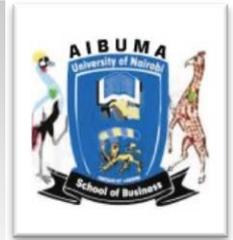




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IS THERE ANY SIGNIFICANT EFFECT OF BUSINESS PROCESS RE-ENGINEERING STRATEGY ON SERVICE DELIVERY IN THE CONTEXTUALIZATION OF FOOD MANUFACTURING COMPANIES IN KENYA?

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Abstract

The main objective of the study was to determine if there any significant effect of business process re-engineering strategy on service delivery in the contextualization of food manufacturing companies in Kenya. Accordingly, the study sought to determine the effect of business process re-engineering strategy on service delivery of companies manufacturing food in Kenya. The population of the study comprised of the company's manufacturing food in Kenya. A descriptive cross-sectional survey design was adopted in data collection and analysis. Primary data was collected from respondents using a structured questionnaire, while secondary data was collected from published firm's reports. Out of the 75 respondents targeted by the study, 44 respondents forming 56.67% response rate, which was considered adequate for analysis with good representation from all the subsectors. On hypotheses testing, it was established that, 58.1% of variations in the service delivery are explained by variations in the BPR strategy namely resources mobilization for BPR, sponsorship and commitment, BPR cross-functional teams, analytical processes selection, BPR prototypes, management of re-engineered processes, clear BPR definition and vision. Thus, there is a significant relationship between BPR strategy and service delivery of companies manufacturing food in Kenya. H_{A1} is therefore supported. In conclusion, the study confirmed that there is a positive and statistically significant relationship between BPR strategy and service delivery of companies manufacturing food in Kenya, where 58.1% of variations in the service delivery is explained by variations in the BPR strategy namely resources mobilization for BPR, sponsorship and commitment, BPR cross functional teams, analytical processes selection, BPR prototypes, management of re-engineered processes, clear BPR definition and vision. The results therefore support the anchoring theory of resource advantage theory.

This study has contributed in different areas including implications to theory, policy, management practice and methodological contributions as discussed in the subsequent paragraphs. First, this study has advanced frontiers of knowledge from the study findings; this study confirms that today's competitive environment compels organizations to re-engineer their business processes to effect perfect service delivering for customer satisfaction which eventually leads to improved overall FP (Hussein, Bazzi, Dayekh & Hassan, 2013; Jurisch, Ika, Wolfgang, Wolf & Kurcmar, 2012). The research findings have addressed the key gaps in this study. Secondly, this study has contributed to theory: the empirical relationship between BPR strategy and service is significant where BPR strategy constructs independently and positively influences improvements in service delivery with four significant predictors: resources mobilization for BPR; BPR cross-functional teams; sponsorship and commitment of top management; and the management of re-engineered processes. This study confirms and supports the use of resource based view theory. Thirdly on the study's policy contributions: the study will guide policy makers to develop BPR strategies that will lead to improved service with the understanding that improved business processes facilitates organizations to maximize the value addition which eventually leads to improved service delivery. Lastly on the methodological contributions: key methodological contribution is the use of a quantitative composite index in computing the SD index, the use an integrated empirical model to test the relation between BPR strategies and service delivery; the study used a number of indicators to measure each construct, which improved the construct validity.

Key words: *Business Process Re-Engineering Strategy, Service Delivery, Food Manufacturing Companies and Kenya*

Introduction

These endeavors remember expanded correspondence and straightforwardness for the organization side and improved guideline and oversight on the government requirement side. Overall, with expanded endeavors, time will be required to reestablish brand trust subsequently the need to reengineer for improved service delivery (Yubao, Luca, Yinghua, Patrick and Xuehe, 2017).

Champy and Hammer, (1993) asserts that business process re-engineering is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical measures of performance such as cost, quality, service, job satisfaction, and speed. BPR is a significant, clearer and simpler management approach of getting things done in a superior manner to accomplish an extreme enhancement for quality, speed, client care, and decrease in cost. BPR strategy is therefore the latest management 'buzzwords' aimed at making organizations instrumentally competitive (Goll & Cordovano 1993; Ringim et al., 2011).

Furthermore, BPR strategy leads to improved service quality and subsequently the delivering speed by reducing the process duration in, fastening decision making, enhancing communication, limiting deferrals in serving a customer, and shortening the service delivery period (Laudon & Laudon; 2006; Martonova, 2013). Service delivery is novel system that offer customers more noteworthy comfort aimed at improving the firm's competitive edge. Any organizational transformation strategy and IT innovations will radically have some influence in the

service delivery of the firm over time. However, there has minimal scholastic research on service delivery and related innovations (Lovelock and Wright 2002; Hunt 2004Ja-Shen, Hung, & Astrid, 2009). This intended study will use bundle of services and product value as product package delivery metrics.

An integrated model to study the concepts of business process re-engineering strategy and service delivery of a firm relates to the Resource Based View hypothesis/theory usage, is therefore the most suitable theory.

