

Enad, Osama Mohamed Ahmed; Gerinda, Salah Murtada Abdelrahman

Article

Enhancing financial performance of the banks: The role of customer response and operations management

Journal of Innovation and Entrepreneurship

Provided in Cooperation with:

Springer Nature

Suggested Citation: Enad, Osama Mohamed Ahmed; Gerinda, Salah Murtada Abdelrahman (2022) : Enhancing financial performance of the banks: The role of customer response and operations management, Journal of Innovation and Entrepreneurship, ISSN 2192-5372, Springer, Heidelberg, Vol. 11, Iss. 1, pp. 1-16,
<https://doi.org/10.1186/s13731-022-00211-w>

This Version is available at:

<https://hdl.handle.net/10419/259685>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

RESEARCH

Open Access



Enhancing financial performance of the banks: the role of customer response and operations management

Osama Mohamed Ahmed Enad*  and Salah Murtada Abdelrahman Gerinda

*Correspondence:
osamaenad3@gmail.com
Department of Business
Administration, College
of Sciences and Arts
in Tabarjal, Jouf University,
Tabarjal, Saudi Arabia

Abstract

The current study investigates the relations between the following variables customer response, operations management, and financial performance. The questionnaires were distributed among the board of upper management, middle management, and first-line management in Al-Tadamon Islamic bank in Sudan. Then, the feedbacks were analyzed using SPSS, and the response rate was 77%. The outcomes displayed that, the customer response effect positively operations management and financial performance. Similarly, operations management influences financial performance, but operations management does not mediate the relations between customer response and financial performance.

Keywords: Customer response, Operations management, Financial performance

Introduction

Customer response is probable to be the main factor affecting the performance of a business, mainly in the stage of “sense and respond” (Jayachandran, 2004).

In the current article, the main purpose is to enhance financial performance through customer response and operations management. The study focuses on the impact of customer response on operations management, besides the impact of customer response on financial performance, and the influence of operations management on financial performance. (Jayachandran et al., 2004) argues that the customer response refers to the point to which a bank’s response to customer needs is speedy. The logic of capability-building is used for understanding that banks can improve the higher order competence of customer response speed to capture market changes quickly, reliability, and improving consumer service. Customer response improves visibility of downstream demand and upstream industrial schedule. Alternatively, customer response speed can to enhance bank’s performance as the bank can enjoy the benefit of rapid response over competitors thanks to additional coordinated and associated responses from banks in its supply chain. In addition, customer integration has an important part in strengthening customer responsiveness: i.e., through customer integration, banks added more customer

response speed to respond and enhanced their performance in quickly changing business environment (Chiang et al., 2015).

Generating adequate data on effective responses of customers to influence them in dealing with a bank's branches seems to be crucial for the reason that customer subjectivity of branches influence their customer decisions (Vazifehdust & Khalili, 2017). On the other hand, the financial performance of the bank is defined as how well the bank achieves its financial objectives. The financial goals have transmission-accounting variables to gauge the performance of business such, as return on an asset. The return on asset is reasoned as the central metric for evaluating profitability, adding to income on equity, and operating profit margin (Hilal, 2017). The previous studies discussed in the literature review have reflected that financial performance is a critical factor for the growth and stability in the banks, and then the banks looking for increasing their financial performance through several factors the current study assumes financial performance influenced by customer response and operations management.

Literature review

Financial performance

Performance term has been derived from term 'performed' which means 'to do', 'to carry out' or 'to render'. Numerous economists consider establishments and organizations, such as an engine in determining economic, social and, political progress. Continuous performance of the organizations is useful in the development and growth of the state. Organizational performance is one of the most significant factors in the management research and debatable the important indicator of organizational performance (Melwani, 2019). The financial performance of influence subdivision companies the central objective was to ascertain if any changes happen in financial performance among the different energy manufacturers, he was found that the firms using fossil fuel to produce electricity were performing better (Rai & Prakash, 2019). The performance of banks has been of countless interest in academic research. According to (Nyathira 2012) bank's performance is an obviously a multidimensional concept including four components: financial and market performance, human resource performance, organizational efficiency, and customer concentrated performance.

To assess the structural performance, one has to study the countryside of the banks and the causes for which its performance is being assessed to properly select the applied measurement or component when determining the performance of those banks (Mugo et al. 2019). Using economic ratios, investors can determine the performance of a bank. This is reliable with the statement that the comparison in the form of ratios products statistics that are more objective, for the reason that the performance dimensions can be compared with other banks' or with the prior period. The banks' performance can be seen through a wide range of variables or indicators. Variable or indicator as the source of valuation is the economic reports of the bank concerned. If the performance of the banks growth its value will be higher. According to the Indonesia Organization of Accountants, the banks' performance can be measured by evaluating financial statements. Financial position and performance information in the past often used as a basis for forecasting the financial position and forthcoming performance and other matters that directly attracted the attention of users such as the payment of dividends, wages,

the price movement of safeties and the banks' capability to meet its promises as they fall due. Performance is a significant purpose to be accomplished by any banks' everywhere, for the reason that the performance is a reflection of the banks capability to manage and allocate resources (Sintha, 2017).

