



Employee Perception of the Impact of New Technology on Organizational Performance: A Case Study of Anuzo Palm Kernel Oil, Emene, Enugu, Nigeria

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

Article Information

DOI: 10.9734/AJEBA/2020/v19i430313

Editor(s):

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Complete Peer review History: <http://www.sdiarticle4.com/review-history/61411>

Original Research Article

Received 10 August 2020
Accepted 15 October 2020
Published 28 November 2020

ABSTRACT

This study was a critical analysis of the employee perception of the impact of new technology on organizational performance. It was motivated by the often reported employee misalignment with the organizational objective of enthroning new technology as a way of staying afloat in the competition-ridden business climate. The objectives were to: Ascertain the perceived influence of acquisition of new technology on customer loyalty at Anuzo palm Kernel oil in Enugu, and to (ii) determine the extent to which introduction of new methods of production affects customer repeat purchase at Anuzo Kernel palm oil in Enugu. The study employed a quantitative situation analysis study (SAS) approach. In this approach, the quantitative opinion survey technique was employed in gathering data. The data were analyzed statistically. The result of the study shows that the employee of the organization, therefore, sees it as a medium towards effective management and consistent delivery of services to customers which in turn brings about repeated purchases and loyalty from the customers.

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Keywords: Competition-ridden business; kernel oil; organizational performance; loyalty.

1. INTRODUCTION

The business environment today is dynamic, and any organization expecting this to slow down is likely to be disappointed now or in the future. This dynamism in the business environment comes from multifaceted contexts namely: social, political, economic, technological, and local environmental forces which may have a positive or negative impact on businesses. To mitigate negative impacts and to ensure that businesses take advantage of opportunities within the business environment, management becomes essential in deciding what is healthy for the organization and what is not, including the significance of adopting a new technology philosophy for the enterprise. For such organizations to survive, they must adapt to these changes [1]. Successfully adapting to the change(s) in an organization especially the introduction of new technology, depends to a great extent on how well the organization and its relevant stakeholders especially employees, perceive and understand the need for it and the processes involved. Therefore, employee perception of the impact of new technology is how employees in an organization feel about the likely consequences of the enthronement of a particular new technology. Anuzo palm oil started some years back as a small oil processing factory. Initially, they were flourishing as they only catered for local consumers with little demand. However, due to the entry of competitors with the state-of-the-art technologies, the fortune of the company started dwindling. ANUZO palm oil had no option than to acquire the new technology of refining its product to make it more appealing to customers. The acquisition of new technology has changed the work processes, procedures, and methodology. As a result of the new approach, it appears that workers in the firm are finding it difficult to embrace the change in processes, methodology, and procedures. Thus, the study sought to investigate how a change in the production processes at Anuzo palm oil firm has affected the organizational performance.

The present study is an attempt to investigate the nexus between employee perception of new technology and organizational performance in the context of the palm kernel oil production company in Enugu, Nigeria. The research hypotheses for the study are:

H1: There is a perceived influence of acquisition of new technology on customer loyalty at Anuzo palm Kernel oil in Enugu.

H0: There is no perceived influence of acquisition of new technology on customer loyalty at Anuzo palm Kernel oil in Enugu.

H1: The introduction of new methods of production affects customer repeat purchase at Anuzo Kernel palm oil in Enugu.

H0: The introduction of new methods of production does not affect customer repeat purchase at Anuzo palm Kernel oil in Enugu.

The rest of this study will be under the following major sections: literature review, methodology, findings, discussions and conclusion, limitations, and references.

2. LITERATURE REVIEW

2.1 Employee Perception of Impact of New Technology

Employee perception has been described by scholars as a process by which individuals organize and interpret their sensory impressions to give meaning to their environment [2]. Though Perception does not always mirror reality, it is the prism through which an individual views a particular situation or event. In social science generally, and organizational behavior, in particular, perception is important because the way individuals behave is anchored on their perception of what reality is, not necessarily on reality itself; and scholars have noted that the world as it is perceived is the world that is behaviorally important [2]. It has been also stressed that for an organization to achieve its expected outcomes, it is imperative to have the right human resource practices as well as the right employee perceptions of those practices [3]. New technology adoption is one of those practices and perception of its impact by employees plays a crucial role in its success. Many employees resist new technology in organizations because of the way they perceive the impact the technology would have on their overall experience in the organization; and underestimating the resistance to new technology is one of the biggest mistakes that managers make [4]. When employees are unfavorably disposed about a given new

technology, they tend to engage in activities that weaken its implementation. Therefore, it is expected that having employees with a positive perception of the impact of new technology will help an organization in the implementation of that kind of change more readily. A favorable perception of the impact of new technology can as well be advantageous if it extends to other organizational citizenship behaviours that enhance good organizational functioning [5,4].

