ensuring successful implementation of PPPs in transportation sector of Malawi. All of the aspects of ensuring successful operations of PPP are not adhered to in the implementation of MCCL PPP that's why the project is facing difficulties in accomplishing its target. The study recommends for improvement of the policies and regulation guiding the PPP implementation as well as introduction of Commission of PPP Arbitration.

Key words: PPP projects, Transportation sector

SESSION 7: PARALLEL SESSION
11-1230/THURSDAY 16TH SEPT 2021

SESSION 7

A3 Finance, Economics and Corporate governance **Venue A**

B3 Supply Chain, Marketing and Entrepreneurship **Venue B**

C3 Contemporary Management **Venue C**

**SESSION 7 [A3]
11-1230/Thursday, September 16th, 2021, Room A
Finance, Economics, Corporate governance
Session Chair: Leonard Mwangike**

Leonarda Mwangike³

Supply Chain Management and Developing Economies

Abstract

With the rise of globalization the role and importance of supply chain management has increased. Global supply chains commonly extend between industrialized and developing countries. Differences in economy, legislations, regulations and standards pose difficulties in managing such supply chains. Developing countries, usually playing the role of raw material suppliers or manufacturers, face problems which affect the performance of supply chains. Common problems with developing countries include instability of governments and policies, corruption, labor intensive industries, deteriorated infrastructure and limited use of new technologies, underemployment, child labor, and low education level of the population. Due to customer pressure and legislation in industrialized countries, sustainability of the supply chain is a main goal to achieve. Sustainable supply chain management is defined as “the management of material, information and capital flows as well as cooperation among companies along the supply chain. This paper examines the supply chain and sustainability from Tanzania perspective.

Gladness Livigha, Ellygritha Iriya, Angel Gabriel, Mboni Rashid, Mussa Mbugi, Maige Mwakasege Mwasimba

The Impact Of Quality Customer Service In Supply Chain Management; The Literature Review

Abstract

This article intends to assess the impact of quality customer service in supply chain management as it is a key element given utmost attention by managers of enterprises in pursuit of excellence in competition. Strategies of different scopes are used to improve customer service by various enterprises. A detailed analysis of the study was conducted with the intention of examining the role of quality customer service in supply chain management and to analyze factors affecting quality customer service in supply chain management. The article also incorporates details of how the results obtained from literary devices were used and suggested measures to improve customer service quality in the supply chain management of an enterprise. The methodology used in writing the article is based on literature as reviewed by the authors. The analysis of the supply chain management model is showing how well

³ Supported by Sustain Project

could supply chain be done to emphasize the mission. The discussion provides several of the inter-twining ideas on services through the supply chain management towards customer's satisfaction. Later, the research methodology is discussed.

Key Words – *Quality, Customer Service, Quality Customer Service, Supply Chain, Supply Chain Management.*

1.0 Introduction

Quality customer service has important place in customer service operations. For this case, quality customer service is everywhere along the supply chain operations since it affects the way it begins when products are sold to the customers and it is there when products are delivered to the final consumers (Stanley & Wisner, 2001). Through the processes of manufacturing, distributing and selling finished goods, companies should focus their efforts on supply an excellent service to their customers and answering their questions as well as counting on their feedback to improve their operations. In other words, supply chain management is directly related to a company's customer service and if the companies have great customer service, it can be a part up on the competition. By enhancing supply chain operations with proper customer services, companies can meet and even exceed customer expectations. Quality customer service is one of the most important elements of the supply chain management. It is through quality customer service that customers get a feel of the products and business that is selling it and some companies do not think quality customer service has anything to do with supply chain; nothing could be further from the truth. In fact, supply chain is only complete when the product has reached the customer, for this case, it is from quality customer service that the company gets to hear from the customers (Agus, 2015).

The main aim of supply chain management is to build a satisfied customer by coordinating all activities of the supply chain into a seamless process. An important element of supply chain management is that it is completely customer driven. In the same note, manufacturers produced standardized products that are pushed through the supply channel to the consumer (Cox, 1999). Through the channel partnership of suppliers, producers, wholesalers, and retailers along the entire supply chain who work together toward common goal of creating customer value, in turn supply chain allows companies to respond with the unique product configuration demanded by the clients. Customers are expecting to get better quality services in delivery times, timely communication and quality of product transported that means the companies have to develop a reliable supply chain infrastructure as well as meet customer service experience expectations. It is very likely that company has with better quality customer service along supply chain operations could have better sales than those who barely care about their relationship with their customers (Chadha & Gagandeep, 2013).

1.1 Definitions of Key Terms

1.1.1 Supply chain

Supply chain is referred to as interconnected set of relationship from supplier toward the customers via several intermediate steps including manufacturing, sourcing, warehousing, and transportation of finished goods from firms to the final consumers. This interaction makes supply chain to be considered as the network of companies depending on and influencing each other. Supply chain comprises some components, these includes customers, retails, distributors, supplies and manufacturers/producers. These interactions in the supply chain activities are aiming to add value to the chain and satisfy customers needs while the firm or company focusing on generating profits (Habib, 2011). Supply chain of a company constitutes of different department, ranging from procurement of materials to customer service.

1.1.2 Supply chain management

Supply chain management refers to the interrelationship among the key business player from point of production to the end user through the supplies of the services, information and goods that can add value to the final users and other key supply chain stakeholders (Cooper et al, 1997; Lambert et al, 1998). Some issues to consider when managing supply chain management include outsourcing, customer and supplier relationship, integration, partnership, information technology and integration.

1.1.3 Customer service

Customer service can be defined as a provision of service to customers before, during and after a purchase and usage of a products or services made by a customer whether in the restaurant, banks or supermarkets. In the same vein, also customer service is considered as a means to take care of the customer's requirement by providing good, professional, supportive, and quality assistance before, during and after the customer's purchase (Parasuraman, Zeithaml & Berry, 1994). Customer always expects to receive quick and resourceful responses to their queries. Often a customer wants to be treated with respect, care and expects politeness and courtesy from the service providers. For this case, a satisfied customer will return again and again and will provide more business to the company along with some customers are kind enough to give positive reviews on the companies email or social media (Lewis & Gabrielsen, 1998).

1.1.4 Customer Loyalty

Customer loyalty is the highest incentive for a firm because it translates into increased revenues. "Management provides practical answers for dealing with the complexity of supply chain management in order to gain/maintain client loyalty." Arch G. Woodside (1990).

While the emotional link of customer loyalty may not reflect on your business's financial line, ignoring it will swiftly reveal how critical customer loyalty is to your organization's survival. (Flavio Martins, 2014)

1.1.5 Customer Retention

Customers will make the brand a part of their lifestyle and utilize the brand's products and services more frequently if supply chain management is of high quality. Consumers are more likely to work with a brand with whom they have had a positive experience than to seek out a new brand with which to engage.

When the end-consumer is satisfied, high retention is attained, which necessitates the entire supply chain to comprehend the consumers' needs.

It is vital to identify the end-customer set and arrange them according to their demands in order to comprehend consumer requirements (as opposed to other criteria such as product similarity). The ultimate consumer is the end-customer; the rest of the supply chain does not receive payment (Jones & Clark, 1990).

1.1.6 Customer satisfaction

The adoption of supply chain management methods is crucial to the delivery of high-quality goods and services while also ensuring customer satisfaction. Customers expect to receive product configurations and services that are tailored to their demands in today's marketplace. Supply chain management's main purpose is to bring all of the activities together.

1.2 Objective of the Study

1.2.1 General Objective

The general objective of the proposed study is to assess the impacts of quality customer services towards supply chain management in business organizations around the world.

1.2.2 Specific Objective

The study was expected to address the following objectives in specific;

- i. To assess the evolution of quality customer service in supply chain management
- ii. To identify the role played by good customers in supply chain management
- iii. To examine the challenges affecting quality customer service in supply chain management
- iv. To identify ways to improve supply chain management through quality customer service.

2. RESEARCH METHODOLOGY

2.0 Introduction

This chapter will cover the areas where the study will take place, methodology design and rationale. In addition, this chapter will discuss how the data will be collected and analysed. Furthermore, this chapter will include validity and reliability, and in the end, discuss how the researchers will employ ethical consideration.

2.1 Research design

This is basically the road map which determines ways to reach the destination. Moreover, this can also be defined as a framework used as a guide to collect and analyse data (Lacobucci & Churchill 2009). This study will combine both qualitative and quantitative research approaches.

Table 2.1 Summary of Research Objectives and Research Design

Research Objective	Research Design
<ul style="list-style-type: none">• To identify the role played by qualitative customers service in supply chain management	<ul style="list-style-type: none">• Quantitative approach and Qualitative approach
<ul style="list-style-type: none">• To examine the challenges affecting quality customer service in supply chain management	<ul style="list-style-type: none">• Quantitative approach and Qualitative approach
<ul style="list-style-type: none">• To identify ways to improve supply chain management through quality customer service.	<ul style="list-style-type: none">• Quantitative approach and Qualitative approach

2.3 Data collection methods / data sources

As mentioned above, the researcher will employ the phenomenology quantitative and qualitative methods. The researcher then used the Case study model where Data was collected from various sources and compiled using the details to create a bigger conclusion; the case study model provides an in-depth look at a particular study. As the subject is a business or organization, the aim is to analyze specific issues within the boundaries of a specific environment.

2.4 Conclusion/Summary

This chapter presented the research proposal that identified the methodology design, data collection, and analysis that will be utilized.

3. LITERATURE REVIEW

3.0 The link between quality customer service and supply chain management

A customer is a key figure in the supply chain, a supplier's decision is mostly affected by the needs, values and opinions of the customers.

The role of the customers is the most priority in any business, all businesses run on the services it provides and also its customer feedback.

In 'How the strongest supply chains protect what customers cherish most', Constantine G. Vassiliadis and Glen Goldbach stated the importance of the customer in any organization means that the businesses should build their supply chain flexibility and durability around them.

That is, An Organization with no supply network immune to interference or disruption is to safeguard their supply chains. According to Mr Vassiliadis and Mr Goldbach the best way to do this successfully is by protecting what customers in supply chains value. And this requires businesses to understand what consumers value about them.

The need for long-term relations between Customers and Suppliers was suggested by the Bullington (2005), This literature aimed at applying results of research on families (customers) to supply chain management in order to improve critical business disruptions. Bullington made a survey and interviews to more than 6,000 families over 20 year and summarized characteristics of these families so as to create a basis model for supply chain.

This research model was compared to previous models used in supply chain and it was stated that the model provided three potential contributions to the supply chain that is conceptual framework for customer and supplier relations, additional element of a principle centered relation and emphases on appreciation or positive feedback.

3.1 Evolution of service quality dimensions' concept

Due to the inherent intangible character of services, goods, settings, competition activity, and consumer expectations, many marketing scholars have treated service quality as a challenging topic to define and quantify. Researchers and practitioners generally agree that service quality is a nebulous and abstract concept that is difficult to define and assess (Bateson & Hoffman, 2011; Kasper, 2006; Kotler & Armstrong, 2010; Parasuraman, 1985; Sower, 2011).

The argument is based on two competing viewpoints: Nordic (Scandinavian or European) and American schools, where the Nordic school defines service quality in broad categorical terms, whereas the American school defines service quality in specific ones Greenrooms (1984), for example, includes features of technical and functional quality, as opposed to the argument of (Brady & Cronin, 2001; Pollack, 2009) The five dimensions of the American school are reliability, responsiveness, assurance, empathy, and tangibles.

3.2 Measuring Quality Service (The Nordic School)

Gronross (1984) categorized service quality into two categories namely a technical or outcomes dimension and a functional or process-related dimension **Technical quality:** What the customer

receives as a result of interactions with the service firm (what service is provided such as meals in a restaurant). **Functional quality:** How the service is provided; the expressive nature of the service delivery such as courtesy, attentiveness, promptness. It focuses in the process of service delivery.

Gronroos (1984) considers that the customer perception of service will not only be the outcome of a service (technical dimension) process in which the resources are used, but also the manner in which a service is performed (functional dimension). But he also and more often importantly, perceives how the process itself functions.

The basic principle in his model is that service quality is dependent on the comparison of two variables: the expected service from customers and the actual service as perceived by them (Grönroos, 1984:36).

3.3 The five dimensions of service quality measured by the SERVQUAL Instrument

Zeithaml, Parasuraman and Berry (1988, 1991, 1985) identifies the principal dimensions (or components) that regardless of the type of service, customers basically use similar criteria in evaluating service quality and proposes a generic scale, known as SERVQUAL. The model SERVQUAL is without a doubt the most widely used and tested method to measure customers' perceptions of service quality (Bateson & Hoffman, 2011), The model's developers originally identified ten dimensions of service quality (see Table 3.1)

Table 3.1 Determinants of service quality

Determinant	Example of evaluative criteria
Tangibility	Appearance of physical facilities and personnel
Reliability	Performing services right the first time
Responsiveness	Willingness and ability to provide prompt service
Communication	Explaining service to customers in a language they can understand
Credibility	Trustworthiness of customer-contact personnel
Security	Confidentiality of transactions
Competence	Knowledge and skill of customer-contact personnel
Courtesy	Friendliness of customer-contact personnel
Understanding Customer	Making an effort to ascertain a customer's specific requirements
Access	Ease of contacting service

Source: Parasuraman et al. (1985)

However, after extensive testing and retesting, some of the dimensions were found to be auto correlated and hence reduced to five, namely - **reliability, responsiveness, assurance, tangibles** (tangibles include the original communication, competence, credibility, courtesy and security) and **empathy** (which includes the original access and understanding/knowing the customers). These five dimensions are thought to represent the dimensions of service quality across a range of industries and settings. They are briefly elaborated in the following table.

Table 3.2 Refined determinants of service quality

Determinant	Examples of evaluative criteria
Reliability	Ability to perform the promised service timely, responsibly ,in trustworthy manner
Responsiveness	Sensitive to react to customers needs and provide prompt service
Assurance	Guaranteed employees skills and courtesy and their ability to convey trust and confidence among their customers
Tangibility	Physical representation of service through facilities, equipment, written materials and personnel
Empathy	Caring, personalized knowledge of customers' requirements.

Source: Parasuraman et al. (1985)

Reliability: delivering on promises by doing what you say you are going to do when you said you were going to do it. This dimension is consistently shown to be the most important determinant of perceptions of service quality (Wilson et al., 2008), It includes keeping schedules or appointment times, completing tasks on time, and ensuring that outcomes are met.

Responsiveness: Responding quickly, promptly, rapidly, immediately, instantly to customer requests, questions, complaints and problems. It includes the length of time a customer has to wait for assistance, answers to questions or attention to problems. The flexibility and ability to customize service to customer needs, reflect customer's point of view, not companies (Wilson et al., 2008).

Assurance: Service providers are expected to be the experts of the service they're delivering. SERVQUAL research showed it's important to communicate that expertise to customers. A highly skilled service provider that fails to win customers confidence, will in have an effect on the customers' assessment of that provider's service quality. Customers will then consider the provider service quality low. Instead, the company has to seek to build trust and loyalty between key contact people and customers (Wilson et al., 2008). Thorough communication of competencies, help providers manage customer expectations hence influence their service quality assessment in advance.