Research Problem

Without a doubt, the revelation of the BPR strategy and methodology has always been of great critical value to organizations. In lessening operational expenses and improving delivery speed, BPR connects customers to the organization's internal operations through improving business value optimization; often by adjusting and linking internal operations with the customers and suppliers (Mmereki & Kgomotso, 2013). As indicated by several past studies, BPR turned into a valuable weapon when seeking service delivery improvement in the contextualization of manufacturing companies (Attong & Metz, 2012; Bryson, Crosby & Bloomberg, 2014). The following research gap has been tended to in the investigation.

In 2017, the food manufacturers' expected risks outnumber opportunities, which forced them to contemplate item names like never before. This implies that food manufacturers need to develop products with decreased (or no) salt, sugar, trans and immersed fats, and without settling on season (World Bank, 2017).

The present serious condition propels organizations to BPR to effect perfect SD for customer satisfaction (Hussein, Bazzi, Dayekh & Hassan, 2013; Jurisch, Ikas, Wolfgang, Wolf & Kurcmar, 2012). In this manner, BPR delivers customer satisfaction by strengthening the firm's competitive edge in the market place. Hence BPR and SD can be tested on the companies manufacturing food in Kenya within which these two study variables manifests themselves.

There are clashing outcomes and conflicting results on the on the influence of business process re-engineering strategy on service delivery (Kuwaiti & John, 2000; Chang, 2012; Santos-Vijande et al., 2013; Oberoi, 2016; Chris, 2018) who showed business process re-engineering improves firm performance particularly service delivery dimension whereby the concept of business process re-engineering strategy in enhancing service delivery isn't sufficiently understood and comprehended as most studies. These two conflicting concepts call for a conceptual model through a study to reconcile them through an investigation into effect of business process re-engineering strategy on service delivery in the contextualization of manufacturing companies.

Overall, the present study sought to determine the relationship between business process re-engineering strategy and service delivery of food processing companies in Kenya. In this way, the accompanying exploration addresses guided this investigation: Does the business process re-engineering strategy affect the service delivery of companies manufacturing food in Kenya?

Research Objectives

The overall objective of the study was to determine if there any significant effect of business process re-engineering strategy on service delivery in the contextualization of food manufacturing companies in Kenya.

Accordingly, the study sought to determine the effect of business process re-engineering strategy on service delivery of companies manufacturing food in Kenya.

Literature Review And Hypotheses Development

The section reviewed both theoretical and empirical literature relevant to the study. The relation of the study's main variables were then be summarized in a conceptual framework.

Theoretical Review

In the Resource-Based Theory, business capabilities and resources such as organizational and managerial expertise, human capital and management of knowledge have the ability to result to value when strategy is matched with such resources (Miller, 2006). According to the theory, economic value of a firm is created by not merely matching with other organizations but by coming up with services and products that have the same or greater benefits at a cost that is lower or same as the competition. MacLean et al., (2004) recommended that firms need to focus on resource competence as opposed to product market in the global turbulent business environment. RBV theory provides a better understanding on the interaction between BPR strategy and service delivery particularly those that manufacture food in Kenya.

Implications of the RBV for the study:

BPR strategy can be seen as overarching capabilities or competences which are able to develop radical improvements through complex activities aimed at achieving superior services which will further create some effect on the relationship between BPR strategy and service delivery thanks to the individual resources of the firm (Hughes, 2005, p.8).

Anecdotal evidence has proved that some organizations are better organized than others depending on how well the how well internal resources are invested in strategy implementation. In reference to service delivery, the RBV includes intangible assets of enhancing customer satisfaction (Prescott and Bhardwaj, 1995 and Comai, et al. 2005). This study uses a number of tangible assets to operationalize the construct of BPR strategy and service delivery.

Theory of Constraints technically looks at methodologies whereby the actual processes are improved by following prescribed steps. Selecting the appropriate methodology for use requires further understanding and research. Nave, 2002, suggested an approach to selecting the right methodology for use that is usually posed as a hybrid that fulfils the purposes of implementation of BPR strategy and enhanced service delivery when it comes to process redesign (George, 2003). The Theory of Constraints is therefore a process improvement methodology that emphasizes the importance of identifying the "system constraint" or bottleneck. Focusing improvement efforts to better utilize this constraint is normally the fastest and most effective way to improve profitability (Furterer, 2009), therefore a selection approach should focus on

broader aspects of use than just the purpose and should include methodology hybridization and organization integration components for superior service delivery.

Empirical Literature Review on Business Process Re-Engineering Strategy and Service Delivery

The empirical review underneath depends on the above hypothetical review in an attempt to comprehend the connections among business process re-engineering strategy and the service delivery of companies manufacturing food in Kenya.

BPR is one of the tools for business process revision aimed at bringing radical and breakthrough results for improved service provision and delivery. The radical and breakthrough results enables the organizations to reduce the customer contact time using improved service delivery infrastructure and provision frameworks ("Slack, et al., 2007; Heizer & Render, 2011").

Thus, BPR strategy implementation leads to improved service delivery especially with speed at lower costs. Further, the deployment of BPR strategy improves service quality especially on the "delivering speed" by "shortening cycle time in serving a customer", enhancing quality decision making, reducing delays in serving a customer and shortening the service delivery period since its request (Jones and Hendry 1994; Al-Mashara, et al., 2001; Slack, et al., 2007; Heizer & Render, 2011).