From a global perspective, many scholars have investigated employee perception as it relates to new technology in an organization. Among the scholars include: those from Centre for Advanced Human Resource Studies [3] found that when employees perceive that human resource practices reflect a commitment to quality, and are based on seeing employees as assets, they have higher commitment and satisfaction. If employees viewed the practice as a sign that the company values quality service or products, and will empower employees to produce them, employees were more satisfied and supportive [3]. Also, in their study on Employee Perception towards Technology in Banking Sector found that employee perception has a significant effect on organizational performance. In another study by [3], they found that employees with a positive perception of new technology were more likely to have higher levels of both civic virtue and organizational citizenship behavior. They contend that a positive work attitude towards new technology emerges as a valuable human resource strategy. Another study, [6] studied Employee attitudes toward new technology in a unionized manufacturing firm in the USA.

From the African perspective, the effect of technology perception of employees on organizational performance; in the public and private banks in Pakistan and found that Technology Perception of Employee Generation and Organizational Performance is statistically significant.

In the Nigerian space, efforts of several authors have been made in the area of employee perception of the impact of new technology. [7], in their study which bordered on Technology usage and employee behavior: Controversies, complications, and implications in the Nigerian business environment, showed that "when a new technology is deployed for a task or an activity, that new technology may influence employee's performance if the technology is adopted

(employee behaviour which could improve the productivity of the organization justifying management investment in the technology" [7].

From the above literature, it is evident that employee perception of the impact of new technology in today's organization is important. This is because there is a need for employees to be carried along in the organization's state of affairs to unify the employees for the successful implementation of the organizational objectives. Secondly as noted above, employees with a positive perception towards new technology were more likely to have higher levels of both civic virtue and organizational citizenship behavior. From the submissions of [3]; [3], it is incontrovertibly evidential that managing employee perception in the implementation of new technology is a veritable strategy for effective organizational performance.

2.2 Organizational Performance

On the other hand, Organizational performance is the way an organization performs to meet its objectives; a quantifiable measure that indicates the progress of the company [8]. Organizational performance can be assessed through the company's efficiency and effectiveness in reaching its defined goals. Customer loyalty is a customer's willingness to repeatedly return to a company to conduct businesses due to delightful and remarkable experiences with that brand.

2.3 The Theoretical Underpinning of the Study (Ambidexterity Theory)

In his work, March (1991) on exploration and exploitation in organizational learning had argued that "maintaining an appropriate balance between exploration and exploitation is a primary factor in system survival and prosperity". Since then, many other theoretical fields such as technology and innovation have adopted this theory as organizational ambidexterity [9]. Organizational ambidexterity is a process that is made of two parts namely, exploration and exploitation [10]; and its main postulation for achieving improved performance in an organization is to balance between the activities an organization has been doing (exploitation) and those the organization is not doing yet but would want to start doing [exploration] [11].

The principle of the theory is that any organization needs a balance in its system in doing what it is already doing (exploitation) and

what it is not already doing (exploration). "The interplay between the two (exploration and exploitation) occurs in form of a zero-sum game where exploration and exploitation compete for scarce resources, attention, and organizational routines" [12]. The bottom line is that if a firm or an organization overemphasize exploration, they risk using scarce resources and getting unsatisfactory payback, thus depressing short-term benefits; and if organizations overemphasize exploitation, they reduce learning new skills and might become captive to outdated competencies, technologies, that might depress long-term performance.

Application of the theory to this study. In his scientific management postulation, emphasized that there is a need for scientific training and education in an organization to meet up with employees' knowledge shortfall as a result of obsolescence and emergence of new realities. For an organization to grow, its employees need to have a perception of the objective of its management, especially inculcating the appropriate impact of introducing a new technology in the organization. It needs to combine both old and new ways of doing things for adaptability and sustainability. Therefore, employee perception of the impact of new technology is anchored within the context of the desirability of an organization's manager to prosper the organization in doing things better (exploitation of its areas of competence) and in doing better things (exploration of the organization's areas of opportunity).