Tangibles: representing the service physically through employees' appearance, uniforms, equipment, and on-site work areas such as closets, service offices, presentable. Most companies would however, combine this dimension with another dimension to create a service quality strategy (Wilson et al., 2008), to avoid the danger for providers to make everything look nice, and then fall short on RELIABILITY or RESPONSIVENESS.

Empathy: Having personal knowledge of customers' requirements, needs (customer interactions). Firms that are empathetic to their customers have a definite advantage than its rivals. In business firms, customers want firms to understand their industries and issues (Wilson et al., 2008).

The above five distinct dimensions, capture aspects of all original ten dimensions of the concept of service quality with which the scale development began (Parasuraman et al., 1985).

3.4 Models of quality customer service used in supply chain management

The service quality hypothesis, according to researchers, is based on customer satisfaction and product quality (Brady & Cronin, 2001). There are a variety of service quality models available, however researchers are divided on the validity of these models and metrics. Gronroos made the first attempt in 1915 to measure service quality.

In 1985, Parasuraman, Zeithaml, and Berry proposed SERVQUAL, the most widely used and well-known model. They proposed 10 dimensions for service quality at first, but after some preliminary research in 1988, they reduced the model to five dimensions. The SERVQUAL model was developed on the basis of the five dimensions but discovered that there is a discrepancy between perception and expectation of service quality.

Some academics feel that assessing the gap between expectation and perception cannot provide a superior assessment of service quality. As a result, Cronin and Taylor recommended the SERVPERF model in 1992, which was based on service quality measurement performance. In terms of total service quality measurement, SERVPERF included higher variance than SERVQUAL. In addition, Dobholkar, Thorpe, and Rentz examined SERVQUAL in 1996 and found that it was not accurate.

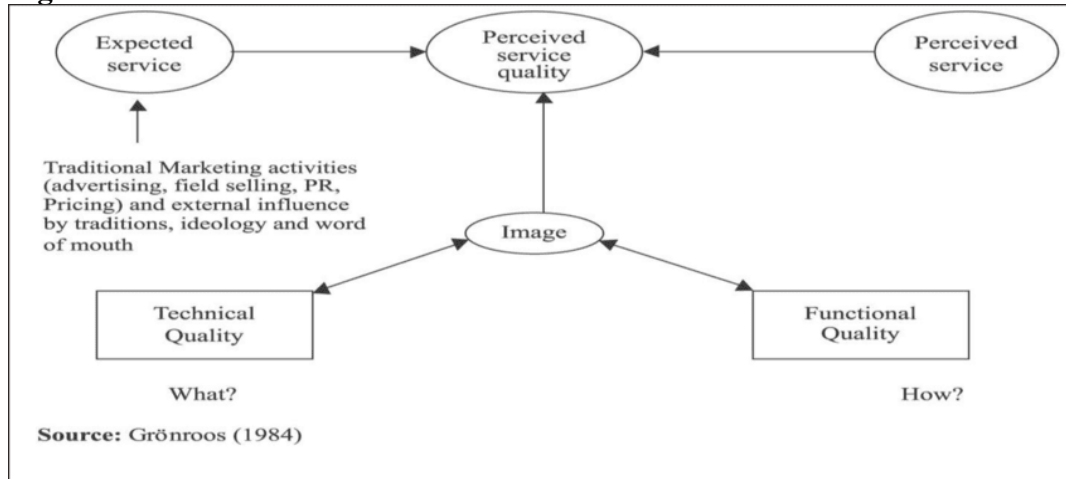
Some areas, such as the retail store setting, have been altered. They presented a new business model known as Retail Scale of Service Quality (RSQS). In 2001, Brady and Cronin proposed the Hierarchical and Multidimensional Service Quality Model. They integrated the three-component model of Rust and Oliver (1994) with the multilevel model of Dabholkar et al. (1996).

3.5 Discussion

3.5.1 The Nordic Model

By contrasting perceived performance and expected service, the Nordic model is founded on the disconfirmation paradigm. This was the first attempt to assess service quality. Gronroos' model was broad and didn't include any methods for assessing technical and functional excellence. The Three-Component Model was developed by Rust and Oliver (1994) to refine the Nordic model. They propose three components: service product (technical quality), service delivery (functional quality), and service environment, but they did not test their model, and only a few sources of support have been found.

Figure 3.1 The Nordic Model



Nordic Model, Gronroos (1984)

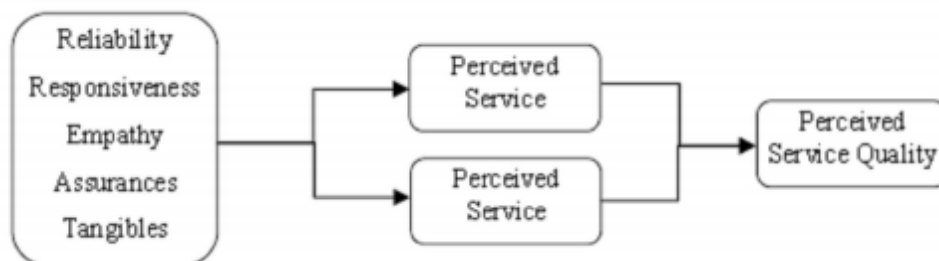
3.5.2 SERVQUAL Model

Parasuraman, Zeithaml, and Berry (1985) developed a novel model of service quality measurement based on the disconfirmation paradigm. They strive to compensate for the Nordic model's flaws by proposing a new method of assessing service quality. They propose using the gap or difference between expected and provided levels of service for measuring service quality perception with five variables in the SERVQUAL model: Reliability, responsiveness, assurances, empathy, and tangibility are all important qualities.

SERVQUAL is an analytical technique that can assist managers in discovering gaps between variables that affect the quality of the services they are providing (Seth, Deshmukh, & Vrat, 2005). Although it is an experimental study and does not offer a clear assessment method for detecting gaps at different levels, this model is the most commonly utilized by marketing researchers and scientists.

This model has been refined throughout time, and some argue that just performance should be examined using the SERVPERF model in order to determine service quality perception (Cronin & Taylor, 1992). Years of experience with this model have revealed that SERVQUAL factors are inconsistent and that it is not comprehensive for many applications (Dabholkar, et al., 1996; Shahin & Samea, 2010)

Figure 3.2 SERVQUAL Model

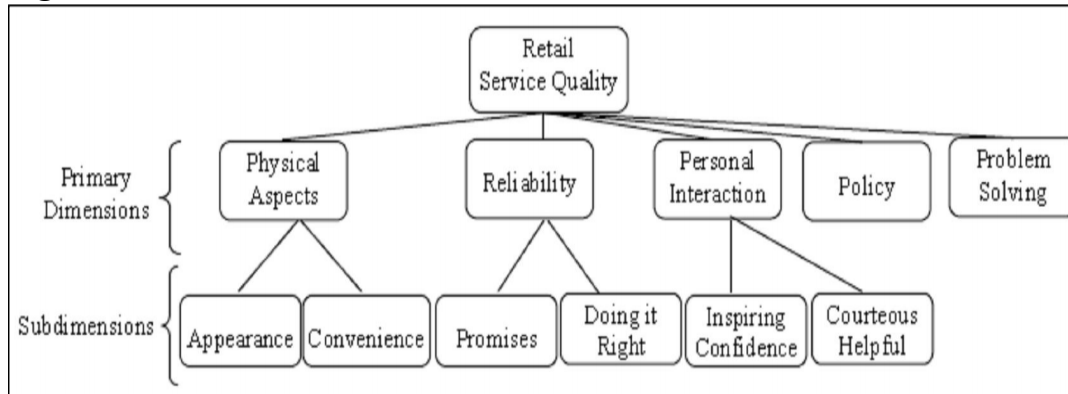


SERVQUAL model by Parasuraman et al., (1985)

3.5.3 Multilevel Model

Because SERVQUAL components were inconsistently reported, Dabholkar, Thorpe, and Rentz suggested the multilevel model for service quality in 1996. They propose that service quality models be divided into three stages: general views of service quality, primary dimensions, and subdimensions. This model was created to assess the quality of service in a retail establishment. Although multilevel proposes a novel structure, it must be generalized for other locations and take into account the impact of other aspects such as the environment, price, and so on. Furthermore, there are no distinguishing characteristics or variables that define the sub dimensions.

Figure 3.3 The Multilevel model



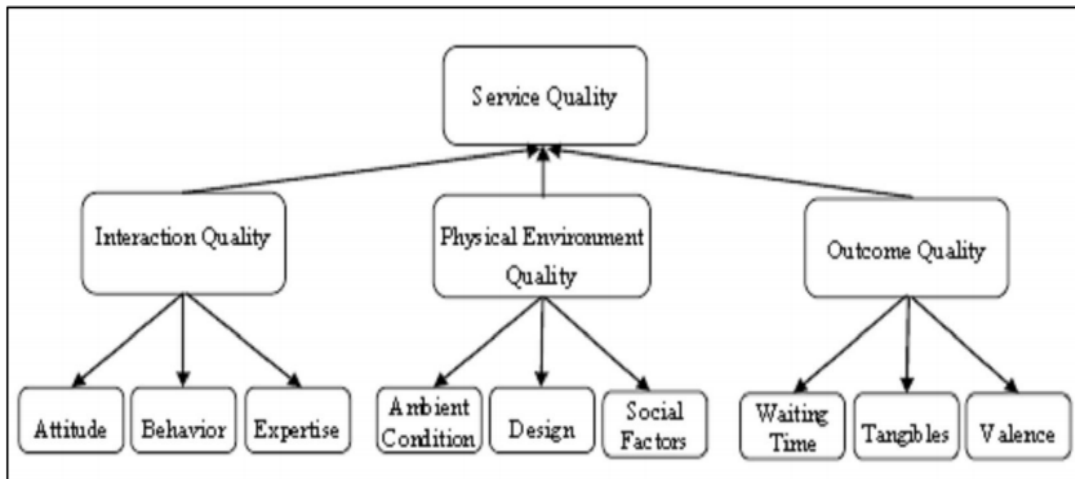
The Multilevel model by Dabholkar et al., (1996)

3.5.4 Hierarchical Model

Brady and Cronin proposed a new model in 2001 by integrating four models. SERVQUAL (Parasuraman et al., 1988) was improved by defining what was required to be dependable, responsive, empathic, assured, and tangible. Brady and Cronin adopted a three-dimensional service quality perception based on client evaluation: 1. Quality of Interaction (i.e., functional quality) 2. Quality of the Physical Environment 3. Quality of the final product (i.e., technical quality) (Gronroos, 1984; Rust & Oliver, 1994; Gronroos). They also accept multidimensional service quality perceptions and multilevel service quality perceptions (Dabholkar, et al., 1996). Interaction, environment, and outcome are the three primary level dimensions of service quality in this conceptualization, each with three sub dimensions: Interaction (Attitude – Behavior – Expertise), Environment (Ambient Conditions – Design – Social Factors), and Outcome (Waiting Time – Tangibles – Valence).

This hierarchical model and SERVQUAL components described into sub dimensions have resulted in a novel model. Brady and Cronin have refined the framework for service quality and broken the stalemate in this theory. It establishes a precise definition of service quality perception as well as a method for measuring service quality. Service outcomes were not clearly considered in SERVQUAL measurement, although Brady and Cronin's model appears to fill this gap (Pollack, 2009).

Figure 3.3 Hierarchical model



Hierarchical model by Brady & Cronin (2001)

Service quality is a changing aspect of service management within businesses. Consumers are changing and so are their expectations regarding their purchasing experiences (Brophy, Blackler & Popovic, 2015). In order to continuously be successful, companies need to adapt accordingly to the current markets (Azadegan, Teich & Mora-Monge, 2010).

4.FINDINGS AND ANALYSIS

4.0 Introduction

Service quality is a changing aspect of service management within businesses. Consumers are changing and so are their expectations regarding their purchasing experiences (Brophy, Blackler & Popovic, 2015). In order to continuously be successful, companies need to adapt accordingly to the current markets (Azadegan, Teich & Mora-Monge, 2010).

4.1 Relationship between Quality Customer Service and Customer Satisfaction.

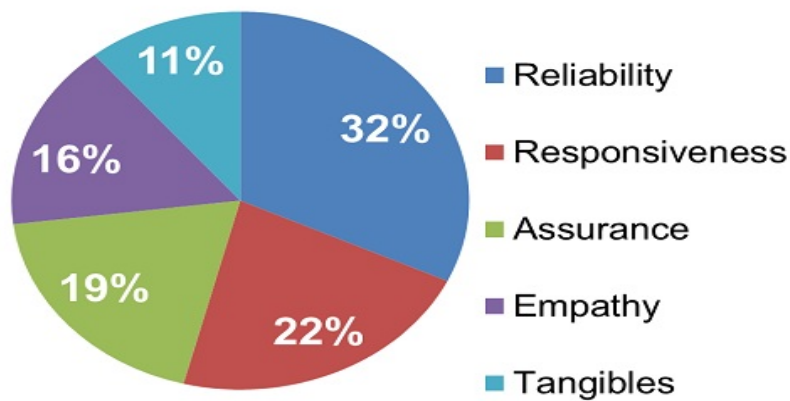
Agyapong, (2011) indicates that the evaluation of service quality leads to customer satisfaction, he further defines satisfaction as the “customer fulfilment response,” which is an evaluation as well as an emotion based response to a service.

Customers generally have a tendency to compare the service they 'experience' with the service they 'expect'. The results of most research studies have indicated that the service quality and customer satisfaction are indeed independent but are closely related that and a rise in one is likely to result in an increase in another construct. (Ali & Raza, 2015; Angelova & Zekiri, 2011; Kuo, Chang, Cheng & Lia, 2013; Naik, Gantasala & Prabhakar, 2010; Siddiqi, 2011).

Kuo et al. (2013) through their literatures have stated that companies often enhance their service quality as a way to increase customer satisfaction. It has become a popular trend to retain a high service quality throughout several different industries, and the market is moving more and more towards a state where consumers demand better quality, regarding both services and products, in order for them to be satisfied (Angelova & Zekiri, 2011).

Moreover, Siddiqi (2011), demonstrated that there is a positive correlation between service quality, through SERVQUAL, and customer satisfaction. Whereby Siddiqi (2011) in the study he conducted determined that utilizing all five dimensions of SERVQUAL increases customer satisfaction, while the study performed by Naik et al., (2010) established that consumers view the promptness of service and service quality as one of the most important factors contributing to them being satisfied. Recent research, such as Ali and Raza (2015), which determined that the elements of SERVQUAL has a significant and positive impact on how satisfied customers feel. SERVQUAL research showed dimensions' importance to each by asking customers to assign 100 points across all five dimensions and their importance to customers has been presented by the following pie chart diagram.

Figure 4.1 The 5 Service Quality Dimensions Customers Care about



Source: Parasuraman et al. (1986)

4.2 Relationship between Quality Service and Customers Loyalty (Brand Loyalty)

From the literatures of (Back & Parks, 2003; Ene & Ozkaya, 2014; Fornell, 1992; Hussain, Al Nasser & Hussain, 2015), it can therefore be assumed that there is a strong relation between customer satisfaction and brand loyalty, loyal customers tend to spread a positive word-of-mouth, as well as frequently buy new products that the company produce.

Fornell (1992) in his research found that satisfied customers are more likely to be loyal to a brand, nevertheless, loyal customers are not automatically satisfied. Attention to service quality gives a firm a lasting competitive advantage over rivals since consumers prefer service quality while price and cost elements are held constant.