Most research on BPR has focused on how to optimize BPR strategy deployment, with very little attention being paid into an investigation to establish how it influences service delivery in existing organizational

structures that need to be adjusted to fit the new market and customer needs and expectations.

Proposition I: There is a significant link between BPR strategy and SD.

Table 2: Summary of Knowledge gaps on BPR Strategy and Service Delivery

Author(s)/ Year (s)	Study/Research Focus & Gaps	How Gaps Could be Addressed & Proposed Remedy
Al-Mashari et al., 2001	The study focused on BPR and especially on how to optimize BPR, with little attention on how it influences service delivery in existing organizational structures and market place	There is need to adjust and study how BPR strategy fits the new business processes and how it determines the service delivery in organizations
Heizer & Render, 2011; Laudon & Laudon, 2006)	Limited and narrow focus on Management information system and a digital firm	There is need to empirically test the link between BPR, MIS and service delivery
Jones. and Hendry, 1994; Slack, et al., 2007	Focused on service operations and not the relationship to service delivery and firm an performance	There is need to empirically test the link between BPR strategy and service delivery in a firm

It is apparent from the literature that a lot more needs to be done than has already been done with regard to cementing the conceptual framework for establishing the causal link between BPR Strategy and service delivery.

This study through the conceptual model develops analysis and synthesis of the current literature as an attempt at filling this gap.

Conceptual framework and Hypotheses Development

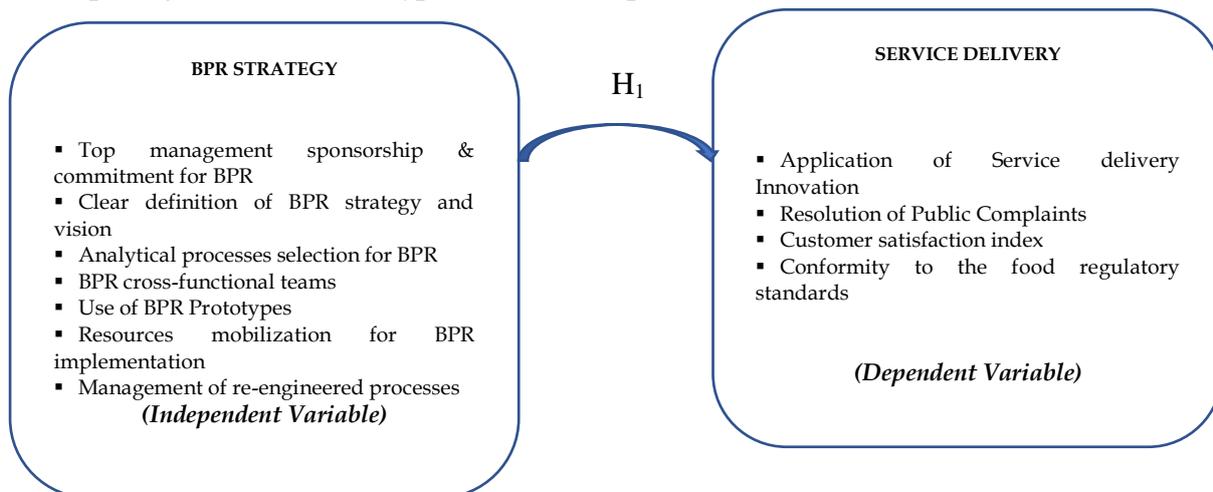


Figure 1 Conceptual Model

“Source: Researcher”, 2020”

H_{AI}= “There is a significant relationship between BPR strategy and service delivery of companies manufacturing food in Kenya”.

Research Methodology

The section highlighted the research methodology adopted that ensured the research objectives are addressed conclusively. This covered the research design, target population, sample size and sampling techniques, research instruments, data collection procedures, and data analysis.

This study therefore adopted the positivist approach by arguing that the study sets to empirically and objectively analyze the relationships existing among the variables in question and also the hypothesis were drawn from the theories. The positivist orientation will also enable hypotheses testing, acceptance or rejected based on the tested results thus leading to further research. This philosophy unveils the fact or causes of social phenomena thereby it is more on theory testing (positivism approach) as opposed to theory building

(epistemology).

The study adopted a descriptive cross sectional design. This design has been used successfully by Magutu, Mbeche, Njihia and Nyaoga, (2016) and Ongore & Kusa, (2013) to test hypothesis and draw conclusions. Information about the subjects that was gathered represented a snap shot of what was going on at that point in time. Emmel, (2014) posit that cross-sectional studies empowers the research analyst to establish if critical association and connection among variables exist and the quality of these relationships. The exploration configuration was guided by the reason for the examination, the sort of examination, the degree of analyst association, the phase of information in the field and the kind of investigation. In view of the breath of the study through the utilization of cross-sectional survey, the researcher was afforded the opportunity to capture data on BPR strategy and service delivery of companies manufacturing food in Kenya.