3. METHODS

The design of the study is a survey. The population of the study comprises all employees in the Anuzo kernel oil company. The sources of data consist of both primary and secondary sources. The primary data comprise the responses of the employees from the structured questionnaire. The secondary source is made up of published information from journals and internet repositories. The study adopted convenience sampling in data gathering. The analysis of the data is done using descriptive statistics. A sample size of 70 was obtained from the population of the study, using Yamane's sample size determination formula. The instrument used for data collection of primary data was the questionnaire. This was structured on a five-point Likert-scale (SA = Strongly Agree (4); Agree (3); Disagree (2); Strongly Disagree (1). The instrument used face validity. The

reliability test was done using the test re-test method. The result gave a reliability coefficient of 0.76 indicating a high degree of item consistency. Two hundred and eighteen (70) copies of the questionnaire were distributed and two hundred and twelve (63) copies were correctly returned, representing a 90.00% response rate. The hypotheses formulated were tested at 0.05 level of significance.

4. RESULTS PRESENTATION

The various result of the study are presented in descriptive.

Table 1 shows the gender of the participants. From the table result, majority 38 respondents representing 60.3% are male while 25 representing 39.7% are female. This shows that majority of the organization are males.

Table 2 shows the age of the respondents. From the result in the table, 13(20.6%) of the participants are between 21-30 years while 25(39.7%) are between 31-40 years and 12(19.0%) are aged 41-50 years. Also only 13(20.6%) are 51 years and above. It therefore implies that majority are aged 31-40 years.

Table 3 shows the marital status of the respondents. From the result in the table Majority 37(58.7%) are married while 26(41.3%) are singles.

Table 4 shows that educational level of the respondents. From the result in the table, majority 37(58.7%) have HND/BSC while 13(20.6%) have either OND/NCE or Ph.D.

Table 5 shows the working experience of the respondents. From the result in the table, 26(41.3%) have 4-6 years of working experience while 25(39.7%) have 1-3 years with only 12(19.0%) having 7-10 years of working experience. This shows that majority have 4-6 years working experience.

Table 6 shows the participants responses towards perceived influence of acquisition of new technology on customer loyalty. From the result of the study, 38(60.3%) strongly agreed that their company's acquisition of processing machines increased our customers' buying frequency while 25(39.7%) agreed. Also 26(41.3%) of the participants strongly agreed that the acquisition of machines with manual enable their employees to answer their customers' frequently asked

questions while 37(58.7%) agreed. Meanwhile 25(39.7%) strongly agreed that their new marketing style has enabled their customers participate in the promotion of their products and services and 38(60.3%) strongly agreed. With a grand mean of it is therefore concluded that there is perceived influence of acquisition of new technology on customer loyalty at Anuzo palm Kernel oil in Enugu.

Table 7 shows the response responses towards introduction of new methods of production affects customer repeat purchase. From the result in the table, 37(58.7%) of the participants strongly agreed that they use one of

the most advance methods in their industry and that helps their customers to be retained in the organization while 26(41.3%) agreed. Also all the respondents agreed that their delivering mode is fast and enables their customers' get their products quickly. Meanwhile 24(38.1) strongly asserted that the ordering system of our company products/services is accessible and our customers easily recommend them to their friends while 26(41.3%) agreed and 13(20.6%) disagreed. With a grand mean of 4.51 and standard deviation of 1.59. It is evidence that the introduction of new methods of production affects customer repeat purchase at Anuzo Kernel palm oil in Enugu.

Table 1. Gender of the respondents

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Male	38	60.3	60.3	60.3
	Female	25	39.7	39.7	100.0
	Total	63	100.0	100.0	

Table 2. Age of the respondents

		Frequency	Percent	Valid percent	Cumulative percent
Valid	21-30	13	20.6	20.6	20.6
	31-40	25	39.7	39.7	60.3
	41-50	12	19.0	19.0	79.4
	51 and above	13	20.6	20.6	100.0
	Total	63	100.0	100.0	

Table 3. Marital status of the respondents

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Single	26	41.3	41.3	41.3
	Married	37	58.7	58.7	100.0
	Total	63	100.0	100.0	

Table 4. Level of education of the respondents

		Frequency	Percent	Valid percent	Cumulative percent
Valid	OND/NCE	13	20.6	20.6	20.6
	HND/BSC	37	58.7	58.7	79.4
	M.Sc/MA/M.Ph.D	13	20.6	20.6	100.0
	Total	63	100.0	100.0	

Table 5. Work experience of the respondents

		Frequency	Percent	Valid percent	Cumulative percent
Valid	1-3 years	25	39.7	39.7	39.7
	4-6 years	26	41.3	41.3	81.0
	7-10 years	12	19.0	19.0	100.0
	Total	63	100.0	100.0	

Table 6. Participants responses towards perceived influence of acquisition of new technology on customer loyalty