However, customer satisfaction does not always lead to consumers being loyal to that brand, Oliver and MacMillian (1992), enlightens that satisfaction and loyalty have little effect on each other until the consumers reach a point of immense satisfaction. Allan (2016), found that service quality positively affects brand loyalty, where customer satisfaction serves as a mediator of the interrelation between good service quality and brand loyalty.

It can therefore be concluded that the good service quality in a purchasing experience is therefore a key driver for having satisfied customers.

Brand loyalty is thus not a direct effect of service quality but rather, service quality serves as a key basis for customer satisfaction, which has a positive effect on customer retention, that leads significantly to positive effect on brand loyalty.

The research reveals that customer service quality in supply chain management is directly related to financial performance in an enterprise and is one of the key elements of supply chain management operations to pursue excellence in competition. Quality customer service is directly related to retention of customers and loss of customers. Their analysis shows that financial performance is positively and significantly affected by the quality of customer service in supply chain management, which is a key element. The level of customer satisfaction also plays a role, which is an indirect factor. Companies need to increase their quality and focus on the production

of high-quality products in order to satisfy customers more. Good reputation will help them in improving customer service quality.

Both product quality and customer service are directly linked, because customers cannot ensure the quality of products if they themselves do not encounter good customer service. This is due to the fact that production of products can be done only by suppliers and it is very expensive, because to purchase raw materials in bulk and then process them into goods. Therefore, it is a complex task. In other words, suppliers (manufacturers and suppliers) help customers in benefiting from their purchasing power and increase their product value. Goods produced are sold at a high price.

5. CONCLUSION

It has been noted that a business with high service quality will meet or exceed customer expectations whilst remaining economically competitive. Consumers are changing and so are their expectations regarding their purchasing experiences (Brophy, Blackler & Popovic, 2015). In order to continuously be successful, companies need to adapt accordingly to the current markets as suggested by (Azadegan, Teich & Mora-Monge, 2010).

Evidence from different empirical studies suggests that improved service quality increases profitability and a firm's long term economic competitiveness. In order to improve service quality within a supply chain; operational processes must be enhanced; problems should be easily identified and quickly resolved systematically; together with establishing valid and reliable measures for service performance and customer satisfaction together with other performance outcomes.

Consumers are changing and so are their expectations regarding their purchasing experiences (Brophy, Blackler & Popovic, 2015). In order to continuously be successful, companies need to adapt accordingly to the current markets (Azadegan, Teich & Mora-Monge, 2010).

Most customers prefer good quality service to lower prices. Companies that give these added service benefits are likely to be winners.

Customers continue to require and demand better services and the goals of all service providers must be to improve the customers experience, as a result customer's perceptions exceeding their expectations, hence which will in long run improve firms' profitability. Customers perceive service in terms of the quality of the service they receive and whether or not they are satisfied with their experiences (Parasuraman, Zeithmal & Berry 1988, 1991, 1985).

However, managing service quality, should go in hand with managing the gaps that exist between expectations and perceptions on all players of the supply chain (Zeithaml & Bitner, 2003)

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To Determine The Effect Of Lack Of Actionable And Insightful Data On Supply Chains With Reference To The Global Covid-19 Pandemic To Impact Global Economic Growth

ABSTRACT

The ongoing COVID-19 pandemic has proved to be a humanitarian crisis that has adversely affected global business dynamics. In this light, the lack of actionable and insightful data has been a result and proper prevention strategies against propagating disruptions have not been sustainably achieved. In this respect, there is a need to explore supply chain operation management strategies to overcome the challenges brought about by COVID-19 such as the lack of actionable and insightful data.

Therefore, this review is aimed at exploring the challenges and coming up with strategies for sustainability for the supply chain. This study has also investigated the lack of actionable and insightful data as a resultant effect of the global pandemic on supply chain management. As in the past, pandemic events have proven to impact global economic growth. These have led to adverse effects on various supply chains and how they are managed. This has fueled our identification of the research objectives, methodological approaches, and implications for the supply chains. The study also explored the lack of actionable and insightful data on the business environment, in terms of effective resource allocation; supply and demand disruptions; and transportation network optimization, through operations management techniques.

The study also details a framework that emphasizes the integration of industry in terms of technologies, resilience strategies, and sustainability to overcome supply chain challenges during pandemics and unforeseen events. Finally, future study avenues were identified by including a study agenda for experts and practitioners to develop proper strategies capable of withstanding similar future events. This is through enabling critical components in an organization such as resilience and robustness, sustainability and survivability, digitalization, and industry.

All these components play a crucial role during pandemics and are interrelated. Organizations ought to have such aspects of readiness, vigilance, responsiveness, and preparedness for effective recovery from the disruptions caused by epidemics. These studies are expected to aid industrial managers, supply chain partners, and policy makers to take initiatives on supply chain management issues.

Keywords: *supply chain (SC), supply chain management; Actionable and insightful data, global economic growth, survivability; epidemic outbreaks; influenza; COVID-19; Sustainability; viability; resilience; industry review; manufacturing.*

1.1 Introduction

Supply chain disruptions can occur due to natural calamities or man-made disasters. There are several global calamities that have occurred in the past such as, the Gujarat earthquake of 2001, the tsunami in Japan in 2011 and the Indian Ocean earthquake. Similarly, there have also been various outbreaks of highly infectious diseases like the coronavirus (COVID-19) which has caused a catastrophe not only for human lives, but also economic activities like manufacturing operations, supply chain and logistics. The COVID-19 pandemic has severely impacted the automotive sector, the tourism, aviation, oil, construction, telecom, food and healthcare industries. Early cases of the virus were reported in December 2019 but were regarded as symptoms of pneumonia in China. It later severed and was named COVID-19; a global pandemic.

The COVID-19 pandemic which is air borne has emerged as a significant health risk, and countries around the world have responded with partial shutdowns of their economies to slow the pace its pace. These measures have reportedly led to massive disruptions in the global and domestic supply chains. The findings in different literature reviews show that supply chains during COVID-19 are more fragile for products that travel long distances before reaching their final point of sale. Our work highlights how online data can be used in conjunction with other data-sets for real-time policymaking and how its lack is severely affecting supply chains.

1.2 Statement of the problem

As years move by a lot of changes are being observed in almost everything supply chain and business in totality being one of them; some of these changes have positive impact such as technological advancements, globalization and some of the forces have negative impact such as pandemics, lack of ability to fully utilize the positive forces putting some of the companies in disadvantageous position and sometimes sudden deaths. With these changes companies are forced to switch to new and more advanced ways in advance to remain competitive. This study focuses on the negative forces that have affected the supply chain and business in general and focus is put on how they have affected the same.

In recent 2 years the world was hit by a global pandemic which caused perplexed situation to the entire universe affecting the way supply chain (SC) was being carried out. This has resulted to numerous challenges one being risk of extinction of human race leading to number of responsive actions taken by governments and other world leaders to rescue the situation. Some succeeded to contain the impact in initial stages, some were terribly hit, and some were left in puzzle due to inability to quantify its impact.

This pandemic smashed another nail in an already distorted world economy, business, social interaction and mainly supply chain which advanced gradually but in a faster speed in the recent years. These transformed the economies from labor intensive to machine intensive which ultimately led to better quality products, cheaper processes but then led to necessary changes to how businesses were interacting with customers as business moved from face to face to digital limiting extent of interactions at some point and affecting how suppliers can control their population. Local suppliers were competing with global suppliers and information flow is even seamless with internet where now product pool was improved and customers get to gather enough information before they commit to buy.

The following are some of the issues affecting supply chain as a result of the above-mentioned and many other changes that faced businesses in recent years: -

- a) Quality Customer Services
- b) Limited Granularity of Data
- c) Fast Changing Market
- d) Single-source Amplified Supply Chain Risks
- e) Slowed Digital Transformation
- f) Lack of Actionable Data and Insightful
- g) Internet of Things (IoT)
- h) Block Chain

In this journal focus is further put in diving deep into how *lack of actionable data and insightful have affecting supply chain*.

1.3 Objective of the study

As highlighted above the main objective of this research is to be able to establish the impact that lack of actionable data has on supply chain as a continuation of the impact of COVID -19.

1.3.1 Specific objectives of this journal

- i. To identify the impact that lack of actionable and insightful data have on effectiveness of supply chain
- ii. To determine factors which resulted to the lack of actionable and insightful data
- iii. To determine what businesses should do to overcome the impact of lack of actionable data and that of the pandemic

1.4 Research questions

The journal questions are designed to allow for answers which will help the writers to make feasible conclusions to the research problem.

- i. What is the impact of lack of actionable and insightful data in supply chain as a continuation of impact of COVID-19?
- ii. What are the factors affecting the availability of actionable and insightful data?
- iii. What can businesses do to overcome these challenges?

1.5 Significance of the study

This study is expected to serve the following purposes

- i. To provide knowledge on the impact that lack of actionable and insightful data has on supply chain as a continuation of impact of COVID-19
- ii. To shine light on what caused the lack of actionable and insightful data
- iii. To come up with way that businesses need to put in place to overcome this impact.

1.6 Scope of the study

This study assessed the impact that lack of actionable and insightful data has on supply chain being a continuation of the impact of COVID-19. This is a desktop survey on various companies in various industries.

1.7 Limitations of the study

- i. Funding, detailed studies need a lot of money which is limiting for a self-sponsored student.
- ii. Time, the researcher was constrained by time since the guideline indicated that the research was to be conducted in 8 weeks time which is relatively short for detailed research.
- iii. Human resources, this research has been conducted by only one person hence coverage was also limited.

2.1 LITERATURE REVIEW

2.1.1 The concept of supply chain

The concept of supply chain can be traced back at the beginning of 1980s when it was introduced in the literatures by M.D. Weber and R.K. Oliver who were in consulting field. However according to Florea and Clipa (2001), several researches undertaken revealed that the integration, interconnectivity and coordination of various functional units such as logistics, organizational theory, management and operational research, marketing, streamlined distribution means was in existence even earlier than the term Supply chain appeared in literatures.

According to Habib (2010), the direct single definition of supply chain continued to cause confusion regarding regardless of its popularity in business environment and even in business universe. As some of the writers defined supply chain management in functional terms relating it with the flow of inputs (raw materials) and outputs (finished products), while others viewed the same in terms of management philosophy while others viewed it as integration systems (management process). Writers like Cooper and Ellram, 1993 have intellectualized supply chain differently within the same editorial. Such confusions imply the necessity to scrutinize the processes relating to supply chain more thoroughly to visibly define the concept of supply chain.

The conceptual definition

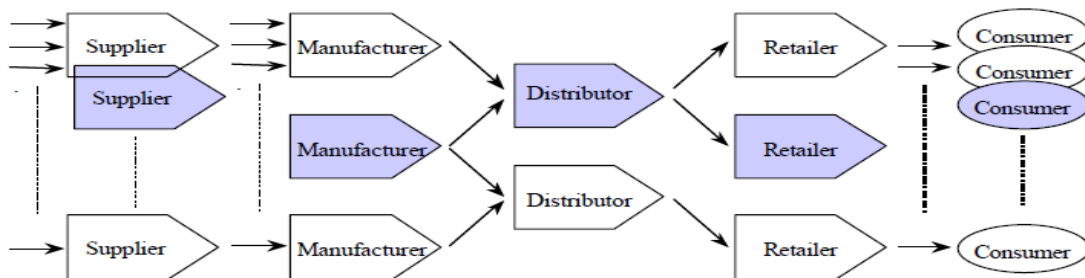


Figure 1. Schematic diagram of a supply chain (shaded) within the total supply chain network.

Pictorial definition of supply chain (Beer supply chain)

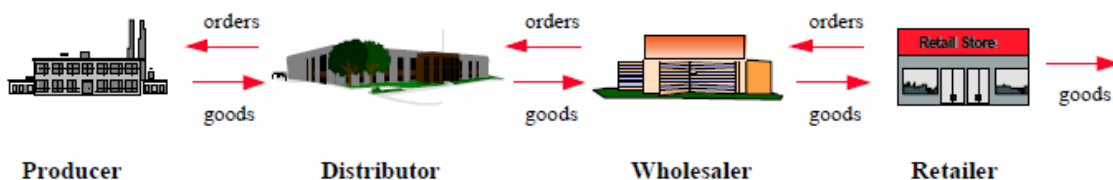


Figure 2. The beer supply chain.

Beamon B. (1998) defined as a well-defined manufacturing process in which raw material are transformed into finished products and then the same are delivered to consumers. Similar definition was produced by Bridgefield Group (2006), Tecc.com.au (2002) and Pienaar W. (2009b) and all of these were centered on the main determinants of an effective SC.

While on the other end Little, A. (1999) defined a SC as a combination and coordination of activities on how goods flow from origin to targeted destination furthermore it captures the flow of information related to it. Chow, D. and Heaver, T. (1999) extended the above definition to cover other logistics management service provided in the process of delivering value to the customers as a result of consumption of these goods.

2.1.2 The concept of actionable and insightful data.

The concept of actionable and insightful data can be directly interlinked to existence of big data which according to John R. Mashey, the concept was being used since early 1990s. It's believed to have started before 300 BC when Egyptians started to capture all existing data in Alexandria's library also Roman Empire used to analyze various data of its army to determine the ideal distribution for its militaries.

These data can be put in many categories such as: -

1. Structured data (Data in organized form and format)
2. Unstructured data (Data in numerous forms and formats with different details)
3. Semi-structured data (Data in combination of the above two categories)

The existence of data necessitated in existence of data analysis to enable the data to add value to the users and justify the investment that business make in ensuring they capture, store, process and make informed decisions out of the data.

Data (big data) have the following characteristics which are key in how the same are captured processed, stored and extent of value out of the same. Some of the characteristics are as follows:

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1. Volume (These data are normally in huge size)
2. Variety (They are of heterogeneous nature that is both structured and unstructured)
3. Velocity (These are sensitive to speed of generation and processing)
4. Variability (They are inconsistent at times)

Decision on where to get the inputs, the inbound logistics, selection of type of process to manufacture, choice of what type of products, quantity to be produced, delivery means, after sales services and approaches to capture customer feedback are all expected to be done in a well-informed environment hence stressing the need of actionable and insightful data despite the variability and variety.

For the data available to add value into the supply chain they first need to be insightful meaning that they should contain necessary information that the business requires for its success, this involves accurate information, objectively analyzed, timely shared and timely acted on. Example in a retail store, owner should not just maintain data containing just name and gender of customers who visited their shops rather capture data of types of product they tend to check and which ones do they actually buy, and at what frequency do they buy also what times do they buy as these will help the retailer to know which products the customer are interested in and what times should expect huge number of customers also know what quantity of stock should be kept at the stores to meet the demand.

Apart from the data being insightful they must result to actionable outcomes in a way that they should not just be base in only telling what was or what is but rather help business make right decisions hence the data should be actionable. For example, with Covid-19 there are number of data showing number of people died if this is left as is no decision can be derived out of it but once it clearly indicates that most of the deceased are elderly people then emphasis on special preventive measures can be done to rescue this group.