The study population-cum-unit of

analysis of the study” was seventy-five (75) companies manufacturing food in Kenya. These food-manufacturing companies were classified into companies offering: cereals manufacturing, food manufacturing consultancy, food flavours manufacturing, food hygiene, sugarcraft supplies, food preparation, food processing and food packaging. The target respondents and informants were the chief executive officer (CEOs) and with their permission, the production or operations managers depending on the structure of the particular company. The respondents were picked to represent all the stratas of 75 food manufacturing firms

Through a methodological triangulation method, both primary and secondary data, which reinforced each other, were gathered by utilizing a poll & survey questionnaire strategy with open-ended and closed questions well aligned with the study objectives and hypothesis based on the literature reviewed as well as theories anchoring the study (Emmel, 2014; Saunders et al, 2007). Sekaran, & Bougie, (2013) who applauded it because of its ability to maximize the benefit of standard and descriptive data that the interviews generate used this approach.

The questionnaire was divided into two sections. Whereby section I collected data

on BPR Strategy and Section III on Service Delivery.

To compute service delivery index, weighted scores (adopted from GoK, 2018) with an average of five years will be computed as follows:

Step 1: Determine the Actual Achievement for each service delivery *indicators*, $X_{\text{year 1-5}}$

Step 2: Find the *average Score* of the five-year Actual Achievement for each service delivery *indicators*, *Average Score* = $(X_{\text{year 1}} + X_{\text{year 2}} + X_{\text{year 3}} + X_{\text{year 4}} + X_{\text{year 5}})/5$

Step 3: Compute the Weighted Score by Multiplying the weight (assigned to the indicator as a percentage) by the *Average Score* to obtain the Weighted Score, i.e. **Weighted Score** = Indicator *Weight* as a percentage * *Average Score*

Step 4: Compute the *Composite Score* of each food manufacturing company by *summation of weighted scores* for indicators to obtain the *Service Delivery index*.

After the computation of service delivery index, the researcher used multiple regression analysis to test the research hypothesis. See table 2 on summary of objective, hypothesis and analytical model.

Table 2: Summary of Objectives, Hypotheses and Analytical Model

Objective	Hypothesis	Analytical model	Test Statistics	Analytical method	Interpretation
“To determine the effect of BPR strategy on service delivery of companies manufacturing food in Kenya;”	H_{A2} = “There is a relationship between BPR strategy and service delivery;”	$Y = \alpha + \beta_1 W_1 + \varepsilon$ $Y = SD$ $\alpha = \text{constant/intercept}$ $\beta_1 = \text{Coefficient parameters to be determined}$ $W = \text{Composite index of BPR strategy}$ $\varepsilon = \text{Error term}$	Mean, t-value, Pearson's correlation, R, R ² F-Ratio, P-values	Multiple Regression Analysis :	<p>“R² for goodness-of fit”; “F-test for overall significance”; “t-test for individual significance”; and “Marginal changes”</p> <p>R² depicts model fitness and explains the changes in dependent variable.</p> <p>P-value, F-ratio and t-statistic explains the significance of the model constructs</p>

Source: Author, 2020

Data Analysis, Findings And Discussions

Introduction

This section presents the fundamental study findings and interpretations based on field-data collected from the target study participants. The presented findings constitute a basis towards drawing the study conclusions and recommendations.

Out of the targeted 75 respondents; however, the researcher received response from 44 respondents forming 56.67% response rate, which was considered adequate for analysis. All subsectors of the food-manufacturing manufacturing companies in Kenya were all

proportionately represented in this study, avoiding any chances of bias or misrepresentation.

The study found out that majority (53%) of the food manufacturing companies have been in operation for more than fifty (50) years while there are new entrants which are between 1- 10 years old. This confirms that food processing in Kenya is more than 50 years old and majority of these firms are highly likely to re-engineer in order to deliver value to their customers.

Diagnostic Tests

Service delivery had the highest reliability coefficient of 0.974 ($\alpha = 0.974$) while business process re-engineering strategy

had $\alpha = 0.759$. The study adopted a cut-off point of 0.5 as indicators for reliable data. Normality was tested using the Shapiro-Wilk test and the results showed that all the variables were above 0.05 ($p > 0.05$) hence confirming data normality. Thus, p-values for the Sharipo-Wilk tests were 0.22 for BPR strategy and 0.31 for service delivery. The results revealed no problem with multicollinearity. The variables of the study indicated VIF values of between 1.53 and 9.73 which is less than the 10 (a figure recommended by the rule of thumb).

Hypothesis Testing

The research hypothesis was tested at 95% ($\alpha=0.05$) confidence level using multiple regression analysis, hence decision points to reject or fail to reject hypothesis were based on the p-values. Where $p<0.05$, the study failed to reject the hypotheses, and where $p>0.05$, the study rejected the hypotheses”.

The study sought to determine the effect of BPR strategy on service delivery of companies manufacturing food in Kenya.

The hypothesis was:

H_{AI} =There is a relationship between BPR strategy and service delivery of companies manufacturing food in Kenya.

The study tested the direct effects of BPR strategy dimensions on the firm service delivery. This was through performing a regression analysis to determine and test the hypothesis for the existence of a link between BPR strategy on firm service delivery.

Composite service delivery index on firm service delivery was derived from the four dimensions that were used to measure of firm service delivery: application of service delivery innovation, resolution of public complaints, customer satisfaction index and conformity to the food regulatory standards. Then the results from testing the second hypothesis on whether there is any existence of a link between BPR strategy and firm service delivery was done through multiple regression analysis giving the results as in the tables below.