Developing customer value is important to increase financial performance; also Sales-people have an important part in creating customer value through their encounters and strategic relational interactions with clientele (Schwepker & Schultz, 2015). In any kind of commercial bank, profitability is a significant factor. Banking firms similarly measure their commercial events undertaken to be familiar with their profitability performance. CAMEL (Capital Adequacy, Asset Quality, Management, Earning and Liquidity) the analysis is used by the banks to analyses economic performance. Banks adopt CAMEL model analysis to evaluate several types of risks and managing them efficiently. Financial ratios have been long practiced by academics to assess the bank's financial performance. Banks use CAMELS ratings to investigate their financial health and performance (Ali & Dhiman, 2019). In today's marketing era, organizations that successfully achieve their customers enjoy advanced retention stages and better profitability due to improved clients' loyalty. This is why it is essential to save clients satisfied. Consumer satisfaction is supposed to be tightly linked with understanding customer behavior. Particularly, customer satisfaction is an important component in the formation of customer needs for future buy. In addition, satisfied customers will probably recommend and talk to others about their good capabilities.

The presence of returns in a bank is predictable to get the care of savers and creditors in assessing a management performance of a bank and can forecast bank incomes in the future. Earning is also an element in the financial declarations which are very worried, for the reason that the bank incomes are probable to be a reference for the banks in offering the performance in a bank as a whole in accomplishing business objectives. One way that management does when preparing financial statements that impact the level of return is earnings management which expectation can raise the value of the bank itself (Prihastomo & Khafid, 2018).

Financial influence is the amount to which a company entity uses debt capital to finance investment chances offered to the corporate (Gatsi et al. 2013) opine that using debt capital efficiently to create revenues on investment indicates the effectiveness of business governance. The application of debt capital by an entity will raise the earnings on equity capital in long term that the income made from its usage is greater than the cost financing the project (Afolabi et al. 2019).

The capability to demonstrate the influence of marketing activities on bank financial performance is essential for assessing, justifying, and enhancing the spending of an organization's marketing resources. This presents itself as a formidable mission when one considers both the variety and possible effect of marketing activity. Marketing administrators face growing pressure to demonstrate the influence of their activities on bank financial performance (Dotson & Allenby, 2010). According to (Trivedi, 2015) banks must select amongst the revenue streams that enhance stability. The study outcomes find a positive effect of diversification of both non-interest and total income on profitability but a negative influence on stability. In the context of the European banking business, researchers reflect the positive relationship between risk and product

diversification which is strong in small banks. With the modern deregulation in the Indian economy, trade banks have arrived into fee-based events alike investment banking, commercial banking, assurance agency, security brokerage, and other nontraditional activities (Malhotra & Sarabhai, 2019).

Banks can increase high revenues in the market through valuable knowledge that improves the ratio of benefit to customers (Halim et al. 2016) beside the banks those can decrease at low cost these can improve their financial performance (Muhammad & Cavus, 2017) Financial success generally dependent on the effectiveness of salesperson (Wong & Tan, 2018) Excellent performance not only to the success of bank but also to the good of society by being good business citizens (Yahya & Ha, 2014) The main factor may measure performance are profitability and market share various scholars have use measure performance with Profits, growth, and sales (Batra & Dhir, 2019). Moreover, banks performance have concentrated on three factors, bank strategy, bank structure or internal environment and, external environment (Pedaste et al. 2015) other scholars measure financial performance by rising sales, profit, and financial security (Han et al. 2017). Performance measures deferent from stockholder perspective include employees, customers, shareholders, suppliers and, the community Ahmad (Abidin et al. 2017). Also, we may use Productivity; it's the ratio between efficiency and is measured by banks for the same decision-making unit in two different periods (Akbarian, 2020). Effective performance measurement should be concentrated on financial and non-financial performance (Ismail et al. 2010).

Customer response

A Study from marketing literature has classified five key customer response to stock-out including (1) Buy an item at another branch (store switch); (2) Delay buying (purchase future at the same place); (3) Substitute-same brand (for a dissimilar size or type); (4) Substitute different brand (brand switch); (5) Do not buy the item (lost sale). Other than identifying the consumer behaviors following a stock-out (Zhang, 2016). In addition, it's related to Customer sensing, Customer sensing is the continuance of market sensing. (Day, 1994) proposes that the market sensing capability is an establishment's aptitude to be aware of changes in its marketplace and to create perfect responses in their marketing events (Aqmala & Ardyan, 2019).

To formulate an effective strategy, Customer Satisfaction, customer response, and Innovation Customer satisfaction has been recognized as a significant part of business strategy and a vital factor of bank long-term profitability and market value in the marketing researches. Satisfied customers and customer responses are an asset of the bank and can bring more profit, more sales, and increase market share to the bank. customer responses lead to customer satisfaction, customer satisfaction defined as a general evaluation of the offer's performance comparing to the customer's expectations (Liu, 2019) Numerous methods such as implementing lean practices have been found effective in satisfying the customer request and at a similar period preserving or even improving the productivity of the commercial trade. The efficiency of the supply chain must be measured by its responsiveness to customers, (Anand & Grover, 2015) which displays his effort that one has to judge and balance upon being client-responsive and being volume concentrated. He concluded that a bank might find an effective customer responsiveness

being more critical in increasing the market (such as clean technology markets) condition compared to a mature market. This is in track with the contingency method which proposes a fit between customer responsiveness and the market context (Jermisittiparsert et al. 2019).