2.1.3 Impact of Covid-19 into business

(COVID-19) which has caused a global catastrophe not only for human lives, but also economic activities like manufacturing operations, supply chain, logistics, and several other sectors. The COVID-19 pandemic has severely impacted the automotive sector, the tourism, aviation, oil, construction, telecom, food and healthcare industries. Early cases of the virus were reported in December 2019 but was regarded as symptoms of pneumonia in the Wet Markets of Wuhan City in Hubei Province, China, it was not until later that it was named COVID-19 and declared a pandemic

The COVID-19 pandemic has emerged as a significant health risk, and countries around the world have responded with partial shutdowns of their economies to slow the pace of infections. These measures have reportedly led to massive disruptions in the global and domestic supply chains. The findings in extant literature show that supply chains during COVID-19 are more fragile for products that travel long distances before reaching their final point of sale. Our work highlights how online data can be used in conjunction with other data-sets for real-time policymaking.

The Global COVID-19 pandemic has infected millions of the world's populations at a shocking speed. It has brought down economic activities across the globe due to the imposition on mobility to decrease its spread. It has had a toll on various economies due to deteriorating human and health conditions (World Bank, 2020). The health pandemic has led to resultant effects on social and economic crises at large.

Moreover, the pandemic's impact has proven to be heterogeneous from country to country, and it is likely to widen inequalities and poverty globally, leading to a delay in the progress made to achieve the Sustainable Development Goals, thus needing immediate recovery responses (United Nations Development Programme, 2020).

According to the Global Economic Prospects (World Bank, 2020), the global economy envisages a 5.2% contraction in the gross domestic product (GDP) despite various governments' extraordinary interventions to tackle the effects of this pandemic. That notwithstanding, the aftermath of the pandemic is projected to leave a remarkable stain mark on the global economy by destroying human capital; thus, leading to loss of schooling and work, lower investment, and disintegration of global supply and trade linkages (World Bank, 2020). Sarkodie and Owusu (2020) note that the restrictions and stringent measures instituted to curb the effect of the COVID-19 virus through social distancing and lockdown have severe economic, environmental, and health impacts on the global population. These are sadly ongoing. The lockdown effect has however led to the strengthening of healthcare systems and resultant reduction of infections

3. MATERIALS AND METHODS

With the current spread of COVID 19 and its impact on global travel, the global economy has been severely dented. That coupled with the loss of lives has not only instilled fear but economists and analysts are worried about the world at large due to its irreparable damage. To reduce the further transmission of the infection among people, lockdown strategies were affected. The new norm was introduced Working from home, closure of borders and retrenchments to mention a few. With particular reference to the topic at hand, it also led to the introduction of alternative delivery channels.

To further explain on the mobility aspect, major international and domestic flights, including other local transports have been postponed or grounded across the globe. Trains except for cargo trains, buses, trucks, and private vehicles were also restricted with the exception being only the transportation of essential goods. Furthermore, educational institutions, sporting and spiritual institutions have been closed while some are operating virtually. Industries have long suffered as these facilities were closed for a long time and in some countries, lockdown procedures are still carrying on. The most impacted industries are the tourism and transportation as production has gone very low. The free world economy is now faced with threats of poverty, unemployment and high inflation, and affected supply chain channels.

In this study we have used several approaches/methods to determine how lack of actionable and insightful data keeps affecting businesses and supply chain in specific taking up from the impact of COVID-19. The following are methods we have used in collecting data to back up this write up:-

1. Observation/Participant Observation. Here we used different experiences seen in different industries and companies over the years capturing how they have been operating both pre-COVID-19, during the pandemic and after the pandemic.
2. Surveys we have done a desktop survey where we went through different published results of different companies to see how they are using data, clearly identified sources of data, processing means while we monitor their speed of adopting and the results both before, during and after the pandemic.
3. Focus Groups since this paper is authored by 5 group members as seen in the cover page the concepts and details were shared in an open book discussion to capture the necessary details and data necessary to determine how lack of actionable data have affected supply chains of different companies in different times from different places.
4. Secondary Data Analysis / Archival Study significant part of the report is mainly based on secondary data reviews and various sources were used (both digital and analog means were used)

4.1 RESULTS OF THE STUDY

In this paper we have focused the discussion at assessing how supply chain in recent economic condition is affected by the lack of actionable and insightful data. As per the above definitions of supply chain this impact will be looked at how it affects different components of supply chain at a point in time.

4.1.1 Too much specialization in existing data

It is been noted that most business had vast data which were too much structured to the point that it limits scope of understanding of the large business environment this resulted to failure to overcome the challenges of the pandemic hence producers in countries which were not affected could not rescue their operations where they were fetching inputs from countries which were heavily hit as they had no data which could allow them to make an easy switch to alternative suppliers. This was first due to over specialization and lack of real time data which could help the businesses project disruptions to business because of Covid-19 where instant calls by different governments to whether close boarders or restrict movements which ultimately affected both the heavily hit and the less hit as they are normally interdependent.

4.1.2 Lack of accurate data

It was also noted that over and above too much specialization, companies have no capacity to get reliable and accurate data at all times mainly due to the limitations that comes with the source inputs whereas some of the countries were concealing the reality about impact of the pandemic resulting to inaccurate decisions. Countries like Madagascar had announced that they have a cure for the pandemic while WHO had commented that there was no proved cure or vaccine at that point hence leaving companies in dilemma of whether they should resume to the normal operations or continue to change means of doing business.

4.1.3 Preparedness challenges

The pandemic taught the world that at some points it is not prepared where even the alternative and disaster control measures in place could not curter for the gaps and holes brought by the pandemic. Here even during the first wave where in some places like Tanzania there were shortages of face masks and hand sanitizers leading to shooting of its prices implying even factories which could have produced these materials were in no position to act immediately hence took time until the same was addressed.

Furthermore, few players in the world market had benefited from this pandemic and these included digital and electronic service providers and product distributors which saw them boom in profit and share values as these had mechanisms in place to operate during these times and these were mainly not as a result of available data but rather being lucky that the new conditions favors them.

4.1.4 Resilience to change and fear of change.

During these times of the pandemic very few players were able to contain the impact of the deceases and was able to apply the available data these involves those business which changed their models to allow remote working and switch into more machine intense processes. While for other who were resilient or not capable to afford the needs of the new normal could not get value out of these data which brings in light the element of pick and choose in what message is obtained from the data. Here some companies saw new normal as an opportunity where they canceled rental contracts, employed more machine, and cut down staff costs others whether had no muscles to change or had no data to predict how long this new normal would last or rather if the new normal would be beneficial.

4.1.5 Unpredictability of situations

The pandemic had brought about different impacts in different places making it hard for data analysts to have a pattern and make sense out of it. For example during early days of the pandemic WHO had advised that face masks should only be worn by the medical attendants as

there is no need for non-affected to wear the same but after a short while they changed again following new data that face masks should be worn by all people, also some countries had lockdown policies and succeeded to contain the deceases example Uganda while some had even more deaths using same policy example Italy where also some had no lockdown at all and reported fewer deaths like Tanzania unlike Brazil who had implemented the similar policy and experienced many deaths. These inconsistencies in data made it relatively impossible for business to design approaches to combat the impact of the pandemic to the supply chain.

5.1 RESULTS AND DISCUSSION

As has been numerously noted above, COVID-19 has changed the world tremendously. Health crises have arisen and social economic activities have been shattered. Based on our above study, the results confirm the negative impact of Covid-19 on the supply chain due to the resultant effect on data. On one side, economies are facing industrial shutdown and the slowdown in the economic activities that have affected the global supply chain and, in another light, the significant increase in health expenditure is proving to be detrimental. Results of the dynamic models i.e., GMM and FGLS demonstrate a significant negative effect of health expenditure on the global supply chain of the countries. It is recommended that a framework for the readiness of SCs to combat epidemic outbreaks, disasters, and pandemics, such as COVID-19 is created. The current study focuses on identifying the drivers that will be more influential in formulating strategy for the resilience and continued operation of SCS in the context of the pandemic.

5.1.1 Some of the major issues resulting from lack of actionable and insightful data which affects supply chain due to impact of COVID-19 such as.

- ❖ Inabilities to set up a proper supply chain network, some of the supply chain networks are complex in nature mainly being due to nature of the products, type of market targeted and characteristics of the components. As a result of the pandemic some of the business had it difficult to modify their chains to survive the new normal for example those industry which are labor intensive hence mechanics to transform the same to machine intensity was a very complex task
- ❖ Uncertainties of supply and demand, the abrupt changes of economic conditions shifter=d demand in ways analysts could not expect where some products which had sleeping demand boomed example face masks and hand sanitizers and other electronic channels of communications example the likes of amazon, zoom and several others which were initially seen to be luxuries were now necessities where necessities like car fuel had dying demand and prices declined to 0 as suppliers could not adjust production in time.
- ❖ Constrained production agility, some of the production processes had taken years and centuries to set up hence changing them over a short period of time was too much to ask leading to temporary close down of some companies and permanent scaling down of some.
- ❖ Limited financial flexibility, most efficient companies had a structured gearing ratios where bigger portion of the companies were funded by credit which had fixed repayment schedules which due to slow down of the operations it became hard for them to meet their obligations hence affect the ability of providers of funds to fund other immediately required projects and for those fund holders with immediate cash were unable make investment decisions due to uncertainties caused.

5.1.2 The digital supply chain method can be useful to manage disruptions of economic growth on COVID-19

Employment of new and advanced digital supply chain solutions, during planning process, inputs sourcing, product design and production, logistics and other marketing and other supporting activities new advanced digital systems should be employed to create consistences and allow visibility of the entire process from a single screen to create room for modifications where necessary as brick and mortar systems are hard to understand and impact of the changes can hardly be predicted as visualization is difficult and involves many subjective assumptions. This creates room for global collaboration while creating a single version of the truth where calendars for workflow, systems for exception management and updates on production schedules can be done on the go.

Improve procrastination strategies. Businesses should consider creation of procrastination or delaying approaches when covid-19 goes away and production capacity returns, this involves ability to delay production without affecting the position of the company and have alternative means which are fully functional.

Improve supplier management and sourcing. As mentioned above companies/businesses should have a diverse pool of sourcing strategies to help combat difficult times these should help businesses to have multiple suppliers from different places offering products which can serve the same purpose to ensure business continuity even when core suppliers are unable to deliver.

Focus on short-term strategic planning. Much as its key to have long term plan as a mechanism to have a focused approach its key that business consider breaking the long term plans even further so that in short run proper responses can be put in place to cater for uncertainties both which are short term in nature and create room for long term approaches.

Implement alternative delivery channels. Businesses should now shy away from focusing on short single channels to reach their customers as the recent pandemic sent a reminder that some risks are hard to predict and the very worse could happen hence business should introduce a pool of channels and stabilize them just to ensure if any of the channels is hit they are yet able to reach the market and remain competitive.

CHAPTER SIX

6.1. Conclusions

Conclusively, to make supply chains ready for future happenings certain critical components of SCs were extracted, such as resilience and robustness, sustainability and survivability, digitalization, and industry. They are all interrelated. COVID-19 has disrupted supply chains around the world (Yu, K.D.S, 2020). **They have however been a vital lifeline to support the response, keeping essential medical supplies, food and other key necessities flowing across homes. Undoubtedly, the pandemic has tested the ingenuity, resilience and flexibility of supply chain leaders across nations, as they have fought to maintain essential operations.**

6.2 Recommendations

Moreover, the study presented a systematic analysis of the sustainability and viability perspective of SCs using a literature review and the use of different research avenues, which have not been comprehensively focused before. It has been noted that the interaction between supply chains and epidemic outbreaks has been explored in terms of effective resource allocation, disease management, aid distribution, and transportation network optimization, through operations management techniques. Moreover, several epidemic models have also been used in a similar context, as reported in the nominated pandemics. The resultant has been adverse effects on supply chains, causing full, partial, or smart shutdowns of numerous manufacturing industries. However, it is important to note that the research on the topic is not yet mature, offering continuing opportunities for evaluating different angles. Therefore, this research study identified literature gaps and research avenues related to the optimization of sustainable operations during epidemic outbreaks, the response to logistics and operations, how a circular economy helps to sustain the production capacities.

Furthermore, the study recommended that the recent crisis has dramatically affected all the sectors of the economy including the manufacturing industry and logistics industry, which are the two main pillars of the supply chain management across the globe. During Covid-19, sudden lockdown around the world has caused a tremendous decline in the aggregate demand of goods and services (especially transportation services), due to which the manufacturing and logistics industry was affected in early 2020 the first half.

The situation has demanded policymakers to react quickly, and take suitable measures to tackle this unprecedented pandemic. The global supply chain is the lifeline for the global economy; thus, it is recommended that cross-border trading activities should not be halted, rather governments and other supporting agencies should come up with smart lockdown strategies. These can be seen as the appropriate tradeoff between natural calamities and resultant effects on global economies.

One way to consider this is through proper planning of the possible timings, i.e., when to open and when to close the facilities at different points in the supply chain. Management also has to demonstrate proactivity. A tough, but useful proactive assignment is to accurately map the product's supply chains beyond the first or subsequent supply tiers (Ivanov, 2019). The emphasis here would be shifted towards developing a redundancy that is flexible in nature so it would

mold the SC systems to be able to cater for ambiguities (Pavlov et al. 2019). Another proactive approach would be to use computerized manufacture and distribution arrangements.

Lastly, supply chains should be given priority due to being significant for the society and needs specific consideration from government authorities such as they relate to the delivery of important goods such as pharmaceuticals, food stuff and safety and healthcare segments.

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Twining The Fast-Changing Market And Supply Chain Management For Organization's Competitive Edge During The Covid19 Era And Beyond

Abstract

The complexities of the corona virus pandemic (COVID 19) on supply chain management imposes enormous challenges on fast growing markets/emerging markets. Customers' expectations nowadays are more demanding than ever, especially now with the current global pandemic (COVID 19). As described here, companies have responded with global networks, product innovation, and market expansions. This means that companies now rely on supply chain managers to optimize their value chains in order to stay competitive. As such it's no surprise that these professionals are in high demand. So, customers, need to rest assured that experts in supply chain management, are on tackling these complexities every day and are eager to delight the customer experience and expectations. Therefore, companies are trying to expand their distribution through properly arranged supply chain to fast changing markets in order to meet customer demands, grow revenues and increase market share. Companies all around the world are expected to expand their homes as well as foreign markets. The introduction to new markets is difficult due to trading policies, fees and government policies. So, they are now keen on adopting new strategies in their supply chain to make it more effective.

Keywords; *Fast changing market, challenges, market demand, supply chain, inventory management.*

SESSION 7 [B3]

11-1230/Thursday, September 16th, 2021, Meeting Room B

Supply Chain, Marketing and Entrepreneurship

Session Chair: Dr Felix Nandonde

Moses Marko

The Determinants Of Prosocial Crowdfunding Adoption In Microfinance Institutions In Tanzania

Abstract

It is more than a decade since prosocial crowdfunding emerged as a new method for microfinance institutions (MFIs) with capita constraints to accessing funds from individual investors worldwide. Prosocial crowdfunding is associate with several advantages including; providing access to cheap sources of financing; providing the opportunity to transfer the credit default risk from the MFIs to investors; a high success; and prosocial crowdfunding is expected to increase outreach, and improve the sustainability of MFIs. In contrast, despite the unique potential of prosocial crowdfunding and the existing problem of MFIs' shortage of capital to lend to their clients that results in the low supply of MFIs' services and financial exclusion, very few MFIs in Tanzania approximately less than one percent of MFIs have adopted prosocial crowdfunding. Also, there is little empirical research to investigate the motivation for Microfinance Institutions to adopt prosocial crowdfunding. This study intends to examine the factors that influence MFI's intention to adopt prosocial crowdfunding.