Table 3: Variables Entered/Removed on the Relationship between BPR strategy and firm service delivery

Model	Variables Entered	Variables Removed	Method
1	Resources Mobilization for BPR, Sponsorship and Commitment, BPR cross functional Teams, Analytical Processes Selection, BPR Prototypes, Management of Re-engineered Processes, Clear BPR Definition and Vision ^b	.	Enter

a. Dependent Variable: Service Delivery Index

b. All requested variables entered.

Source: Research Data (2020)

From the findings on table 3, all the seven indicators of BPR strategy were included in the multiple regression analysis testing the relationship between BPR strategy and

firm service delivery. Further the model goodness of fit using the adjusted R² (coefficient of determinations) done in the next table.

Table 4: Model Goodness of Fit of on the Relationship between BPR strategy and firm Service Delivery

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.812 ^a	.659	.592	6.53072

a. Predictors: (Constant), Resources Mobilization for BPR, Sponsorship and Commitment, BPR cross-functional Teams, Analytical Processes Selection, BPR Prototypes, Management of Re-engineered Processes, Clear BPR Definition and Vision

Source: Research Data (2020)

As presented in Table 4, 59.2% (Adjusted R² = 0.592) of variations in the service delivery is explained by variations in the BPR strategy namely Resources Mobilization for BPR, Sponsorship and Commitment, BPR Cross functional Teams, Analytical Processes Selection, BPR Prototypes, Management of Re-

engineered Processes, Clear BPR Definition and Vision.

Table 5 presents that the model is statistically significant in explaining the relationship between the BPR strategy and firm service delivery, F (7, 36) =9.925, P>0.000.

Table 5: Model Overall Significance of BPR strategy and firm service delivery

ANOVA ^a					
Regression Model	SS (Sum of Squares)	df	Mean Square	F	Sig./P-Value
Regression	2963.231	7	423.319	9.925	.000 ^b
Residual	1535.412	36	42.650		
Total	4498.643	43			

a. Dependent Variable: Service Delivery Index

b. Predictors: (Constant), Resources Mobilization for BPR, Sponsorship and Commitment, BPR Cross functional Teams, Analytical Processes Selection, BPR Prototypes, Management of Re-engineered Processes, Clear BPR Definition and Vision.

Source: Research Data (2020)

As presented in Table 6, using standardized coefficients: BPR prototypes (B = 0.645, t= 2.681, P>0.001), management of re-engineered processes (B = 0.589, t= 2.412, P>0.001) and sponsorship and commitment (B = 0.506, t= 3.419, P>0.002) have a very strong positive effect on firm service. Clear BPR definition and vision (B = 0.011,

t=0.026, P>0.001) has a weak positive effect on firm service delivery; BPR cross-functional teams (B = -0.126, t= -0.575, P>0.006), resources mobilization for BPR (B = -0.032, t= -0.156, P>0.002) and analytical processes selection (B = -0.339, t= -0.787, P>0.003) have a very weak negative effect on firm service delivery.

Table 6: Regression Coefficients of BPR strategy and firm Service Delivery Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig./P-Value
	B	Std. Error	Beta		
(Constant)	-42.554	14.170		-3.003	.005
BPR Prototypes	6.397	2.386	.645	2.681	.001
Management of Re-engineered Processes	13.933	5.777	.589	2.412	.001
Sponsorship and Commitment	7.399	2.164	.506	3.419	.002
Clear BPR Definition and Vision	.250	9.452	.011	.026	.001
Resources Mobilization for BPR	-.300	1.924	-.032	-.156	.002
BPR cross functional Teams	-1.980	3.442	-.126	-.575	.006
Analytical Processes Selection	-7.853	9.983	-.339	-.787	.003

a. Dependent Variable: Service Delivery Index

Source: Research Data (2020)

The regression equation derived was thus as follows:

$$Z = 0.645 BPRP + 0.589 MREP + 0.506 BPRSC + 0.011 BPRDV - 0.126 BPRCFT - 0.032 RMFBPR - 0.032 BPRAPS$$

Where: Z = Firm Service Delivery Index

BPRP = BPR Prototypes

MREP = Management of Re-engineered Processes

BPRSC = Sponsorship and Commitment

BPRDV = Clear BPR Definition and Vision

BPRCFT= BPR Cross functional Teams

RMFBPR = Resources Mobilization for BPR

BPRAPS = Analytical Processes Selection

The regression model suggests that a unit decision to engage in the use of BPR Prototypes increases firm service by 0.645 units, a unit enhancement in the management of re-engineered processes increases firm service delivery by 0.589 units, a unit increase in sponsorship and commitment to BPR increases firm service delivery by 0.506 units, a unit step to provide clear BPR definition and vision increases firm service delivery by 0.011 units, a unit failure to use BPR cross functional teams decreases firm service delivery by 0.126 units, a unit decrease in resources mobilization for BPR decreases firm service delivery by 0.883032 units and a unit failure to use analytical processes selection decreases firm service delivery by 0.339 units. The findings therefore confirms alternate hypothesis two (2) that there is a significant relationship between BPR strategy and service delivery of companies manufacturing food in Kenya. H_{A1} is therefore supported.