Items	SA	A	UD	D	SD	Mean	St. D
Our company's acquisition of processing machines increased our customers' buying frequency	38(60.3)	25(39.7)	-	-	-	4.60	.493
Our acquisition of machines with manual enable our employees to answer our customers' frequently asked questions	26(41.3)	37(58.7)	-	-	-	4.41	.496
Our new marketing style has enabled our customers participate in the promotion of our products and services	25(39.7)	38(60.3)	-	-	-	4.39	.493

Table 7. Response responses towards introduction of new methods of production affects customer repeat purchase

Items	SA	A	UD	D	SD	Mean	St.D
We use one of the most advance methods in our industry and that helps our customers to be retained in the organization	37(58.7)	26(41.3)	-	-	-	4.58	.496
Our delivering mode is fast and that enables our customers' get our products quickly.	63(100)		-	-	-	5.00	.000
The ordering system of our company products/services is accessible and our customers easily recommend them to their friends	24(38.1)	26(41.3)	-	13(20.6)	-	3.96	1.106
Grand Mean						4..51	

5. DISCUSSION OF FINDINGS

The result of the study shows that there is a perceived influence of acquisition of new technology on customer loyalty at Anuzo palm Kernel oil in Enugu. In today's society, where the use of technology has become a cardinal source of success, organizations reliance on technology, is paramount. In Anuzo Palm, the recent acquisition of several forms of technology ranging from new machines, processing, and new marketing styles have a great lead to better customer-oriented products and services, thereby creating a loyal customer.

Also, the study revealed that there is a perceived influence of the acquisition of new technology on customer loyalty at Anuzo palm Kernel oil in Enugu. With the acquisition of machines in the organization, there comes a new method of processing products. Such a method included processing units. This indeed has resulted in increased customer purchase as the precision and speed to which products are produced entice

and make customers buy again later (repeat purchase).

6. CONCLUSION

The adoption and utilization of new technology in Anuzo Palm over the years have seen a significant improvement in the organization's performance. The employees of the organization, therefore, see it as a medium towards effective management and consistent delivery of services to customers which in turn brings about repeated purchases and loyalty from the customers.

7. RECOMMENDATION

Based on the findings of the study, the following are recommended.

The management of various palm firms should consistently sort for new technology that could improve the productivity of the organization thereby creating loyal customers.

The management should also sort for a technological strategy that could improve their production process to enable faster production with high standards.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1. Abey F. Management concepts & factors affecting organizational change; 2015. Available: www.mbaknol.com/management-concepts/factors_affect_organizational-change
2. Panimalar M, Kannan K. Study on employee perception towards effectiveness and impact of the environmental management system at Tamil Nadu Cooperative Textile Processing; 2013.
3. CAHRS. Perception is the reality: How employees perceive what motivates HR practices affects their engagement, behavior and HR practices affect their engagement, behavior and performance. Center for Advanced Human Resource Studies; 2011.
4. Lilly JD, Durr DW. Technology changes at work and employee reactions: The role of leader behavior. Human Systems Management. 2012;31:193-201.
5. Organ O. Organizational citizenship behavior: The good soldier syndrome. Massachusetts: Lexington Books; 1982.
6. Haddad CJ. Employee attitudes toward new technology in a unionized manufacturing plant. Journal of Engineering and Technology Management. 1996;13(2):145-162.
7. Agboola MG, Akinbode M, Segun-Adeniran C, Dibia PI, Oloruntoba A, Dinyain T, Fabunmi TJ, Funsho T, Akindeand OA, Betek CM. Technology usage and employee behaviour: Controversies, complications and implications in the Nigerian business environment. International Conference on Energy and Sustainable Environment. Earth and Environmental Science. 2019;331:0120311. DOI: 10.1088/1755-1315/331/1/012031
8. Hamon T. Organizational effectiveness as explained by the social structure in a faith-based business network organization; 2003.
9. McCarthy IP, Gordon BR. Achieving contextual ambidexterity in R&D organizations: A management control system approach. R&D Management. 2011;41(3):240-258.
10. Andriopoulos C, Lewis MW. Exploitation-exploration tensions and organizational ambidexterity: Managing paradoxes of innovation. Organization Science. 2009;20(4):696-717.
11. Brix J. Ambidexterity and organizational learning: Revisiting and reconnecting the literature. The Learning Organization. 2019;26(4):337-351. Available: <https://doi.org/10.1108/TLO-02-2019-0034>
12. Gupta AK, Smith KG, Shalley CE. The interplay between exploration and exploitation. Academy of Management Journal. 2006;49(4):693-706.

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Peer-review history:
The peer review history for this paper can be accessed here:
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