Specifically, the study has three specific objectives including; determining the influence of Managerial characteristics on MFI's intention to adopt prosocial crowdfunding; determining the influence of organizational factors on MFI's intention to adopt prosocial crowdfunding, and determining the influence of environmental factors on MFIs' intention to adopt prosocial crowdfunding.

The study will employ a quantitative approach whereby the study will use a cross-sectional survey as a research design and the closed questionnaires as a data collection tool. The target population of the study is all microfinance services providers under tiers 1 and 2 in Tanzania. The study will use both non-probability and probability sampling as a sampling technique. To generate the groups of MFIs to be studied, the study will use proportionate sampling, and to select the sample of MFIs, the study will use the table of a random sample. The study will use judgmental sampling to select MFI's Chief executive officers or top managers, and directors of finances as respondents to represent their institutions. The study will use Partial Least Square- Structural Equation Modeling (PLS-SEM) for data analysis.

Wilfred Felix Kavishe

The Influence Of Microfinance Institutions On Crowdfunding Approval: The Analysis Of Loan Officer's Loan Approval

Abstract

This study aims to analyse the influence of microfinance institutions on crowdfunding approval analysing the loan officer's loan approval on the existence of crowdfunding as an alternative loan financing channel in supporting the growth and expansion of their loan portfolios. Results will indicate the level of crowdfunding awareness among loan officers, the influence of loan officers' characteristics on crowdfunding approval and the how the microfinance instructions' characteristics affect the loan officers' crowdfunding approval. This study will shed light on the MFIs loan screening process for crowdfunding purposes. Therefore, study findings will provide suggestions to policy makers on how they may aiding the practice of crowdfunding to easy access to finance

Daudi Pascal Ndaki, Nsubili Isaga

The Role of Financial Literacy In Crowdfunding Awareness: A Survey Of Entrepreneurs In Tanzania

Abstract

The paper will investigate the role of financial literacy on crowdfunding awareness among youth entrepreneurs in Tanzania. Entrepreneurs faces day to day financial decisions. Decisions on using financial instruments for decision funding business ideas may get more complicated as new terms add to the existing ones. Entrepreneurs with a high understanding of financing decisions are likely to benefit from many instruments. A background in financial education, closeness to financial institutions, possession of banks accounts, having a loan from financial institutions are likely to be more aware of crowdfunding. The pace of using crowdfunding as a funding source for entrepreneurs in Tanzania is uncertain. Access to crowdfunding for entrepreneurs is likely to increase the number of business start-ups hence self-employment. The study will use the most recent data of the 2020 baseline survey conducted in Morogoro, Dar es salaam, Arusha, Mwanza, and Mbeya.

Main Objective

The main objective is to analyse the relationship between financial literacy and crowdfunding awareness among youth entrepreneurs.

Specific objective

- i. To examine whether an entrepreneur's financial education background is associated with participating in a crowdfunding campaign.
- ii. To investigate an entrepreneur's proximity to financial institutions is related to owning a bank account.
- iii. Exploring an entrepreneur's ownership of a bank account is related to taking a loan from financial institutions.

SESSION 7 [C3]
11-1230/Thursday, September 16, Meeting Room C
Session Chair: Andrew Mushi

Brian D. Mshana, Andrew Mushi

Leadership And Management Of Non-Governmental Organization: Factors Making Women-Led Organizations Work'

Abstract

The NGO world is still considered among new industries in the world and yet even it has been succumbed with the same traits of gender imbalance especially at the top managerial level. Nevertheless, most recent assessments have noted that, women led NGOs are among successful NGOs. The study aimed at assessing factors making women led organizations work. A descriptive explaining further this existing phenomenon selected a sample size of 46 respondents spanning from women leaders from successful NGOs to stakeholders who work closely with NGOs in the country. The qualitative data was analyzed by thematical analysis awhile the quantitative data employed the use of SPSS.

The concepts of NGO's leadership and management approaches and styles, lead to extraction of unique factors of which NGOs' leaders adopt often for their success. Literature also brought light in extent of contribution of agenda and issues carried by NGOs, a fact that was further hammered by NGOs' stakeholders from selected sample to be best practiced by women leaders of NGOs to their success. Women showed unique qualities that complement leadership positions especially of humanitarian sectors like the NGOs. Also findings revealed accountability, transparency and improvement of the beneficiaries and stakeholders have extreme contribution to NGO's success, and respondents agreed these to be strongholds of women leaders thus the NGOs they lead take advantage of these qualities and reach their success.

The study concluded that, women led NGOs benefit a lot from their female leaders due to their leadership styles supported by their feminine nature mentioned as nurturing, honesty, integrity, passion for their work, connection to the agenda, team work, good relationships, effective communication and work-life balance. The study recommends facilitation for more female leaders in NGOs and other sector with more studies to explore community based NGOs as well.

Keywords: Tanzania, NGO leadership, NGO Management, Women leadership and Women in NGOs.

Abstract

This piece of writing examines the role of promotion strategies on tourists' hotels performance with insight from the tourist hotels in the largest commercial city of Tanzania, Dar es Salaam. Precisely, it dwells on the extent to which key promo tools of advertising efforts, sales promotion, direct marketing, public relation and personal selling influences tourists' hotels performance. Informed by Hierarchy of Effect, Relationship Marketing and Behavioral Learning theories, data were collected randomly from 80 managers/ owners from tourists' hotels through structured questionnaires. Moreover, 3 key informants were purposively contacted for in depth interview. Through multiple regression analysis, it was ascertained that advertising, sales promotion, direct marketing and public relation were strong predictors of tourists' hotels performance. Personal selling had positive, but insignificant influence on tourists' hotels performance. The article recommends the tourists' hotels management to capitalize mostly on the four most influencing promotion actors to the tourists' hotels performance. More emphasis should be placed on posters, print media, and radio categories, which appear to be the most influencing for advertising, while coupons, discounts and contests actors outperform other sales promotion attributes. Finally, Internet, telephone and telemarketing should be emphasized for direct marketing while social media, business events and press release, should be utilized for public relation.

INTRODUCTION

Tourism and hospitality sector has been regarded as one of the world's major industries with a remarkable performance in terms of employment creation and maintenance, gross domestic product (GDP), investment opportunities, sustainable development and export earning generation among others (Anderson *et al*, 2021; Njoroge 2021). Consequently, the stimulus to uplift this sector has risen in terms of the number and attraction of new destinations. About 1.5 billion of international tourists arrivals were recorded globally in 2019 which is an increase of 4% of tourists from 2018 (UNWTO, 2020). WTTC (2019) asserts that the global Travel and Tourism sector grew at 3.9% to register a record of \$8.8 trillion and 319 million jobs to the world economy in 2018. For the eight-consecutive year, this was above the growth rate of world GDP (Silver, 2019). The sector has also attracted Tanzania national market entry by international players leading to increased competition (Kim & Wang 2015). Nonetheless, the competition intensifies difficulties in establishing a technique to obtain maintainable firms within this complicated surroundings (Garcia, 1996; Cárcel-Carrasco & Gómez-Gómez, 2021).

Tourists' hotels as one of the key players in the tourism sector have been further important for the accommodation of tourists' visitors. The individual tourist hotels are essentially businesses that are facing competition from other hotels in the industry which leads to a low flow of foreign tourists. Lack of training, providing services that fall short of standards that satisfy and retain guests, poor management of system of information that are useful for tourists decision making are among the reasons leading to poor performance of tourists' hotels in the industry. ILO (2010) contends that

tourism based SMEs ought to be encouraged to update staff training, information and technology support. Further, Rendón *et al.* (2014) argue that to increase the occupancy rate, there is a need to apply modern strategies to ensure continuous increase of customers. To substantially mitigate the problem, Blankenburg and Johanson, (1997) argue that Tourism industry performance can be greatly enhanced by marketing efforts significantly through effective promotion. In the views of Charles (2017), promotion which combines advertising, sales promotion, personal selling, direct marketing and public relations techniques are the best in improving the tourism industry. Nevertheless, the application of those components are often ineffective due to high expense, but also the difficulty of reaching the market (Kenton, 2019) calling a need for conducting a study that lead to this manuscript. Kotler *et al.* (2018) argue that Advertisement, sales promotional activity, Public relation and direct marketing play an essential role in helping companies reach their marketing goals although the major objectives and potentials of each differs dependent on several circumstances.

Promotion adoption in the Tourist Hotels in Tanzania

Tourism industry in Tanzania has been growing faster compared to other sectors (Okello & Yerian, 2009); in 2017, it contributed more than \$2.1 billion (equal to Tsh 4.7 trillion) to the Gross Domestic Product (GDP) compared to Tsh 4.2 trillion of 2016 (John, 2018). The growth of tourism industry has stimulated various organizations and individuals to invest in the hotel sector to cater for accommodation of tourists who flow outside their normal surroundings for business/professional or personal reasons (Noreyah & Hameed, 2017).

Despite progress made through excellent hotels and quality of service in the tourist hotels, more so in Dar es Salaam, little has been done on promoting them (Plan, 2019; Wade *et al.*, 2020).

It is clear that the hotel industry requires not only innovative ideas and skills of running the business, but also the promotion aspects to meet the target (Nemeth *et al.*, 2013).

Broadly, Promotion mix (used interchangeably with promotion strategies in this article) is being used to create, increase and maintain the need for goods and services in the business (Smith, 2017). Imas and Rist (2006) consider promotion-mix as an optimum combination of various promotional tools and methods making up a totality of organizations promotional efforts. Boone and David (2011) put forward that promotion uses advertising, sales promotion, direct marketing, publicity or public relation and personal selling to promote.

Lombardo (2013) opines that advertising helps effectively the firm to contact huge amount of customers through radio, television, newspaper, television, internet and social media. Moreover, sales promotion is used to clear out inventories, lift sales temporarily, introduce new products and attract traffic. Furthermore, direct marketing is used to promote service and product to the target customers through telemarketing, email and direct email (Desai, 2021; Hosseini, 2021; Rallis & Rossman, 2003). According to Buzzell (2004) promotion efforts in the tourism industry (hotel promotion inclusive) is increasingly shifting to internet, social media, magazines, billboards and visual world to meet the competitive structure. Public relations on the other hand assist to create a good public image (Smith, 2020; Quesenberry, 2020), new product launches and sales, to determine public attitudes (Abdaturapova, 2021), contacting the general objectives of the firm and handle any negative issues (Gregory,

2020; Mutsa *et al.*, 2011). On the final part personal selling is used for convincing opportunities, selling complicated products and building relationship with customers (Luttrell & Capizzo, 2020). This article suggests that these perspectives can be effectively used in the tourist hotel industry provided one is aware of the different potentials that each one of them offers to the firm.

Dar es Salaam city in Tanzania, is the centre of business that most visitors encounter and the arrival point for most visitors of the international flight (Tanzania Tourists Board, 2019). It is a place where it is necessary to stop on the path toward a tourist area of Zanzibar or the Northern safari circuit. In 2018, Dar es Salaam recorded a decline in tourists (Dube, Nhamo & Chikodzi, 2020). Researchers outlined a number of reasons including poor bed and other quality of service offered within the hotels. According to the The Citizen (2018) total of 138 rooms were not occupied at one of the largest tourist Hotel of Ramada Resort, slashing the occupancy to 65%. The dropout of occupancy was due to slow pace of tourists arriving in the country, adding that more efforts were needed to raise the number of tourists and by implication occupancy rate in the Tourists Hotels. Archer and Ruhanen (2008) argue that despite advantages of using modern technologies in promoting hotels, many of the tourist hotels have not managed to apply modern marketing strategies to overcome the competition from both foreign and local hotels. Up to now, there are limited information on the linkage between the role of promotion and the performance of tourists' hotels in Tanzania (Lwoga, 2013). Therefore, this article examines the role of promotion mix on the performance of the tourists' hotels in Tanzania, specifically in Dar es Salaam.

Thrust of the paper

Tourists' hotels have been more crucial for the tourists' residence in the time when they are enjoying the attractions. Hotel industry is also among the major contributors to the economy through taxes which increase national income. Additionally, in Tanzania more than 400,000 people are directly employed in this industry besides those employed indirectly (Midy, 2017). In the view of Varela *et al.* (2004) accommodation acts as a stimulus for a range of additional sales chances within the complicated tourism and hospitality business. Several Hotels strive to attract customers to stay with them for cross selling advantages. Casino hotels for example usually offers discount of accommodation in the expectation of producing significant profit from customers through among others cross selling products such as gaming tables. Golfing hotels generate super profit by charging the customers who are playing golf (Wood, 2018). The services such as convenient hotels and accommodation facilities have a very crucial role in publicizing any tourist destination. In the view of Ahliya (2010) if an individual, who is quite miles away from home, really enjoys at least the same facilities and conveniences as he/she enjoys at his/her destination, then he/she is tied up to become connected to the location.

In the past couple of years, there has been a drastic drop in tourist presence in the hotel business; which resulted to poor performance (Kim & Hwang, 1992). According to Tanzania Invest (2017) there was slowdown of tourism arrivals in 2019 due to the introduction of VAT in tourism services and poor performance. Moreover, Mwamwaja and Mlozi (2020) reveal that the leading hotels of Serena Hotel, Sea Cliff, Serena, Southern Sun, Four Seasons, Hayat Regency-The Kilimanjaro and Southern

Sun, were hit hard and some were forced to suspend their services as a results of Covid-19 attack of March and May 2020.

Despite the Tanzania government efforts to support the development of tourism industry, little has been done on using effective ways to promote the industry and its associated services such as accommodation from hotels (NBS, 2013). There is significant evidence that promotion of the industry has not managed to cover large scale of the market in the country. NBS Report (2012) showed that only 34.3% beds were occupied in 2013 leaving almost 66% of the beds unoccupied. The cost of promotion, government regulations and policies hinder the effective application of strong promotion mix strategies in hotels. According to VanArk *et al.* (2004) it has been observed that customers make purchase decisions of tourism service without getting information. Alternatively, consumers announced being aware of most of information, but found the information confusing (Campos & Hammond, 2011). These findings suggest that study on promotion in the hotel industry is premature despite being critically important.

Different tools for promotion are said to have different roles on awareness creation, persuasion and reminder of the Hotel industry choice. *Sales promotion* has been credited to boost sales of a product (Kotler *et al.*, 2018). Different hotels try to use short term discounts that lead tourist buyers come in droves and purchase as many services as possible and in doing so, generate increased sales. *Direct marketing* on the hand, directly elicit order for sales (NBS (2008). Some hotels try to use direct marketing to avoid costly *advertising* methods such as televisions, newspapers and radio (Lamb *et al.*, 2012). According to Max (2018) tourist people tend to think about ads online and great digital ads which give people clear choice. Baker *et al.* (2000) on the other hand, contend that *public relation* purpose is to make awareness with people, product, place and idea while Lamb *et al.* (2011) contend that *personal selling* purpose is to advice and motivate the customer to purchase or just taste the product. It is frightening that poor promotion strategies sometimes intrude the key principles of communication. In the view of German (2013) consumers have always been enjoying getting related details, but they are not excited in listening, even when marketers have something useful to state because of poor promotion methods. Moreover, poor promotion methods chase away clients that might have otherwise made purchases, or even provide to the loss of valuable clients, damaged trust and unfavorable perceptions of the brand. The incorrect image used in advertisement or even the incorrect set of words could make false assumptions for the hotels leading to poor performance of tourists' hotels (Adam, 2016; Adam & Tzamourani, 2016).