Good relations with the customers, providing suitable services will make customers select Al-Tadamon Bank on the other Banks (Vahdati & Hadi, 2016). Efficient and effective relations with customers will benefit all parties in the long term. (Widana & Wiryono, 2015) ender influences have been largely discussed in consumer responses to socially relevant marketing activities in general (Moosmayer, & Fuljahn, 2010) In addition to generating direct profits, extended warranties are used as a means to retain customers (Albaum & Wiley, 2010) Price competition has become the main means for enterprises to gain a market share, and the competition among enterprises is quite fierce (He & Deng, 2020). Understanding what customers value and seeking to deliver that is one cornerstone of effective marketing programs Stephanie (Wen et al. 2016), Customers regard esthetical manners as a vital consideration during their purchase decision to enhance trust (Abd Rahim et al., 2011). Besides, brand personality may be linked to increasing levels of trust and loyalty (Kim & Zhao, 2014) Operation management department plays a significant role in the service sector (Demir, 2019).

Measurements

Financial performance

An appraisal of the literature shows that there is little agreement among researchers on how to measure financial performance. The current study measures financial performance through different indicators include Share of the market, Volume of the sale, Profitability (Majid Elahi, Khaledi & Karimi, profitability, market share, sales operating costs, cash flow, and profit (Ross, 2002).

Customer response

Researchers depend on different items for measuring customer response (Roschk & Hosseinpour, 2020) measured customer responses by five dimensions which are Mood (Activation, Valence, and Control); Evaluations (Product evaluations, Environmental quality, and Shopping satisfaction); Memories (Recall, and Time elusiveness); Intentions (Purchase, and Intention to recommend); Behaviors (Expenditures, and Lingerings).

Operations management

Operations Management is a central part of any bank. It's very important for success in banks. It is a part of management that is a focus on the production of services at the bank (Manikas et al. 2019). Operations management practices are meant to develop the effectiveness of production (Battistoni et al., 2013). (Dao et al., 2020) measured operations management by three dimensions detailed in as following: just in time practices (daily schedule adherence–equipment layout–(JIT) delivery by the supplier–Kanban–setup time reduction); quality management practices (cleanliness and organization–process control–supplier quality management–customer focus–maintenance); infrastructure practices (committed leadership–multi-functional training–employee involvement–information and feedback).

Methodology

The research conceptual framework

Few studies had further examined the relationship between customer response and financial performance. This study revealed the effect of the customer response and operation management as determinants on the financial performance.

The integrative model presented in Fig. 1 consists of the following:

Independent variable was customer response (Roschk & Hosseinpour, 2020) measured customer responses by five dimensions which were Mood, Evaluations, Memories, Intentions, Behaviors. Mediating variable is about operation management which included items that were very important in the current study.

Dependent variable was the financial performance measured by many dimensions, namely, Share of the market, Profitability (Majid, Khaledi & Karimi, sales operating costs, cash flow, and profit (Ross, 2002).

Hypothesis

In the current study, four main hypotheses were developed to examine the relationships between Customer Responses and Financial Performance; customer responses and operations management; operations management and financial performance; and mediates of operations management between customer responses and financial performance.

- H1) Customer response affects financial performance positively
- H2) Customer response affects operations management positively
- H3) Operations management affects financial performance positively
- H4) Operations management mediates the relationship between customer response and financial performance

Research questions:

- 1) What is the relationship between customer response and financial performance?
- 2) What is the connection between customer response and operations management?
- 3) What is the link between operations management and financial performance?
- 4) Does the operations management mediate the relationship between customer response and financial performance?



Fig. 1 Research conceptual framework. Source: prepared by researcher, (2020)

Research design

This section is designed to discuss in detail the data collection procedure, sampling technique, questionnaire design and development, administration of questionnaire as well as the data analysis techniques.

Sampling procedure the target population for the current study is the Sudanese Islamic banks. The number of all Sudanese banks was 38 banks according to the central bank of Sudan.

Development of questionnaire according to there are five steps in developing a questionnaire. These steps include: planning what to measure, developing the questionnaire, question—wording, questionnaire layout, pre-testing, correcting problems, and their implementations. These steps are:

Planning what to measure the questions of the study were divided as follows: (1) questions include demographic information and bank information this section includes respondent's information about gender, age, education, experience years. Besides information about the banks, such as type of activities, job title, number of employees (2) items about the customer response. (3) Items about operational management include significant items of the current study. (4) Items about financial performance include important aspects for the current study. These sections of the study are developed based on past literature.

Formatting of the questionnaire most of the respondents were familiar with Arabic language, since it is a common language in Sudan. Therefore, the questionnaire was translated from English language to Arabic language.

Question—wording this step examines whether the phrases are obviously clear to all respondents. Thus it is necessary to use simple terminologies to avoid unclear meaning. It is important to avoid double-barreled and confusing phrases. Besides the phrasing and length of phrases, it is also designed to solicit ideas and answers from target respondents. Simple statements were framed so that the questionnaire could be easily understood. In the process, the questionnaire was reviewed by Academic staff in different universities in Sudan.

Sequence and layout decisions the questionnaire was started with easy phrases flow from general to specific phrases. The difficult phrases were avoided at the beginning. Besides, the attractive layout of the questionnaire was considered for clarity of the aspects presented.

Pre-testing and correcting problems Pilot test was ensured that the phrases were meet the researcher's prospects with no ambiguities, and clearing the double-barreled phrases. The aim of the pilot test is to remove confusion and checking the reliability of the variables.