Discussion of the Research Results and Findings

This section discusses the results of this study in line with the research objective and the hypothesis formulated based on existing literature, both conceptual and empirical, and led to the development of conceptual model, which outlined the relationships between the variables. The results from the test of hypotheses are compared on how they fit into the existing body of knowledge and

previous studies. Further, this section discusses the implications of the current research findings' provision of new insights and support of existing theory on which the study was founded.

The objective of the study was to to determine the influence of BPR strategy and SD of companies manufacturing food in Kenya. This objective had a corresponding hypothesis, H_{A2} , which stated that there is a significant relationship between BPR strategy and service delivery of companies manufacturing food in Kenya. In testing the second hypothesis on the relationship between BPR strategy and service delivery of companies manufacturing food in Kenya, the results showed that there is a significant relationship between BPR strategy and service delivery of companies manufacturing food in Kenya ($R^2 = 59.2\%$). This findings fits well into the existing body of knowledge by holding that BPR strategy influence the firm's service delivery as evidenced by works of Al-Mashara, et al., 2001; Slack, et al., (2007); Heizer & Render, (2011) which illustrated that improved business processes facilitates organizations to maximize the value addition which eventually leads to improved service delivery.

These results are consistent with earlier conceptual and empirical evidence by Ganesh, (2000); Al-Mashara, et al., 2001 and Brynjolfsson & Hitt, (2000) that BPR strategy implementation should lead to improved service dimensions of quality, cost and speed. Thus this is consistent with the conclusions of Slack, et al., (2007) and Heizer & Render, (2011) that postulates that

BPR improves service delivering speed by shortening cycle time in serving a customer, minimizing delays in serving a customer, speed up communication, fastening decision making and shortening the period taken to deliver a service since its request.

The finding have further provided new insights on how to measure service delivery by contextually considering other measures other than customer satisfaction and service quality for food manufacturing companies. The new insight extended Nengwekhulu, (2009) and Lovelock and Wright, (2002) perspectives of customer satisfaction by bring in four new dimensions of: application of service delivery innovation; resolution of public complaints; customer satisfaction index; conformity to the food regulatory standards. The complaints, innovations and conformity to the food regulatory standards all determine the perceived service quality, which will eventually affect the product package and innovations from the manufacturing firms, which are highly regulated where the complaints are based on failure to meet those standards.

Conceptually, the empirical relationship between BPR strategy and service is significant where BPR strategy constructs independently and positively influences improvements in service delivery with three significant predictors: BPR prototypes, management of re-engineered processes, and sponsorship and commitment. This study confirms and supports the use of resource based view theory based MacLean, Meyer and Estable., (2004) argument that the resources that a firm can use to pursue improved service delivery competitive

advantage are classified as financials (BPR prototypes), organizational (top management), human (management), skill and experience (cross-functional teams), cultural values & resources innovation, and reputation. Hence the study confirms and supports the observations of Teece, Pisano & Shuen, (1997); Bartai, (2014); Paulous, (2004); Dedrick et al., (2003) that for the firms to gain and sustain superior service delivery, they must strive to continually rearrange their internal resources/capabilities that is dynamic capabilities due to the ever-changing customer perceptions and needs based on the operating environment.

Summary, Conclusions And Recommendations

This chapter presents the study's summary of findings on thematic areas, conclusions, recommendations, limitations and suggestions for further studies. The summary of findings is based on each and every indicator used in the study while the conclusions and recommendations are based on the generalized views under each objective area.

Summary of Findings

Primarily, the discussions laid focus on the results and whether they were consistent or contradicted other empirical studies. It also covered suggestions on areas of keen interest. On hypotheses testing, it was established that 59.2% of variations in the SD is explained by variations in the BPR strategy namely resources mobilization for BPR, sponsorship and commitment, BPR cross functional teams, analytical processes selection, BPR prototypes, management of re-engineered processes, clear BPR

definition and vision. Thus, there is a significant relationship between BPR strategy and service delivery of companies manufacturing food in Kenya. H_{A1} is

therefore supported. The table below provides the summary of results, summary of hypotheses testing and decision.

Table 7: Summary of the Results of the Hypothesis

Objective	Hypothesis	R	R ²	Adj. R ²	F	Sig./P-Value	Decision
To determine the effect of BPR strategy on service delivery of companies manufacturing food in Kenya.	H_{A1} : There is a relationship between BPR strategy and service delivery.	.812 ^a	.659	.592	9.925	.000 ^b	Accept

Source: Researcher (2020)

Conclusion

In conclusion, the study confirmed that there is a positive and statistically significant relationship between BPR strategy and service delivery of companies manufacturing food in Kenya, where 59.2% of variations in the service delivery is explained by variations in the BPR strategy namely resources mobilization for BPR, sponsorship and commitment, BPR cross functional teams, analytical processes selection, BPR prototypes, management of re-engineered processes, clear BPR definition and vision. The results therefore support the anchoring theory of dynamic capabilities theory.

Contributions of the Research Findings

This study has contributed in different areas including implications to theory, policy, management practice and methodological contributions as discussed in the subsequent paragraphs.

First, this study has advanced frontiers of knowledge from the study findings; this study confirms that today’s competitive environment compels organizations to re-engineer their business processes to effect perfect service delivering for customer satisfaction which eventually leads to improved overall FP (Hussein, Bazzi, Dayekh & Hassan, 2013; Jurisch, Ikas, Wolfgang, Wolf & Kurcmar, 2012). The research findings have addressed the key gaps in this study.