Despite promotion efforts in use, still most tourists' hotels do not give certain kind of details, give inadequate details or use technical jargons in the details causing customers not to bother reading or listening the information at all. Mwedady (2015) argues that promotion is understudied as the majority of the researchers have overlooked the aspect of promotion to the development of hotels in the tourism industry. Therefore, this paper examines the role of prmotion strategies on tourists' hotels performance in Tanzania, using the insight from the largest city of Dar es Salaam.. The main objective of this study is therefore to examine the extent to which advertising efforts, sales promotion, direct marketing, public relation and personal selling influence performance of tourist's hotels.

Theoretical Perspectives

This paper was informed by Hierarchy of Effects and Relationship Marketing theories. The *Hierarchy of Effects theory* by Robert J Lavidge and Gary A Steiner in 1961 (Kenton, 2018), proposes that it is the responsibility of the advertiser to motivate the customer to come across the six steps and attain or purchase the product. The steps entail; awareness, knowledge, liking, preference, conviction and purchase. A consumer notices various advertisements daily which brings *awareness*, but solely will remember the brand of a small portion of products. *Knowledge* of the consumer starts when the service or product is advertised using various communication methods. Increasingly, digital world *knowledge* has turned into more significant as consumers expect to obtain product knowledge at the single click. If consumers do not get the information that they need, drastically will move to competitors brand (Belch & Belch, 2003). The advertiser's task is to ascertain whether product details are accessible. Further, *Liking* of the product includes customer readiness to buy a product after detail search in the market. Moreover, *preference* includes being faithful to a specific brand in comparison with competitors' brand. At this stage, advertisers will want to pinpoint their brand's advantages and unique selling points so that the consumer can differentiate it from competitor brands. *Conviction* to a product is a stage of creating the customer's wish to purchase the product offered in the market place (Buzzell, 2004), Advertisers may persuade faith by letting consumers try the service or product. Lastly, *purchase* stage is the final stage from considering a product advertisement to product purchase. The advertiser may need the consumer to buy their product by impressing on the advantages of the service product to the consumer (Belch & Belch, 2003; Mishra *et al.*, 2021; D'Souza, Taghian & Brouwer, 2021). This stage needs to be direct and easy; otherwise, the consumer will be disappointed and reject to purchase the product. Companies should discover new communication methods of rising purchase behaviour among consumers. Modern technologies like mobile phone and online purchase should push competitive companies that operation costs get minimized, hence minimizing costs of operation. Even though the theory places emphasis on advertisement, but could inform the other four constructs on public relation, direct marketing, sales promotion and personal selling since the fundamental principles are the same.

A complementing theory of *The Relationship Marketing (RM)*, was developed from direct response marketing campaigns which insist on customer satisfaction and retention, rather than focusing on the choice of sales transactions (Alexander *et al.*, 2002). RM identifies the everlasting importance of customer relationships and increase communication beyond intrusive advertising and sales promotional messages. Acar *et al.* (2012) point out that advertisement brings strong relationship between the hotel services and potential and current customers. Since the internet and mobile platforms grow, relationship marketing continued to advance as technology opens more collaborative and social communication channels (Berglof & Bolton, 2002). The theory tries to surpass the easy post purchase-exchange process with a customer to create more honest and wealthier communication or promotion by giving a more complete, individualized purchase and uses the knowledge to make close relationship (Aaker & Joachimsthaler, 2000). Relationship marketing depend on the contact and attainment of consumer needs only from available customers in a cooperative advantages exchange normally including allowance for communication by the customer through an "opt-in" method (Kim & Arbel, 1998). Relationship marketing major rule is customer retention using various means and techniques to

ensure repeat purchase for the product or service by satisfying the needs and wants compared to those competitors (Albers-Millers & Straughan, 2000). This theory focuses on the value of the customers by creating good relationship between the customers and the company through direct communication on advertising, direct marketing efforts, personal selling, and sales promotion, thus it brings customers satisfaction and retention which improves business performance. Our position is that a much more customized promotion effort is therefore encouraged. This is in line with contention by Perčić and Perić (2021) who argue that the characteristics of a given target market are one of the main factors that need to be considered when selecting media to transmit a successful promotional message

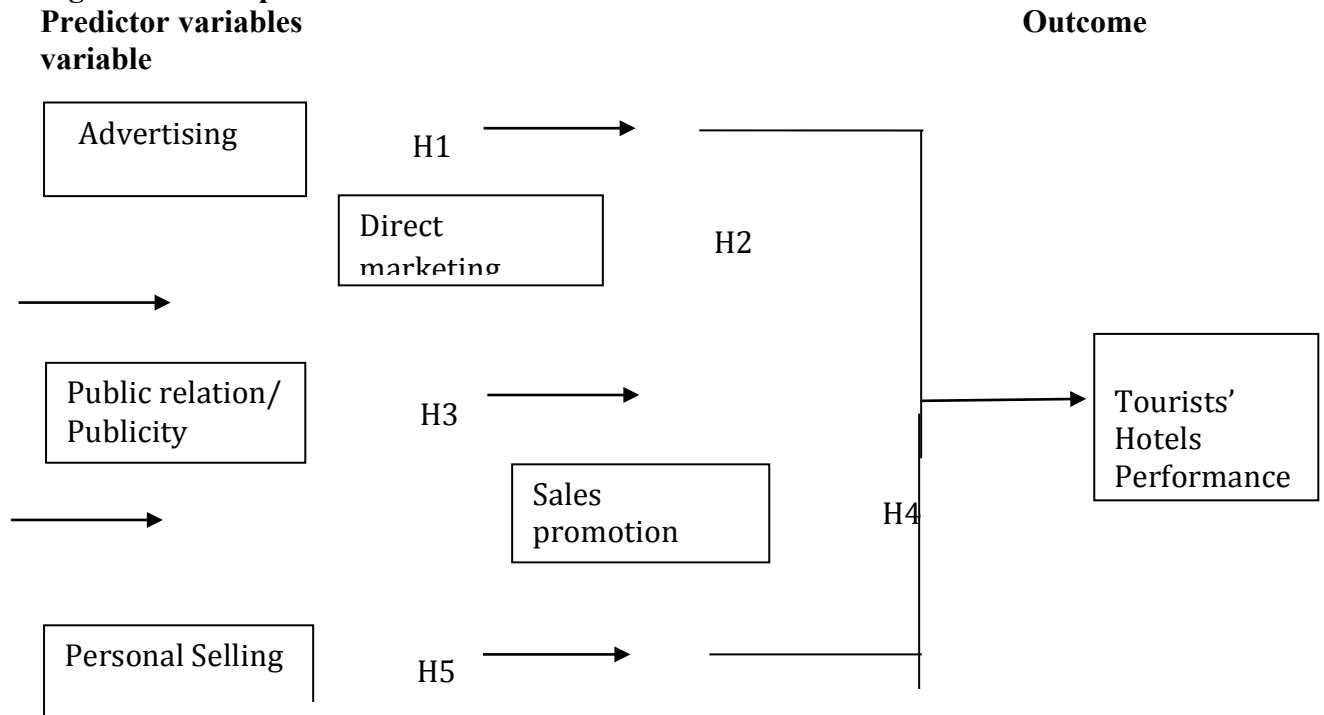
Related works

A review of various empirical works provides mixed results. Sarker *et al.* (2012) and Mubarak and Kaldeen (2017) found out that marketing mix (promotion inclusive) strategies adoption had significant influence on marketing performance of tourists' hotels in the in East lake China and Eastern province. Joly and Tous (2012) study on positioning strategy of a tourism destination in France indicated that promotion tools have a role in repositioning strategy, move up tourism destination in consumers' head and image formulation. A much more focused article by Noreyah and Hameed (2017) that examined the impact of advertisement, public relation, personal selling and sales promotion on the foreign tourists' mental images found sales promotion to be the least powerful promotion-mix element on the foreign tourists' mental images of the Jordanian tourist destinations. Furtherer, Masa'deh *et al.* (2018) study on the effects of direct sale, advertisement and website on job performance in the Middle East showed a powerful positive effect of hotels' advertisement and direct sale on hotel performance, whereas hotels' website had no powerful impact. Klein (2018) study on the role of brand in tourism hotel in South Africa showed that hotels with reputable brand had her rooms always occupied while Bentum-Ennin (2014) study in Ghana found that advertisements in social media lead to increasing of tourists to 21.8% and annul revenue by 13.9%. Related study by Talabi (2015) in Abuja and Jakobstad found advertising to be more effective when promoting hospitality industry. Corollary to this, Kamau *et al.* (2015) who examined the effects of the marketing mix on the choice of tourist accommodation by domestic tourists in Kenya revealed that the product/services location, price, people, physical evidence, processes and promotions were all crucial factors in identifying the choice of accommodation by local tourists. Coupled with this is Purity (2016) study on marketing strategies and performance of tourist hotels in Nairobi-Kenya who found out that advertisement components such as business events, press releases and social media marketing had a powerful relationship to the performance of hotels. More is a study on the effect of promotion on Uganda's tourism performance (Mwaura, 2012); it was found out that there was significant relationship between promotional tools and services offered from practitioners.

In Tanzania, Moshi (2009) studied on promotion techniques upon sales performance in the telecommunication industry. It was established that in all the promotion mix, personal selling was the most efficiently used by the organization.

Given the nature of the study, the following conceptual framework is developed to guide this paper..

Figure 1: Conceptual Framework



Source: From the Literature, (2020)

Five predictor variables which are advertisement, sales promotion, public relation (publicity), direct marketing and personal selling and one outcome variable which is tourists' hotels performance provide guidance for the article. Employees estimated Room Occupancy was considered a performance indicator in a tourist Hotel under study. (<https://guidingmetrics.com/content/hotel-industrys-14-most-critical-metrics/>).

Advertising and Performance of Tourists' Hotels

Advertising is any payment for demonstration and promotion of ideas, services, and goods by an identified sponsor (Dimaza, 2014). Studies reveals that people need advertisement at least seven times, regularly and consistently before one starts to be interested in it (Stenberg, 2015). Zikmund (2001) on the other hand, argues that advertising promotes services, ideas and goods in mass media such as apps, emails, display posters, motion apps, web pages, print medias, broadcast television, radio, billboards, mobile apps ad with the major goal of communication with consumers and rising sales. Shimp (1997) opines that advertising provides awareness to people about the brand which raise the brand equity which leads to better performance. In the Hotel industry, Masa'deh *et al.* (2018) assert that there is an important impact of hotels' advertisement on hotel performance. It was therefore hypothesized that;

Hypothesis (H₁): *Advertising has a positive influence on tourists' hotels performance.*

Direct Marketing and Performance of Tourist Hotels

Direct marketing is "marketing through various advertising media that interact directly with consumers, generally calling for the consumers to make a direct response" (Kotler et al., 1999:p.910) as cited in Perčić & Perić (2021). Alsmadi (2002) affirms that through website, customers get convenience way of buying the service, that influence repeat purchase of the service. On the other hand, direct marketing offers hotels benefits of services improvement due to direct feedback from customers. Al-Madi *et al.* (2013) argue that when direct marketing is implemented

correctly return on investment increases. According to Perčić & Perić (2021) direct marketing techniques are not just communication devices; they are also safe channels in their own right; For example, many companies (hotel industry is no exception) use direct channels such as catalogues, telemarketing, fax, the Internet etc. to sell their products. It was therefore hypothesized that:

Hypothesis (H2): *Direct marketing has a positive influence on tourists' hotels performance.*

Public Relation/Publicity and Performance of Tourist Hotels

Publicity refers to public awareness or observation for a product, service or business unit by putting commercially important broadcast in a published media (Olsen & Connolly, 2000). It builds the image of the product or service in a tourist Hotel. Tools for publicity promotions such as magazine articles or newspaper, radio presentation, TVs, seminars and charitable contribution stimulate discussion and interest. (Saunders *et al.*, 2000). This could equally be customized for a hotel industry. Therefore, it was hypothesized that:

Hypothesis (H3): *Public relation has a positive influence on tourists' hotels performance.*

Sales Promotion and Performance of Tourist Hotels

Sales promotion entails a short time promotion expected such as buy one get one for free (Olsen, 1991). Darko (2012) argues that, among events influencing actual buying of the product or service include timing of sales promotion, duration of validity of free services, type of services being discounted, displays of product or services, free sample offered for customer and trial free gifts accompanied with the purchase. They also include coupons, sweepstakes, contests, samples rebates and discounts. This could equally be customized for a hotel industry. It was therefore hypothesized that:

Hypothesis (H4): *Sales promotion has a positive influence on tourists' hotels performance.*

Personal Selling and Performance of Tourist Hotels

Personal selling entails face to face meeting with customers to influence each other (Lamb *et al.*, 2011). Lamb *et al.* (2013) assert that many hotels use conversations to drag prospective clients seeking details on products and services so that the demand for the product or service increase. When a personal selling process is used, the sales representative can get to know the consumer on a personal level. This can assist to bring customer loyalty with the prospect, which can provide future sales and better profit margins (Luke, 2019). Attributes for personal selling as used in this article are conversation, key account, suggestive selling and demonstration as applied in the hotel industry. It was therefore hypothesized that:

Hypothesis (H5): *Personal selling has a positive influence on tourists' hotels performance.*

METHODOLOGY

The study from which this article is crafted was conducted in the largest business centre of Dar es Salaam City in Tanzania. The region has major standard tourists' hotels and other recreational spots for tourists along the coast of the Indian Ocean (Philip, 2020). With those features, the region receives a large number of tourists from around the globe before they visit other areas in Tanzania and elsewhere. The study was predominantly though not exclusively guided by positivism philosophy (Bryman & Bell, 2007). This paradigm works on the assumption that knowledge is

objective and quantifiable, thus the research needs quantitative data to establish a research problem truth (Rallis & Rossman, 2003). The explanatory descriptive research design was applied to analyse a wide variety of quantitative data to investigate relationship among studied variables. This was complemented by qualitative data through which key informants were used for in-depth interview. The unit of analysis in this study was the individual managers/ owners of tourists' hotels who were drawn from 242 tourist hotels located in Dar es Salaam out of which 177 ranged from 1 to 3-star classes, 31 are 4-star and 19 are 5-star class (HAT, 2017). In addition, there were three (3) purposively selected key informants from Hotel Association of Tanzania (HAT), Tourism Confederation of Tanzania (TCT) and Intra-African Travel and Tourism Association (IATTA). These were considered appropriate because they had adequate knowledge in the tourism industry. These hotels were characterized by the relevant attributes concerning tourists' hotels which are service quality (Food, Beverage and free service 24/7), hotel attributes (Location, Animation activities, Restaurants, Sport facilities and Pools) and Destination (Ease of transportation, Sea and Forest) to obtain data from managers/owners (Combined, 2020). This sample size 80 randomly selected respondents was obtained using the formula by Kothari (2007).

$$n = \frac{z^2 \times p \times q}{z^2 \times p \times q + e^2} = \frac{(1.96)^2 \times 0.52 \times 0.48}{(1.96)^2 \times 0.52 \times 0.48 + (0.6)^2} = \frac{0.959}{1.159} \approx 80$$

Whereby;

n = Sample size

Z = Standard normal deviate, set to 1.96 corresponding to 95% confidence level,

p = Proportion of the respondents selected to participate in the exercise (set 0.52)

q = Proportion of the unselected respondents to participate in the exercise (set 0.48)

e = Degree of accuracy desired, set to 0.6

Structured questionnaires that applied 5-point Likert scale was used to collect quantitative data while interview guide was used to gather qualitative data from three (3) key informants.