Administrative of the field works

According to a report of the central bank of Sudan 2019 (<https://cbos.gov.sd/ar>) the banking system of Sudan consists of 38 banks, namely; Animals Resources Bank, Industrial development Bank, Omdurman National Bank, Financial Investment Bank, Al-Tadamon Islamic Bank, Byblos Bank Africa, National Workers Bank, Faisal Islamic Bank of Sudan, Agricultural Bank of Sudan, Sahel and Sahara Bank for Investment and Trade,

Table 1 Questionnaires rate of return

All questionnaires were	73
Completed questionnaires	56
Questionnaires not returned	17
Response rate	77%
Source: prepared by researcher, (2020)	

Table 2 Cronbach's alpha

Variables	Number of items	Cronbach's alpha
Operations management	5	0.845
Customer response	3	0.676
Financial performance	6	0.923
Factor analysis		

Sudanese Egyptian Bank, Country bank, Ivory Bank, Country bank, Commercial Real Estate Bank, Al Baraka Bank of Sudan, The Sudanese French Bank, The Saudi Sudanese Bank, Bright Blue Nile Bank, The Nile Bank, Commercial farm bank, Al-Jazira Sudanese Bank of Jordan, The banking branch of Qatar National Islamic Bank, United Money Bank, Export Development Bank, National Bank of Sudan, Peace Bank, Family Bank, The Savings and Social Development Bank, Bank of Khartoum, The Sudanese Islamic Bank, National Bank of Abu Dhabi, Arab Sudanese Bank, National Bank of Egypt (Khartoum), Qatar Islamic Bank, Abu Dhabi Islamic Bank, Gulf bank, Katelem Agricultural Bank. (The central bank of Sudan, 2019) with different activities and different sizes. The current study focuses on the Islamic banks, namely (Al-Tadamon Islamic Bank, The Sudanese Islamic Bank, Qatar Islamic Bank, Abu Dhabi Islamic Bank, and Faisal Islamic Bank) the 73 questionnaires were drawn exactly from the middle and top management in Al-Tadamon Islamic Bank and the study used probability sampling technique exactly random sampling.

Results

Reliability analysis

Reliability is a measurement of the degree of consistency between multiple measurements of variables (Hair, 2010) for testing reliability, this study has used Cronbach's alpha as a diagnostic measure, which assesses the consistency of the entire scale, since being the most widely used measure (Sharma, 2000). According to (Hair, 2010), the lowest limit for Cronbach's alpha is 0.70, although it may decrease to 0.60 in exploratory research. While (Roberts, 1980) considered Cronbach's alpha values greater than 0.60 are to be taken as reliable. The results of the reliability analysis summarized in Table 1 confirm that all scales display a satisfactory level of reliability (Cronbach's alpha exceed the minimum value of (0.676) as a conclusion, the measures which were used have an acceptable levels of reliability (Tables 2, 3, 4, 5, 6, 7).

Table 3 Rotated factor for operations management

Items no:	Component
The process instructions are standardized and documented	0.742
The process instructions are well understood by the staff	0.813
Production processes are designed to reduce employee error opportunities	0.768
Checks are performed regularly to ensure that high-quality products and services are provided	0.883
We emphasize the continuous improvement of quality in all business processes	0.722
Total Variance Explained	62.068
Kaiser–Meyer–Olkin(KMO)	0.797
Bartlett’s Test of Sphericity	116.636

Factor analysis on operational management exploratory factor analysis has done on operational management; five elements were involved in the process. The total variance explained by these elements has 62.068, and the KMO scoured 0.797 The superior loading was (Checks are performed regularly to ensure that high-quality products and services are provided 0.883)

Table 4 Factor analysis focus on customer response

Items no:	Component
If a competitor launches an aggressive campaign targeting our customers, we will respond immediately	0.709
Customer complaints are on deaf ears in our organization	0.814
We quickly respond to major changes in the pricing structures of competitors	0.678
Total Variance Explained	54.198
Kaiser–Meyer–Olkin(KMO)	0.589
Bartlett’s Test of Sphericity	15.988

Factor analysis on customer response exploratory factor analysis has been conducted to variable customer response the total variance explained by these items was 54.198, KMO scoured 0.589 The upper loading was (customer complaints are on deaf ears in our organization 0.814)

Table 5 Rotated factor for financial performance

Items no:	Component
We have succeeded in increasing our sales over the last 5 years	0.847
We have improved our profits over the last 5 years	0.912
We have managed to increase our market share over the last 5 years	0.845
Our market experience has helped us achieve our strategic objectives	0.808
The company’s knowledge of the markets helped it achieve its strategic objectives	0.855
We have managed to achieve saturation in the last 5 years	0.844
Total Variance Explained	72.670
Kaiser–Meyer–Olkin(KMO)	0.916
Bartlett’s Test of Sphericity	227.484

Factor analysis on financial performance exploratory factor analysis was done on variable financial performance, six points were involved in the procedure and all of the components were loaded into a single component. The total variance explained by these aspects has 72.670, besides the KMO was 0.916 the upper component accounted 0.912 (We have improved our profits over the last 5 years)

Table 6 Correlation analysis, Pearson’s correlation coefficient

Variables	OM	CR	FP
Operations Management	1	0.139	0.504
Customer Response	0.139	1	0.195
Financial Performance	0.504	0.195	1

Table 7 Multiple regressions: customer responses and financial management (Beta coefficient)

Variable	Financial management
Customer Response	0.59**
R^2	0.085
Adjusted R^2	0.068
ΔR^2	0.085
F change	5.091**

Level of significant: * $p < 0.10$, ** $p < 0.05$ **Table 8** Multiple regressions: customer responses and operational management (Beta coefficient)

Variable	Operations management
Customer response	0.562**
R^2	0.006
Adjusted R^2	−0.012
ΔR^2	0.006
F change	0.341**

Level of significant: * $p < 0.10$, ** $p < 0.05$ **Table 9** Multiple regressions: operations management and financial management (Beta coefficient)

Variable	Financial management
Operations management	0.614**
R^2	0.400
Adjusted R^2	0.390
ΔR^2	0.400
F change	36.731**

Level of significant: * $p < 0.10$, ** $p < 0.05$

Hypothesis testing in Table 7 shows the result from hierarchical regression between Customer response and financial performance ($\beta = 0.59$; F change = 5.091), hence H1 (Customer response and financial management) were accepted (Table 7).