Secondly, this study has contributed to theory: the empirical relationship between BPR strategy and service is significant where BPR strategy constructs independently and positively influences improvements in service delivery with four significant predictors: resources mobilization for BPR; BPR cross-functional teams; sponsorship and commitment of top management; and the management of re-engineered processes. This study confirms

and supports the use of resource based view theory based MacLean, Meyer and Estable., (2004) argument that the resources that a firm can use to pursue improved service delivery competitive advantage are classified as financials (resource mobilization), organizational (top management), human (management), skill and experience (cross-functional teams), cultural values & resources innovation, and reputation.

Thirdly on the study's policy contributions: the study will guide policy makers to develop BPR strategies that will lead to improved service with the understanding that improved business processes facilitates organizations to maximize the value addition which eventually leads to improved service delivery.

Lastly on the methodological contributions: key methodological contribution is the use of a quantitative composite index in computing the SD index, the use an integrated empirical model to test the relation between BPR strategies and service delivery; the study used a number of indicators to measure each construct, which improved the construct validity. Based on this, the ground has been set for replication whereby questionnaires were used as a useful tool for data collection, which allowed the respondents privacy and chance to express themselves freely without fear and shyness. This is therefore a methodological contribution compared to the commonly used interviews and lab experiments.

Limitations of the study

The study had a number of limitations. A cross-sectional survey approach method was used for the study and data was collected was collected at only one point in time which may bias the findings and given that, the study was done within companies manufacturing food in Kenya, which has certain peculiarities. This study drew its sample from companies manufacturing food in Kenya, and further research should include a broader perspective of all manufacturing firms or large scale manufacturing firms. The same can be applied to the service firms and industry. The information that was sought from the companies manufacturing food in Kenya were voluntary, but out the fifty questionnaires that were returned, there were some outliers hence only forty four (44) questionnaires were used in the correlation and regression analysis of this study. A single respondent was used in data collection, which may bias or determine the nature of responses.

Suggestions for Further Research

In an effort to test external validity of these study findings, future research can use the survey research design as used in this study to check if the findings of specific case studies are consistent with one another. McGrath (1982) suggests that one way to achieve this is by use of a qualitative research methodology. There are three primary components of external validity include the statistical generalizability, conceptual replicability and situational replicability. A single study cannot therefore be used to ensure external validity; hence the

need for several other related empirical studies (Mentzer and Flint, 1997; Kirchoff, 2011). For this to be achieved, future research ought to consider the entire manufacturing sector in Kenya or service firms in order to relate the above industries. Another investigation should be done in a developed nation for the results contrasted with a developing country.

References

- Al-Mashari, et al . (2001), "Process reengineering: a survey of international experience", *Business Process Management Journal*, Vol. 7 No. 5, pp. 437-53, in E. Loukis K. Pazalos St. Georgiou, (2009), "An empirical investigation of the moderating effects of BPR and TQM on ICT business value", *Journal of Enterprise Information Management*, Vol. 22 Iss 5 pp. 564 – 586
- Attong, M. & Metz, T. 2012. *Change or Die: Business Process Improvement Manual*. Hoboken: CRC Press.
- Barney, J.B. (1991), "Firm resources and sustained competitive advantage", *Journal of Business*, 64(4): 656-665.
- Brynjolfsson, E. and L. Hitt (2000), "Beyond Computation: Information Technology, Organization Transformation and Business Performance," *Journal of Economic Perspectives*, 14: 23-48.
- Bryson, J., Crosby, B. C. & Bloomberg, L. 2014. *Public Value Governance: Moving Beyond Traditional Public Administration and the New Public Management*. *Public Administration Review*, 74 (4): 445-456.
- Chang, J. F. 2012. *Basic Principles of Business Process Management*. *Business Process Management Systems*, (6): 47-55.
- Chris Richards, (2018). *Business Productivity Review - EEF submission: CPR and CE Marking*, Department for Business, Energy and Industrial Strategy
- Emmel, N. 2014. *Sampling and Choosing Cases in Qualitative Research: A Realist Approach*. London: Sage Publication.
- Fahy, J. (2000). The resource-based view of the firm: some stumbling-blocks on the road to understanding sustainable competitive advantage. *Journal of European Industrial Training*, 24/2/3/4
- Ganesh D. Bhatt, (2000), "Exploring the relationship between information technology, infrastructure and business process re-engineering", *Business Process Management Journal*, Vol. 6 Iss 2 pp. 139 – 163
- Goll, E.O. & Cordovano, M.F. "Construction Time Again," *CIO*, October 15, 1993, pp. 32-36.
- Heizer, J. And Render, B., 2011. *Operations Management (9th ed)*. Upper Saddle River: Prentice Hall.
- Hunt, Shelby D. (2004), "On the Service-Centered Dominant Logic of Marketing," *Journal of Marketing*, 68 (1), 21-22. In Ja-Shen C., Hung T.T., & Astrid Y. H. (2009) "Service Delivery Innovation: Antecedents and Impact on Firm Performance" *Journal of Service Research*; 12; 36
- Hussein, B., Bazzi, H., Dayekh, A. & Hassan, W. 2013. Critical analysis of existing business process re-engineering models: towards the development of a comprehensive integrated model. *Journal of Project, Program and Portfolio Management*, 4(1): 30-40.
- Ja-Shen C., Hung T.T., & Astrid Y. H. (2009) "Service Delivery Innovation: Antecedents and Impact on Firm Performance" *Journal of Service Research*; 12; 36 Center for Excellence in Service, University of Maryland
- Jones, A. and Hendry, C., (1994): "The learning organisation: adult learning and organisational transformation", *British Journal of Management*, Vol. 5, 1994, pp. 153-62.
- Jurisch, M. C., Ikas, C., Wolfgang, P., Wolf, P. & Kurcmar, H. 2012. *A review of success*