Validity and Reliability of the Data

Validity and validity were checked before the instrument was subjected to a wider data collection. Validity shows the degree of valuation of the questions used in the questionnaire (Beer, 1993) in which case 10 respondents were selected for a questionnaire pretest. Corrections were made before a final check was made by an expert in the field of study. Reliability was tested using Cronbach Alpha. In line with Colin and Wren (2015) who suggest that Cronbach Alpha values in the data set amid variables from 0.7 and above imply that variables used in the research are consistent. This implies that the responses of the variables generated for the variables were reliable for the data analysis as shown in table 2.

Table 2. Reliability Statistics

No of Items	Cronbach's Alpha
Advertising	0.792
Direct marketing	0.746
Public relation	0.751
Sales promotion	0.773

Personal selling	0.734
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Source: SPSS Output, (2020).

Data Analysis Procedures

Data analysis was conducted using SPSS (21), where mean, standard deviation, and frequencies were generated. Multiple Regression analysis was then applied to ascertain the capacity of the connection between the 5 constructs and a dependent variable of tourist hotels performance.

RESULTS AND DISCUSSION

Respondents Profile

This section presents the demographic characteristics of respondents.

Table 3. Respondents' Profile

Variable		Frequency	Percentage
Gender	Male	53	66.3
	Female	27	27.7
Education	O level	3	3.8
	A level	8	10.0
	Certificate level	17	21.3
	Diploma	33	41.3
	Bachelor and Above	17	21.3
	Masters	2	2.5
Position	Director/owners	26	32.5
	Manager	26	32.5
	Marketer	21	26.3
	Others	7	8.8
Classification of hotels	one stars	8	10.0
	Two stars	25	31.3
	Three stars	21	26.3
	Four stars	26	32.5
Establishment	Less than a year ago	1	1.3
	1-2 years ago	3	3.8
	3-5 years ago	23	28.8
	6-10 years ago	37	46.3
	More than 10 years	16	20.0

Source: Field data (2020)

Respondents were asked to indicate their *gender*. The results in the table 3 above show that 53(66.3%) of the respondents were male while 27(27.7%) were female. This indicates that the study was not biased as it included both gender. In terms of *education level attainment*, it was found that 3(3.8%) of respondents had attained O-level of education, 8(10%) attained A-level level of education while 17(21.3%) obtained certificate level of education. At higher levels, 33(41.3%) achieved diploma level, 17(21.3%) reached bachelor level, and 2(2.5%) acquired a master's level of education. This implies that most of the respondents had attained a diploma level of education. There is an importance of raising their education for more skills.

According to Aissa and Goaid (2016) hotel efficiency among others depends on hotel characteristics such as management type, the tenure, education level of managers.

As for *position* of the respondents, the findings indicate that 26(32.5%) of the respondents were directors, 26(32.5%) were managers, 21(26.3%) were marketers while 7(8.8%) were in other positions. This implies that most of hotels are under managers and directors' management. With the *classification* of the Hotels, the results show that 8(10%) of hotels were one stars, 25(31.3%) were two stars, 21(26.3%) were three stars and 26(32.5%) of the respondents were four stars hotels. This indicates that most of hotels were four stars suggesting that most owners of the hotels prefer four star hotels to cater for the need of target market in need of such level of service.

As for of *year of establishment*, findings indicate that 1(1.3%) of the hotels were established in less than a year, 3(3.8%) hotels were established between 1-2 years ago while 23(28.8%) of hotels were established between 3-5 years ago. Moreover 37(46.3%) of the hotels were established between 6-10 years ago and 16(20%) were established more than 10 years ago. This indicates that most of the hotels were established beyond 6 years; implying that most of the tourists' hotels are not new in the market and more visitors are possibly among others to Aissa and Goaid (2016) argue that hotel efficiency among pother depends on hotel age.

Inferential Statistics

Model summary, ANOVA and regression analysis were computed to inform the discussion.

Model summary that provides information about the regression line's ability to account for the total variation on the dependent variable (ESS, 2012; Lafit *et al.*, 2021) was computed as shown in table 4.

Table 4: Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.8894 ^a	.7910	.6578	755.13

Table 4 above shows the R-Square results to be 0.7910, meaning that the independent variables (direct marketing, public relation, personal selling, sales promotion and advertising), explain 79.18% of the variability of the dependent variable (Tourists' Hotels Performance) in the population. This implies that the remaining 21.2% of dependent variable is attributed to other factors other than the 5 constructs under this study.

It was also important to ascertain through ANOVA to examine whether the general regression model is suitable for data. ANOVA was computed and generated the following

Table 5: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
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Regression	93.190	5	18.638	26.116	.000 ^b
Residual	52.810	74	.714		
Total	146.000	79			

The results indicate that, in general, the regression model statistically predicts the outcome variable significantly since the Sig value is 0.000, which is less than 0.05. Furthermore, correlation analysis (table 6) provides Pearson r correlation coefficients between independent variables (advertising, sales promotion, direct marketing, public relation, personal selling) with the purpose to establish the multicollinearity effect on a dependent variable.

Table 6 Correlations

	Advertising	Sales promotion	Direct marketing	Public relation	Personal selling
Advertising.	0.6432*				
Sales promotion.	0.1708*	1.0000			
Direct marketing.	0.4559*	0.0199	1.0000		
Public relation.	0.4618*	-0.4021	-0.3139	1.0000	
Personal selling.	0.2376	0.0342	0.0318	0.02347	1.000

Source: Field data (2020)

The findings in Table 6 above indicate that there is possible existence of multicollinearity problem between advertising and these other four constructs. Nevertheless, whether such influence is significant as to affect the individual influence of each construct on a dependent variable depends on variable inflation factor (VIF) results, as depicted in a table 7 below.

In this study, regression analysis was used to analyze the relationship between the independent variable and dependent variables (Frost, 2020) as modeled in table 7.

Table 7. Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Sig.	VIF
Advertising	.037	.039	2.27	.025	2.384
Sales promotion	.010	.008	1.24	.021	2.653
Direct marketing	.257	.073	3.52	.001	3.875
Public relation	.021	.003	6.53	.000	2.764
Personal selling	.012	.096	1.34	.182	1.732
	.188	.093	2.01	.046	

Source: Field Data (2020).

The study aimed at finding the influence of 5 independent variables on a dependent variable. A multiple regression analysis was conducted to assess role of promotion mix components on tourists' hotels performance in Tanzania. The results show that 4 independent variables, namely direct marketing, sales promotion, advertising and public relation produced statistical positive significant results ($p < 0.05$). On the other hand, personal selling produced statistically insignificant results ($p > 0.00$). The modeled equation is therefore:

$$Z = .188 + (.037) Y_1 + .010Y_2 + .257Y_3 + .021Y_4 + .012Y_5 + e$$

Where Z represents the Tourist Hotel performance, while Y1= Advertising; Y2= Sales promotion; Y3:= Direct marketing; Y4= Public relation; Y5= Personal selling.

Moreover, Variable Inflation Factor (VIF) shows the values are less than 10 suggesting that there is no significant multicollinearity problem amongst the constructs (Men, 2016). This means the independent variables included in the model are not substantially correlated with each other (Wang & Rhemtulla, 2021; O'brien, 2007).

Discussion of the Findings

Regarding the influence of *advertising on tourists' hotels performance*, the results revealed that there is a strong positive influence of advertising on tourists' hotels performance ($P < 0.05$). This implies that advertising is the key factor on tourist hotel performance. However key attributes of advertising tend to differ in terms of their influence on hotel performance. Through advertising attributes, descriptive findings showed that the use of posters in advertising has most influence on tourists' hotels performance, followed by the use of print media, and the use of radio, then the use of billboards and lastly by the use of television (TV). The findings are in line with one by Oden (2020) in Enugu Metropolis who found out that advertising plays an important role in effective marketing of hotel services and maintenance of large market share. Moreover consumer sees advertising as a very good programme because of the entertainment rhythm. It was also found out that there are many communication media available to hotels in advertising their services such as radios, print media and electronic media. Masa'deh *et al.* (2018) who investigated the effects of promotional mix in terms of direct sale, advertisement and website on job performance during the political crisis in the Middle East found out that there was a powerful positive effect of hotels' advertisement and hotels' direct sale on hotel performance. Further, Chen and Lin, (2015) study revealed that concentration on advertising intensity in the room service market has the strong relationship with hospitality industry. In an in-depth interview, one respondent from the top position of the Tanzania tourist board (TTB) had said:

Advertising influences the hospitality industry in high level through reaching the large number of people; billboards, print media, broadcast media (radio and television) and displays delivers commercial messages and promotional information to mass audience Nowadays tourists hotels managers utilize them to get ahead of the competition.

Moreover, when interviewed another key informant from the top position of the Hotel Association of Tanzania (HAT) said:

Despite all tools for promotion being important, the use of social media and television advertising appear to be most influencing when it comes to tourist

attraction in the hotel industry in that it covers wide geographic location and is effective in terms of time.

On the influence of *sales promotion on tourists' hotels performance*, the results revealed that there is a positive and significant influence of sales promotion on tourists' hotels performance ($P < 0.05$). The study revealed that coupons, discounts, product samples, rebates and contests in sales promotion significantly relate to tourists' hotels performance. Through descriptive findings, sales promotion attributes show that coupons in sales promotion has most influences on tourists' hotels performance followed by discounts and the use of contests; next being the use of product samples and lastly rebates. The study finding match with one by Jones, (2005) who studied on the effect of Point of Sale (POS) on the alcohol purchasing behavior of young people in metropolitan, regional and rural Australia and revealed a strong link between POS promotions and alcohol consumption behavior. Overall, participants revealed a strong remembrance of earlier promotions and nearly all participants demonstrated that they had been influenced to purchase for great extent or a particular brand of alcohol for the reason of a promotion. Moreover, Darko (2012) argues that, among events influencing actual buying the product or service include timing of sales promotion, type of services being discounted, displays of product or services, free sample offered for customer, trial free gifts accompanied with the purchase. Moreover, one of the top directors from the TTB had this to say;

Sales promotions is particularly suitable for the use in hotels; seasonality increasing competitiveness, price discounts, free accommodation, new product launches and deal proneness are currently being offered as inducements to existing and prospective users of hotel accommodation. These translate into include price discount, vouchers /coupons additional customer benefits and privileged customer service.

The other key informant from the Tourism Confederation of Tanzania (TCT) had this to say:

Sales promotion is expected to have impact by offering discounts which attract tourists due to reduced costs on their parts; so tourists will become encouraged to accommodate more days at the hotels hence cover up for shortage of customers.

Similarly, findings on the influence of *direct marketing on tourists' hotels performance* indicated that there was a positive and significant influence of direct marketing on tourists' hotels performance ($P < 0.05$). The study showed that the use of direct mail, e-mail, Internet marketing, telephone and telemarketing relates to tourists' hotels performance. Through descriptive findings, direct marketing attributes indicated that Internet was the most influencing on tourists' hotels performance, followed by the use of telephone and telemarketing, then direct mail and lastly the use of email. The study findings are in concurrence with Shuai and Wu (2011) whose findings showed that Internet marketing had positively influenced the operating performance of tourist hotels in Taiwan. Moreover, Kamau *et al.* (2015) found out that product/services location, emails, price, Internet, people physical evidence processes and promotions were all crucial factors in identifying the choice of accommodation by local tourists. The findings are seconded by one of the top directors from the TTB who had this to share:

Most hotels provide direct booking on their own web page; which provides a great opportunity to design a positive guest experience and hopefully boost

sales. Online and Internet marketing have become more crucial activities for hotels of all shapes and size because the guests have moved online.

One of the other top directors at Intra-African Travel and Tourism Association (IATTA) had this to say:

The advantage of mails, Internet and telephone is to have personal touch relationship with their customers and builds long term relationship with new customers. Therefore, tourists' hotels should appropriately use them; Hotels are capable of improving sales once they have good relationship with customers.

As for the influence of *public relation on tourists' hotels performance*, findings indicate that there was a positive and significant influence of public relation on tourists' hotels performance ($P < 0.05$). The study found out that newsletters, business events, press release, and social media marketing positively influence tourists' hotels performance. Through descriptive findings, public relation attributes show that social media in public relation has most influence on tourists' hotels performance, followed by business events and the use of press release, and lastly newsletters. The study findings match with one by Mutsa *et al.* (2011) who found out that public relations helps to create a good public image for a firm, assist new product launches and sales, assist a firm to determine public attitudes and contacting the general objectives of the firm and it can also be used to handle any negative issues. Furthermore, Michael and Ilkka (2009) contend that, marketers are working on establishing companies to the public to rise sale, differentiate product and services and impress employees. One of the top directors from the TTB who had this to share:

Public relation becomes more important for the hotel industry because of newsletters, articles, press releases, and direct solutions. Social media is more effective because its use makes less print at low cost and varied specific details. Moreover, it is possible to deliver message to the target market by the utilization of storytelling about the strength of the hotel.

One of the other hands a director at IATTA had this to say:

The most influencing attributes for tourist's attraction are press release and social media; they build positive image of the hotels, attract more tourists and give the hotel credibility thus improves performance of hotel in terms of sales by having more tourists preferring the hotel compared to competitors.

Regarding the influence of *personal selling on tourists' hotels performance*, the results show that overall there was positive but insignificant influence of personal selling on tourists' hotels performance ($P > 0.05$). The study revealed that key accountant, conversation, suggestive selling and demonstration relates to tourists' hotels performance. Through descriptive findings, personal selling attributes show that key accountant in sales promotion has more influences on tourists' hotels performance, followed by conversation and the use of suggestive selling and lastly demonstrations. The inferential findings however, differs from a study by Muchina and Okello (2016) in Nairobi central business district who concluded that there has been significant relationship between personal selling and hotel performance. A further contrast by Charles (2017) opines that, promotions that combine personal selling technique are the best in improving the tourism industry. When a personal selling process is used, the sales representative can get to know the consumer on a

personal level. This can assist to bring customer loyalty with the prospect, which can provide future sales and better profit margins (Luke, 2019).

In support of the finding one of the key informants at IATTA said:

Personal selling is not effective enough compared to other promotion methods because it is an extremely labour intensive; a large sales force is required to carry out personal selling successfully. The training of salesperson is also time consuming, costly process and a method can only reach a limited number of people.

Moreover, when interviewed another key informant from the HAT had this to say:

Personal selling is one of the expensive ways of promotion since it requires many resources and it might be not effective enough compared to advertising. It is however important as it can influence tourist hotel performance through contacting one to one customer and give the required details about the hotels and clients to be able to share their experiences with them and feedback.