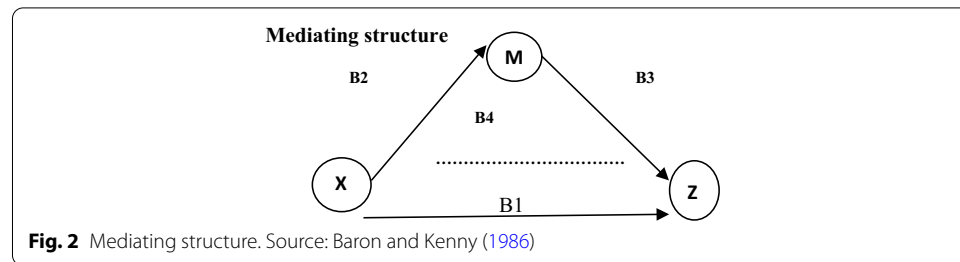
Hypothesis testing in Table 8 shows the result from hierarchical regression between Customer response and operations management ($\beta = 0.562$; F change = 0.341), hence H2 (Customer response and operational management) were accepted.

Multiple regressions: operational management and financial management the study exams the link between operational management and financial management the findings show in Table 9 that operational management influenced financial management ($\beta = 0.614$; F change = 36.731).

Table 10 testing H4 (operations management mediates the relationship between customer response and financial performance). The findings presented in Table 10 reflect that, the operational management partially mediates the relationship between customer responses and financial performance. To test these hypotheses, this study was applied a three-step hierarchical regression recommended by (Baron & Kenny, 1986). First step, the independent variable must affect the dependent variable significantly (β_1 must be

Table 10 Multiple regressions: mediating effect of operations management and financial management (Beta coefficient)

Variable	Model 1	Model 2
Customer response	0.105	0.066*
R^2	0.016	0.020
Adjusted R^2	−0.001	−0.016
ΔR^2	0.016	0.004
F change	0.919	0.212*

Level of significant: * $p < 0.10$, ** $p < 0.05$ 

significant). Second step, the independent variable should affect the mediating variable (β_2 must be significant). Third step, mediating variable must influence the dependent variable significantly (β_3 must be significant). On the other hand, to establish whether mediator is fully or partial mediating the relationship between the independent variable and dependent variable, the impact of independent variable on dependent variable controlling for mediating variable should be zero or β_4 is not significant in fully mediator, while partial mediator exists once β_4 is significant but reduced. To establish that the mediator (M) is fully mediates the relationship between the initial variable (X) and outcome variable (Z), the impact of X on Z controlling for M should be zero or β_4 is not significant, whereas partially, mediator exists when β_4 is significant. As shown in Fig. 2.

The summary of results

This study aims to examine the relationship of variables; customer response and financial performance; customer response and operations management; operations management and financial performance; and mediating effects of operations management between customer response and financial performance.

The results of the study show that customer responses have a positive relationship with financial performance; (hypothesis one supported) also the result reflects that customer responses connected positively with operations management (hypothesis 2 supported), besides the positive correlation between operations management and financial performance (hypothesis 3 supported), the last result for the mediating effect and the outcome shows that operations management partially mediate the relation between customer response and financial performance (hypothesis 4 partially supported).

Discussion

The study aims to better understanding the relations between variables; Customer response, and financial performance, customer response and operations management, besides the relation of the operations management and financial performance. First, our result indicates the positive relationship between customer response and financial performance that means good customer response leads to high financial performance. The finding consistent with the conclusions of (Schwepker & Schultz, 2015) also consistent of (Paulo & Pereira, 2006) findings. Besides the agreed with (Hwang et al. 2012) their result indicated that crowding directly affected approach-avoidance responses and performance, Also consistent with (Jones et al., 2010) and their result Affective commitment was a significant and positive predictor of all three customer responses dimensions, Also the result similar to (Brunner et al., 2019), and their outcome customer responses and brand response enhancing performance, agreed with (Shin & Larson, 2020) and their result customer response has an influence on performance and perceived trustworthiness of the firm, besides the similarity with (Wang & Beise-Zee, 2013) their outcome reflects that, service responses positive effects on customer evaluations of service performance.

The result also similar to (Roschk & Hosseinpour, 2020) their result indicates to influence of customer response variables: Mood (Activation, Valence & Control); Evaluations (Product evaluations, Environmental quality, and Shopping satisfaction); Memories (Recall, and Time elusiveness); Intentions (Purchase, and Intention to recommend); Behaviors (Expenditures, and Lingerings) on performance. In addition (Leaniz et al. 2018) reflected that customer perception of green practices positively affect the green images of companies, which also positively affects customer behavioral, and performance.

Second, our results show the positive relationship between customer response and operational management, there are no studies connect directly between customer response and operational management (et al., 2004) argued that a firm's customer response speed is increasingly critical for sustained success (Chianga et al., 2015).