- factors and challenges of public sector BPR implementations. Paper presented at 45th Hawaii International Conference on System Sciences. 4-7 January, Maui, Hawaii.
- Kuwaiti M.E & John M. K, (2000),"The role of performance measurement in business process reengineering", *International Journal of Operations & Production Management*, Vol. 20 Iss 12 pp. 1411 – 1426
- Laudon, k. C. & Laudon, j. P. (2006). *Management information system: Managing the digital firm*. 10 ed). Prentice Hall, Upper Saddle River. New Jersey.
- Lovelock and Wright (2011): *Services Marketing: People, Technology, Strategy*, 7th edition. *Journal of Services Marketing* 18(5), Edition: 7. Prentice Hall. ISBN: 978-0-13-610721-7
- MacLean L. M, Meyer M. and Estable A., (2004): *Improving Accuracy of Transcripts in Qualitative Research*. *Qualitative Health Research*. 2004;14(1):113–123.
- Magutu, p.. & Kaptoge, G. K. (2010). *Business process reengineering for competitive advantage*:
- Magutu, P.O., Mbeche, I.M., Njihia, J.M. and Nyaoga, R.B. (2016): 'The Relationship between Supply Chain Strategies and Supply Chain Performance among Large-Scale Manufacturing Firms: The Moderating Effect of Supply Chain Technology', *EuroMed J. Management*, Vol. 1, No. 2, pp.123–148.
- Martonova, I. 2013. The integration of TQM and BPR. *Quality Innovation and Prosperity*, XVII(2): 59-76.
- McIntosh, R. 2003. BPR: alive and well in the public sector. *International Journal of Operations and Production Management*, 23(3/4): 327-344.
- Mmereki, R.N. & Kgomotso, G.M. 2013. Challenges in Implementing Business Process Re-engineering in Botswana Public Hospitals. *Journal on Customer Relations*, 1(1): 31-37.
- Nengwekhulu, R. 2009. Public service delivery challenges facing the South African Public Service. *Journal of Public Administration* , 44(2): 341-363.
- Oberoi, R. 2016. Applying Business Process Re-engineering to the Public Sectors as New Public Management Strategy: Understanding Views and Limits. *Journal of Governance and Politics*, 4(2): 291 – 304.
- Park, H.M. (2008). *Univariate Analysis and Normality Test Using SAS, Stata, and SPSS*. Technical working Paper. The University Information Technology Services (UITS) Center for Statistical and
- Ringim, K. J., Razalli, M. R., & Hasnan, N. (2011). Effect of Business Process Reengineering Factors on Organizational Performance of Nigerian banks: Information Technology Capability as the Moderating Factor. *International Journal of Business and Social Science*, 2(13), -
- Santos-Vijande, L., Sanzo-Pérez, M.J., Gutiérrez, J.A.T. and Rodríguez, N.G. (2012) 'Marketing capabilities development in small and medium enterprises: implications for performance', *Journal of Centrum Cathedra*, Vol. 5, No. 1, pp.24–42.
- Sekaran, U. & Bougie, R. 2013. *Research Methods for Business: A Skill Building Approach*. 6th edition. West Sussex: John Wiley & Sons.
- Sharma M. (2006). *Business Process Reengineering: A Tool to further Bank Strategic Goals*. *Journal of Management Information Systems* 12: 1.
- Slack, N.; Chambers, S. & Johnston, R. (2007). *Operation Management*. 5 ed. Prentice Hall. UK.
- Verganti, R., and Buganza T., (2005), "Design Inertia: Designing for Life-Cycle Flexibility in Internet-Based Services," *Journal of Product Innovation Management*, 22 (3), 223-237.

Wong, W.P., Ahmad, N.H., Nasurdin, A. M. & Mohammad, M.N. 2013. The Impact of External Environmental on Business Process Management and Organizational Performance. *Serv Bus*, 17 September: 559-586. Stellenbosch University <https://scholar.sun.ac.za>

World Bank, (2017)., *Improving Nutrition through Multispectral Approaches*(Washington, DC: World Bank. 2017. *Doing Business*. [Online]. Available:

Yubao C., Luca C., Yinghua L., Patrick W., Xuehe Z.,2017: A Qualitative Exploratory Investigation on the Purchase Intention of Consumers Affected by Long-term Negative Referral: A Case from the Chinese Milk Sector. *Economia agro-alimentare/Food Economy*:<https://www.researchgate.net/publication/313820274>