CONCLUSIONS AND RECOMMENDATIONS

The thrust of the article was to examine the role of promotion mix components of advertising efforts, sales promotion, direct marketing, public relation and personal selling on tourists' hotels performance in Tanzania. Data were collected from 80 respondents in the tourists' hotels at Dar es Salaam. The findings indicate that four variables, namely advertising, sales promotion, direct marketing, public relation and personal selling were strong predictors of tourists' hotels performance, but personal selling did not significantly account for tourists' hotels performance. A number of recommendations are provided from the findings:

In terms of *advertising*, the top Management of the tourists' hotels should include advertising budget in the operating costs, use more of television (TV) media of advertising than others and introduce more posts and print media like magazine for travelers and many people to read in the weekend. On the other hand, flyers are a great way to promote hospitality. Booklets and brochures should show customer what one offers in a clear, concise, and visually appealing manner.

On the aspect of sales promotion, hotel managers need to state the offer clearly and make it easily recognizable. They should look at more innovative media to deliver coupons. Providing free stuff, a cash discount, promotional sample, first-time deal, loyalty card, event invitation, and gift to attract customers to buy the product is essential.

Direct marketing should also be considered as it remains a powerful way to get hotels message across direct mail. The majority of people in Tanzania and elsewhere are internet users. Hence, managers of hotels should devote concentration on using Internet. The email, no matter how enticing, has to reach the inbox before it can work. Always hotels should offer an incentive such as offering a discount, promo code, or freebie makes. It is more likely that ones recipient will open the email and buy the service or product. They should also integrate with other channels like social media and website to boost the direct marketing returns.

It is further recommended that, Managers should use more of social media because information spread quickly and reaches a large number of people shortly. Platforms such as Facebook, YouTube and Twitter are important channels for responding to a crisis. Preparing press releases is probably the most popular and widespread public relations activity. The headline should give clear idea of the subject. Hotels should preferably use durable business events.

Policy implications

The government is urged to promote promotion mix components by lowering taxes on tourists' hotels. This will reduce cost of hotel services. The government of Tanzania through tourists' board needs to come with a policy that will be promoting adoption of promotion mix components on the basis of the most influencing constructs and attributes given that resources are mostly limited. Proper planning and application of marketing principles to the tourism sector could help tourists hotels to achieve higher levels of performance through tourism. The policy makers should be focusing on framing of appropriate policy and programs that could help the tourist Hotels to market their offerings to potential tourists. This would however need the efforts on the social and political fronts, at the national and global levels, to remedy the basic structural weaknesses that hinder the tourism industry. It will also need a large amount of conceptual thinking by the country's decision making authorities and politicians, to enhance the image of the country as a potential tourist destination.

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Abstract

Introduction

The past microfinance organizational research investigates the chief executive officers (CEOs) characteristics and its influence on microfinance organizational statics (Galema, Lensink, & Mersland, 2012; Randoy, Strom, & Mersland, 2015). This study investigates the CEOs characteristics and its influence on microfinance organizational dynamics (Ndaki, Beisland, & Mersland, 2018). Specifically, the study investigates microfinance organizational change (CEO succession, long CEO tenure, and organizational growth) and its impacts on the microfinance mission to serve the poor with banking services. Thus, this study investigates whether CEO succession or long CEO tenure under poor performance in microfinance institutions (MFIs) over time reflects mainly existing mission adaptation or mission replacement.

Scholars in the strategy and organizational change has different views with regard to the role of Chief executive officers (CEOs) on organizational change (Gersick, 1994). A new CEO or long tenured CEO in an organization is likely to modify the organizational strategy so as to adapt to the contingencies surrounding the organization environment (Child, 1972). Such change of strategy is likely to happen because CEOs in an organization continually monitor environmental change. The other view is that organizations have little ability to adapt, that is, their ability to adapt is constrained, hence strategy in such organizations are not drastically changed, they are preserved (Hannan & Freeman, 1989).

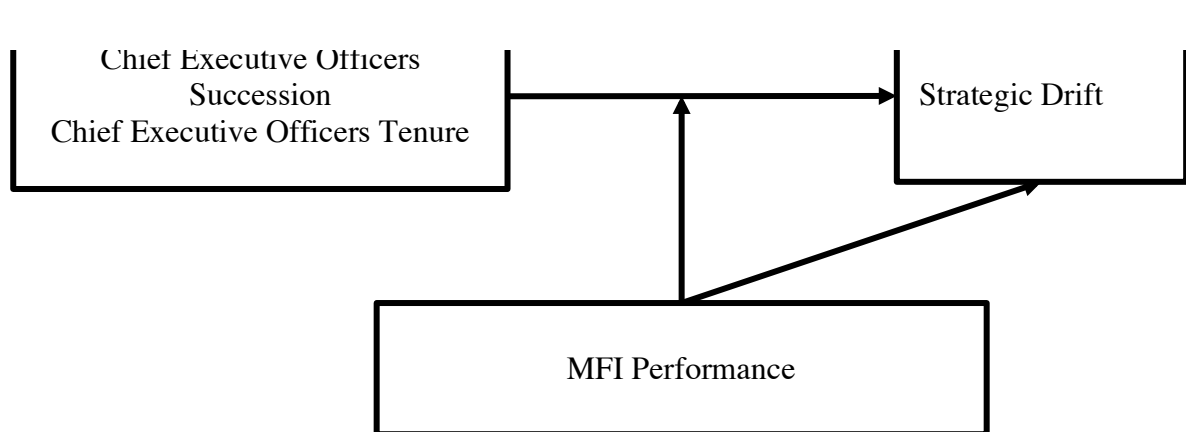
The view of organizational inertial to strategic drift is overcome by change in the executive leadership. Executive leader has both the position and power to initiate, modify and implement a change in organizational strategy (Eisenbach, Watson, & Pillai, 1999; Ocasio, 1993; Tushman & Romanelli, 1985). As CEOs remain in power for a long time, they are not likely to deviate from the earlier organizational strategy (Goodstein & Boeker, 1991; Rigolini, Gabaldon, & Goldeng, 2021).

In addition to the CEO change and long CEO tenure, poor performance could overcome resistance to MFIs and strategy drift (Haveman, 1993; Simon & March, 2006). Specifically, the performance of MFIs can be one of the indicators whether it will change the loan size, abandon serving women clients, shift from serving group loans to individual loan, and shift market concentration from rural markets to urban market. Poor MFIs performance signals that the current markets and manner of operations no longer fit with the manner with which the organization is conducting its operations, and that strategic drift may be the available option (Staessens, Kerstens, Bruneel, & Cherchye, 2019).

In this study we examine the dynamics of change in MFIs strategic drift, which refers to decision about the loan size, focus on women, lending to groups, and MFIs focuses on rural markets (Mersland & Strom, 2010). Previous research in microfinance has typically not empirically investigated strategic drift as a function of the combined effects of MFIs performance, CEOs succession and CEO tenure. As indicated in figure 1, the main purpose of this study was to examine a combined model of strategic drift that consider the direct and interactive effects of MFI performance, succession of CEOs in MFIs and CEO tenure on strategic drift— that is, whether MFIs in which CEO succession occurred, have long tenured CEOs and poorly performing are still

offering small loan size, shift their focus from women borrowers, offer few group loans and shift their market from rural markets to urban markets.

Figure 1 Managerial Characteristics, MFIs performance, and MFIs strategic Drift



Strategic Drift: Theory and Hypotheses

The role of MFIs performance

The past empirical evidence has shown that CEOs engage in organizational change following declining performance (Cyert & March, 1963; Kiesler & Sproull, 1982). Poorly performing organizations search for solution that eventually pressure the organization to seek for change (Simon & March, 2006). Declining performance signals that existing mode of operation is inappropriate, thus, it causes CEOs to carryout organizational change (Tushman & Romanelli, 1985). Executives in organizations that are experiencing poor performance are in position to act and gain their legitimacy to strategy drift from the declining performance (Cannella, Hambrick, Finkelstein, & Cannella, 2009). Accordingly, poor performance of an organization is likely to lead to more strategic drift and taking more risk (Bromiley, 1991).

Since poor MFIs performance may lead to organizational change, good performance may lead to resistance to change, that they will have tendency to stick to earlier established routines of operations (Cragun, Nyberg, & Wright, 2016). Generally, MFIs organizational better performance could be associated with inertia, that is, resistance to MFIs organizational changes. MFIs which are successful could induce CEOs to think that changes are not necessary. MFIs in which have recently recorded successful performance are likely to maintain their missions and strategies (Ndaki et al., 2018). The more the MFIs have long experience in being successful the greater the level of resistance to change in their mission and basic strategies.

***Hypothesis 1:** MFIs performing poorly will exhibit greater strategic drift than successful MFIs.*

Chief Executive Officer Characteristics

Chief executive succession

Past microfinance studies document that leaders in the executive position are viewed as the motivated agent, hence, they hardly engage in strategic drift of the market

niches they compete in (Randoy et al., 2015). However, because of the CEO position in the organizational executive order, and the dynamic surrounding the organization, CEOs may help to define the strategy of the MFI, hence, CEO succession could exacerbate change in the MFI's strategic drift. In other organizational form, empirical evidence shows that organizations in which CEO succession occurred are associated with organizational change, thus, organizations that changed their CEOs are more likely to experience greater organizational change (Helmich & Brown, 1972). Thus, studies investigating the effects of CEO succession on strategic drift and organizational change stress the critical role executive play in overcoming organizational resistant and initiate strategic drift of an organization (Helmich & Brown, 1972).

When CEO succession occur in MFIs, the new CEO institute control and brings in refined perspectives and skills — including fresh ideas on the range of strategies to tap into new market potentials that the MFI should compete to sustain its mission. Because CEO succession quite often involves change in the way the MFI operates, it might be associated with deviation from the established norms and expectations of mission attainment. Mersland, Beisland, and Pascal (2019) examined how an internally recruited CEO succession in MFIs was able initiate change in strategies that led to an increase in profitability, lower operational costs, and risks reduction. The results implies that CEO succession in MFIs could positively disrupt the MFIs internal power structure and strategies to limit strategic drift that favor smaller loan size, gender preference, group loan preference, and rural market preference. The choice of serving rural market is best suited to MFIs mission because for example, most poor borrowers are in rural villages. The process of CEO succession in MFIs offers opportunities for existing internal power structure to be altered to limit strategic drift, and for sustaining the MFI mission.

Hypothesis 2a: *MFIs in which CEO succession has occurred are associated with lesser strategic drift than those MFIs in which no succession has occurred.*

The impact of MFI poor performance (Hypothesis 1) and CEO succession (Hypothesis 2a) on strategic drift could be complementary and respectively supporting. MFIs experiencing poor performance and in which CEO succession occurred are likely to engage in decisions that re-affirm the mission of providing banking services to the poor while remaining financially sustainable. In addition, posture towards the mission of MFIs following poor performance and CEO succession reflect perception of CEOs in fulfilling the goals set for the mission-oriented microfinance. Regarding the CEO position of leadership and control, fulfilling the mission reflect a preference for an easier life or status for defending the mission of the MFIs. In such context, CEOs in MFIs in which succession has occurred may choose to ignore poor performance and respond positively to ensuring that the MFIs achieve better social mission performance. Accordingly, MFIs distinguish itself from other form of organizations because they receive societal support and public legitimation as agents for accomplishing altogether the social development and financial sustainability objectives (Suchman, 1995). The impact of MFI poor performance may interact with CEO change, resulting in a less strategic drift when the MFIs simultaneously experiences both a CEO change and declining performance.

Hypothesis 2b: *Poorly performing MFIs in which CEOs succession occurs will have lesser strategic drift than successful MFIs with CEO succession.*

Chief executive officer (CEO) tenure. Like non-mission-oriented organizations, events for CEO succession in MFIs are rather rare. Even without CEO succession events occurrences in MFIs, the time in which the CEO have stayed in the position may have a noticeable influence on the strategic drift. Past study document that organizational tenure affects CEO cognitive ability. Long tenured CEOs are more rigid and are committed to established practices and policies (Katz, 1982). Furthermore, as CEO tenure advances, their ability to process information gradually diminish and become accustomed to established procedures and repertoires when solving organizational strategic issues (Alexander & Lee, 1996). Past studies report that long tenured CEOs are significantly attached to the organization status quo than short tenured CEOs (Hambrick, Geletkanycz, & Fredrickson, 1993). Furthermore, empirical evidence indicate that long CEO tenure is associated with less strategic change, that is CEO tenure has a positive and significant relationship with lack of strategic change (Finkelstein & Hambrick, 1990). Ndaki et al. (2018) document that long CEO tenured in MFIs are motivate agent, and that are less likely to initiate changes to the MFI. Accordingly, as CEO tenure in her or his job increases, she or he become more aligned with the MFI mission. In MFIs, CEOs past behaviors, repertoires, and precedents of mission—outreach to poor people with financial services increasingly confine and define the actions that a CEO will take. As time increases, it become particularly impossible to break old behaviors and reasoning patterns, specifically about the mission of an MFI. MFIs with long-tenured CEOs are less likely to engage in strategic drift.

***Hypothesis 3a:** MFIs with long-tenure CEOs will experience lesser strategic drift than those with shorter-tenured CEOs.*

Similar to the case of CEO succession, MFIs performance may interact with the CEO tenure. MFIs with shorter-tenured CEOs are more likely to change the MFI strategy, but the effect is likely to be much stronger when MFI performance has been is poor. Alternatively, better performing MFIs with longer-tenured CEOs could less likely engage in strategic drift.

***Hypothesis 3b:** Poorly performing MFIs with longer-tenured CEOs will experience lesser strategic drift that better performing MFIs.*

Data and Methodology

Data

The study applies an updated dataset that previously researchers (Randøy, Strøm, and Mersland (2015)) in the microfinance industry has used. The sample was drawn from available public MFIs rating reports during the period of 1996 to 2014. The largest commercial MFIs do not form part of the sample, hence are excluded. Normally these larger commercial MFIs are rated by the largest credit rating agencies like Standard and Poor's (S&P) or Fitch Ratings. Accordingly, the sample includes MFIs rated by the top five rating agencies that focuses on rating MFIs. These agencies include Planet Rating, MicroRate, Crisil, M-Cril and Microfinanza. The microfinance assessment reports are available through the rating agencies websites or other sites for example www.ratingfund2.org. The microfinance rating agencies are approved by the Consultative Group to Assist the Poor (CGAP). Information available in the assessment report include basic MFIs information, its governance, management, financials, and MFIs operations.

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Emmanuel Chao⁴

Systemic Entrepreneurship In Higher Education Institutions

Abstract

The literature on entrepreneurship acknowledges the fact that, though individuals practice entrepreneurship, its transformation nature can be well understood from the system perspectives. There is a high level of interdependency of entrepreneurial activities in systemic entrepreneurship which goes beyond routine forms of industry-academia collaboration; it engages several other stakeholders in the process of creating knowledge. Systems within and outside the institutions have a significant role in shaping the outcomes of entrepreneurship efforts. This paper provides an overview of the role of higher education institutions (HEIs) in shaping the system perspective of the entrepreneurship.

⁴ Supported by Sustain Project

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Session A01

1300-1400/ Tuesday, September 12th, 2018/Meeting Room: A

PHD Colloquium

Session Chair: Dr. Gabriel Komba, Mzumbe University, Tanzania

**Crowdfunding success: a systematic literature review
complemented by a bibliometric analysis**

Amy Ann Vik, Agder University, Norway

ABSTRACT