Third, our analyses identify a surprising finding, where operational management has a positive relationship with financial performance. There is a few researchers associate indirectly between operational management and financial performance, this finding is consistent with the conclusions of (Perdikaki et al., 2015) Also Omar (Masood & Javaria, 2019) study shown a positive association between Implementation management and financial performance of the Takaful Industry. In addition, (et al., 2016) found that sales is positively related to higher operational, and profit (Rangarajana et al., 2018) similarly (Dao et al. 2020) revealed the positive effect of operations management variables (Just in time practices, quality management practices, and infrastructure practices) on bank performance. Fourth, the mediation effect the operational management was partially mediated the customer response and financial performance. The current study introduced new relations between various variables besides the little of previous studies in this field.

Conclusions

The current study is an attempt to explain the importance of customer response among the bank's administrator's concepts. Alongside this, the study investigated the correlation between variables; customer responses and financial performance, customer

responses, and operations management, operations management, and financial performance, besides the mediating effect of operations management on the relations between customer response and financial performance. The sample size of the study was 73 questionnaires delivered hand by hand to managers in the top and middle management. Questionnaire items were shown as following; customer responses included three items, operations managements included five items, and financial performance included six items. The attention of customer response affected positively on financial performance and operations management. Operations management related to financial performance positively. Focusing on the outcomes of study financial performance affected by customer response and operations management then banks administrations should be careful about customer response and operations management.

The results provided empirical support for the theoretical framework, reflected the fact that the study had adequately addressed the questions of the study. The study also highlighted the implication, limitations, and suggestions for future research.

Managerial implications

The outcomes of the current study will motivate top management in the business organization to build strong relations with the variables of the study (Customer response and financial performance, customer response and operational management, besides the relation of the operational management and financial performance) the current study reflected that the attention to customer response increase market share, enhancing profitability, and increase sales. In addition, financial performance can be increased through effective operational management. Thus, the current study encouraged Sudanese Islamic Banks managers to focus on customer response and operational management, because they are important factors for improving financial performance. This study also contributes to managerial practices in all sizes of the banks, as shown in the following: for the big size of the banks; attention to customer response provide an external environment and support them with new competitive advantage besides the analytical tools needed for strategic decision support, then expand their activities, achieve their financial objectives, improve their competitive position, and enhancing their economic and non-economic performance. For the medium size of the banks; increasing financial performance through attention to customer response and operational management reinforce them for facing their threats, help them seizing their opportunities, then expanding their activities. Finally, for the small size of the banks; attention to customer response makes them reducing weak points, providing strengthens points, and foster them for facing the external environment.

Limitations of the study

The study focused the on sector of the banks specifically Islamic banks in Sudan. Therefore, it is unacceptable to generalize the results of different businesses and different countries. The study not covered all services sectors in the business organization just concentrated on the services at the banks then it's not covered the organization which produced tangible products. In addition, our theoretical framework was limited

framework has to considered a summary of the most commonly studied variables, further studies that can increase variables such as non-financial performance and marketing performance besides moderating variables can be entered and simultaneously increase the elements of the variables. The sample size was limited because of the difficulties of distribution questionnaires.

Suggestions for future studies

Depending on the above limitations of the study, the current study introduced a number of suggestions for further studies. Future researches can repeat this study with increasing sample size and different contexts, such as different sectors or dissimilar states. In addition, the model or framework of the study was simple and limited, further researches can enter several variables, such as moderating variables or increase the aspects of the current variables.

Abbreviations

OP: Operations Management; CR: Customer response; FI: Financial performance.

Acknowledgements

First, great thanks are humbly extended to Allah almighty who give me strength and endurance to complete this study. Second, I express my thanks and appreciation to all my family, specially father, mother, Brothers and sisters. Finally, but not least I'm thankful to all, colleagues and friends who help me to complete my study at the university a memorable and valuable experience to all of them.

Authors' contributions

OME have built a new model in business environment joined between three new variables to gather, the framework reflect in the Fig. 1. All the authors read and approved the final manuscript.

Authors' information

Osama Mohamed Ahmed Enad, PHD—Department of Business Administration, College of Sciences and Arts, Jouf University, KSA, Omdurman Islamic university, Department of Business Administration- Sudan.

Funding

No funding, personal support.

Availability of data and materials

The data available in Saudi electronic library, about the present article data it will be available in the journal web site after publication.

Declarations

Competing interests

There is no competing interests in this study.

Received: 19 January 2020 Accepted: 15 September 2021

Published online: 04 March 2022

References

- Abd Rahim, R., Jalaludin, F. W., & Tajuddin, K. (2011). The importance of corporate social responsibility on consumer behaviour in Malaysia. *Asian Academy of Management Journal*, 16(1).
- Abidin, A. F. Z., Hashim, H. A., & Ariff, A. M. (2017). Ethical commitments and financial performance: evidence from publicly listed companies in Malaysia. *Asian Academy of Management Journal*. <https://doi.org/10.21315/aamj2017.22.2.3>
- Afolabi, A., Olabisi, J., Kajola, S. O., & Asaolu, T. O. (2019). Does leverage affect the financial performance of Nigerian firms? *Journal of Economics & Management*, 37, 5–22.
- Akbarian, D. (2020). Overall profit Malmquist productivity index under data uncertainty. *Financial Innovation*, 6(1), 1–20.
- Albaum, G., & Wiley, J. (2010). Consumer perceptions of extended warranties and service providers. *Journal of Consumer Marketing*, 27, 516.
- Ali, L., & Dhiman, S. (2019). The impact of credit risk management on profitability of public sector commercial banks in India. *Journal of Commerce and Accounting Research*, 8(2), 86.
- Anand, N., & Grover, N. (2015). Measuring retail supply chain performance: Theoretical model using key performance indicators (KPIs). *Benchmarking: An international journal*.

- Aqmal, D., & Ardyan, E. (2019). How does a salesperson improve their performance? The important role of their customer smart response capability. *Gadjah Mada International Journal of Business*, 21, 223.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173.
- Battistoni, E., Bonacelli, A., Fronzetti Colladon, A., & Schiraldi, M. M. (2013). An analysis of the effect of operations management practices on performance. *International Journal of Engineering Business Management*, 5(Godšte 2013), 5–43.
- Batra, I., & Dhir, S. (2019). The effects of psychic distance and inter-partner fit on the performance of international joint ventures. *Asian Academy of Management Journal*, 24(1), 151.
- Brunner, C. B., Ullrich, S., & De Oliveira, M. J. (2019). The most optimal way to deal with negative consumer review: Can positive brand and customer responses rebuild product purchase intentions? *Internet Research: Electronic Networking Applications and Policy*, 29(1), 104–122.
- Chiang, A. H., Chen, W. H., & Wu, S. (2015). Does high supply chain integration enhance customer response speed? *The Service Industries Journal*, 35(1–2), 24–43.
- Dao, A. M., Walker, B., & Strickler, C. Impact of Operations Management Practices On Firm Performance: An Empirical Analysis at Vietnam's Mechanical Firms.
- Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of marketing*, 58(4), 37–52.
- de Leaniz, P. M. G., Herrero Crespo, A., & Gómez López, R. (2018). Customer responses to environmentally certified hotels: The moderating effect of environmental consciousness on the formation of behavioral intentions. *Journal of Sustainable Tourism*, 26(7), 1160–1177.
- Demir, A. (2019). The impact of strategic operations management decisions on shoppers' wellbeing. *Asian Academy of Management Journal*, 24(1), 25.
- Dotson, J. P., & Allenby, G. M. (2010). Investigating the strategic influence of customer and employee satisfaction on firm financial performance. *Marketing Science*, 29(5), 895–908.
- Gatsi, J. G., Gadzo, S. G., & Akoto, R. K. (2013). Degree of financial and operating leverage and profitability of insurance firms in Ghana. *International Business and Management*, 7(2), 57–65.
- Hair, J. F., Ortinau, D. J., & Harrison, D. E. (2010). *Essentials of marketing research* (Vol. 2). New York, NY: McGraw-Hill/Irwin.
- Halim, H. A., Ahmad, N. H., Ramayah, T., & Taghizadeh, S. K. (2016). Capturing the pioneering minds via human capital: the impact on innovative performance of Malaysian SMEs. *Asian Academy of Management Journal*. <https://doi.org/10.21315/aamj2016.21.supp.1.5>
- Han, M. P., Seok, B. I., & Kim, J. H. (2017). effects of six personality factors of CEOs at small and medium-sized enterprises on performance in business management: focusing on learning and growth. *Asian Academy of Management Journal*, 22(2), 97.
- He, D., & Deng, X. (2020). Price competition and product differentiation based on the subjective and social effect of consumers' environmental awareness. *International Journal of Environmental Research and Public Health*, 17(3), 716.
- Hilal, F., & Hilal, S. (2017). The effect of supply chain management practices on financial performance via analytic hierarchy process. *Journal of Empirical Research in Accounting & Auditing*, 4(01), 55–68.
- Hwang, J., Yoon, S. Y., & Bendle, L. J. (2012). Desired privacy and the impact of crowding on customer emotions and approach-avoidance responses. *International Journal of Contemporary Hospitality Management*.
- Ismail, A. I., Rose, R. C., Abdullah, H., & Uli, J. (2010). The relationship between organisational competitive advantage and performance moderated by the age and size of firms. *Asian Academy of Management Journal*, 15(2), 157–173.
- Jayachandran, S., Hewett, K., & Kaufman, P. (2004). Customer response capability in a sense-and-respond era: The role of customer knowledge process. *Journal of the Academy of Marketing Science*, 32(3), 219–233.
- Jermittiparsert, K., Sutdewan, J., Sriyakul, T., & Khumboon, R. (2019). The role of customer responsiveness in improving the external performance of an agile supply chain. *Polish Journal of Management Studies*, 19, 206.
- Jones, T., Fox, G. L., Taylor, S. F., & Fabrigar, L. R. (2010). Service customer commitment and response. *Journal of Services Marketing*, 24, 16.
- Kim, R. B., & Zhao, M. (2014). Chinese consumers' brand loyalty for consumer products: Importance of brand personality as major antecedent of brand loyalty. *Asian Academy of Management Journal*, 19(1), 1.
- Liu, J. (2019). Customer satisfaction and firms' innovation efforts in marketing: taking shipping logistics companies as an example. *Journal of Coastal Research*, 94(SI), 940–944.
- Malhotra, S. K., Sarabhai, S., & Malhotra, P. (2019). Impact of fee-based services on the financial performance of the banks: an empirical study. *Journal of Entrepreneurship and Management*, 8(3), 45.
- Manikas, I., Sundarakani, B., & Iakimenko, V. (2019). Time-based responsive logistics for a maintenance service network: A case study of an automated teller manufacturer. *Journal of Quality in Maintenance Engineering*.
- Melwani, R. (2019). Impact of internal financial determinants on financial performance. *Journal of Commerce and Accounting Research*, 8(3), 75.
- Moosmayer, D. C., & Fuljahn, A. (2010). Consumer perceptions of cause related marketing campaigns. *Journal of Consumer marketing*, 27, 543.
- Mugo, D. M., Muathe, S., & Waithaka, S. T. (2019). Performance analysis of debit card services on deposit-taking SACCOs' financial performance: A Case of Kenya.
- Muhammad, M. N., & Cavus, N. (2017). Fuzzy DEMATEL method for identifying LMS evaluation criteria. *Procedia computer science*, 120, 742–749.
- Nyathira, C. N. (2012). *Financial innovation and its effect on financial performance of commercial banks in Kenya* (Doctoral dissertation).
- Omar, M., & Javaria, K. (2019). Implementation of Enterprise Risk Management Practices in Organizations: An Empirical Analysis of Takaful Industry Financial Performance. *Journal of Islamic Financial Studies*, 5(1).
- Paulo, A. A., & Pereira, L. S. (2006). Drought concepts and characterization: comparing drought indices applied at local and regional scales. *Water International*, 31(1), 37–49.

- Pedaste, M., Mäeots, M., Siiman, L. A., De Jong, T., Van Riesen, S. A., Kamp, E. T., et al. (2015). Phases of inquiry-based learning: Definitions and the inquiry cycle. *Educational research review*, 14, 47–61.
- Perdikaki, O., Peng, D. X., & Heim, G. R. (2015). Impact of customer traffic and service process outsourcing levels on e-retailer operational performance. *Production and Operations Management*, 24(11), 1794–1811.
- Prihastomo, E. D., & Khafid, M. (2018). The effect of bonus compensation and leverage on earnings management with financial performance as intervening variable. *Accounting Analysis Journal*, 7(1), 52–60.
- Rai, A., & Prakash, A. R. (2019). A comparative study on financial performance of power generating companies in India. *Journal of Commerce & Accounting Research*, 8(4).
- Rangarajana, D., Sharmab, A., Paesbrughe, B. (2018). Robert Bouted, Aligning sales and operations management: an agenda for inquiry. *Journal of Personal Selling & Sales Management*, 221–227.
- Roberts, R. E. (1980). Reliability of the CES-D scale in different ethnic contexts. *Psychiatry Research*, 2(2), 125–134.
- Roschk, H., & Hosseinpour, M. (2020). Pleasant ambient scents: A meta-analysis of customer responses and situational contingencies. *Journal of Marketing*, 84(1), 125–145.
- Ross, A. (2002). A multi-dimensional empirical exploration of technology investment, coordination and firm performance. *International Journal of Physical Distribution & Logistics Management*, 32, 591.
- Schwepeker, C. H., & Schultz, R. J. (2015). Influence of the ethical servant leader and ethical climate on customer value enhancing sales performance. *Journal of Personal Selling & Sales Management*, 35(2), 93–107.
- Sharma, S. (2000). Managerial interpretations and organizational context as predictors of corporate choice of environmental strategy. *Academy of Management Journal*, 43(4), 681–697.
- Shin, H., & Larson, L. R. (2020). The bright and dark sides of humorous response to online customer complaint. *European Journal of Marketing*, 54, 2013.
- Sintha, L. (2018). Financial performance banking model in indonesia before and after implementation of PBI No. 13/1/PBI/2011: risk profile bank regional development. *KnE Social Sciences*, 937–951.
- Trivedi, S. R. (2015). Banking innovations and new income streams: impact on banks' performance. *Vikalpa*, 40(1), 28–41.
- Vahdati, H., & Mousavi Nejad, S. H. (2016). Brand personality toward customer purchase intention: the intermediate role of electronic word-of-mouth and brand equity. *Asian Academy of Management Journal*, 21(2), 1.
- Vazifteh dust, H., Khalili, M., (2017). Store Brand Strategy: Impact of Store Environment on Customer Response, *International Journal of Scientific Management and Development*.
- Wang, Y. C., & Beise-Zee, R. (2013). Service responses to emotional states of business customers. *Managing Service Quality: An International Journal*.
- Wen, T. H., Vandyke, D., Mrksic, N., Gasic, M., Rojas-Barahona, L. M., Su, P. H., et al. (2016). A network-based end-to-end trainable task-oriented dialogue system. arXiv preprint [arXiv:1604.04562](https://arxiv.org/abs/1604.04562).
- Widana, G. O., Wiryo, S. K., Purwanegara, M. S., & Toha, M. (2015). Exploring the impact of Islamic business ethics and relationship marketing orientation on business performance: The Islamic banking experience. *Asian Academy of Management Journal*, 20(1), 1.
- Wong, K. L., & Tan, C. L. (2018). Adaptive selling behaviour: A study among salesperson in pharmaceutical industry. *Asian Academy of Management Journal*, 23(1), 1–22.
- Yahya, W. K., & Ha, N. C. (2014). Investigating the relationship between corporate citizenship culture and organisational performance in the Malaysian context. *Asian Academy of Management Journal*, 19(1), 47.
- Zhang, X. (2016). A Petri net based simulation to study the impact of customer response to stock-out on supply chain performance. *Cogent Engineering*, 3(1), 1220112.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Submit your manuscript to a SpringerOpen[®] journal and benefit from:

- Convenient online submission
- Rigorous peer review
- Open access: articles freely available online
- High visibility within the field
- Retaining the copyright to your article

Submit your next manuscript at ► [springeropen.com](https://www.springeropen.com)