Science Journal of Business and Management
2022; 10(2): 75-84
http://www.sciencepublishinggroup.com/j/sjbm
doi: 10.11648/j.sjbm.20221002.13
ISSN: 2331-0626 (Print); ISSN: 2331-0634 (Online)

Customer Disconfirmation and Produce Wastage on Tomato Value Chain in Nigeria

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To cite this article:
Eshiett Idongesit Oto, Eshiett Oto Eyamba, Uwhubetine Godfrey Onajite. Customer Disconfirmation and Produce Wastage on Tomato Value Chain in Nigeria. *Science Journal of Business and Management*. Vol. 10, No. 2, 2022, pp. 75-84. doi: 10.11648/j.sjbm.20221002.13

Received: February 26, 2018; **Accepted**: March 21, 2018; **Published**: May 7, 2022

Abstract: The study investigates customer disconfirmation on product wastage in the line of tomato value chain. the management of harvested produce which is vital to the growth of a sustainable tomato value chain in Nigeria. Value Chain management is a tool that drives industrial development and enhances national food security. It is the focal point of this work to assess the effective management of tomato produce waste in Nigeria. This research is designed to investigate whether provision of efficient transportation facilities, good storage facilities and promulgation of enabling legislation and policies that will impact positively on the value chain in Nigeria. Disconfirmation theory was adopted in evaluating the gap between customer perception and expectation within the framework of tomato value chain. The study was conducted using primary data and the use of questionnaire in gathering information. Data was analyzed and the outcome of the regression analysis and ANNOVA showed the calculated p value of 0.000 is lower than the 0.05 alpha levels of importance. The study reveals that there is a relationship between efficient management of produce and the derivable benefits of tomato produce. Sequel to the results obtained, the recommendations as well as conclusion derived from the discovery of the study hold implication for industry operators on key areas of sustainable value chain management styles.

Keywords: Value Chain, Produce, Waste, Region, Small Scale Farmers

1. Introduction

Nigeria is one of the countries in sub Saharan Africa with an estimated population of over 180 million people based on the 2006 population census, it has a growth rate of approximately 5.7% per annum, a medial economic growth rate of 3.5% per annum in the last five years, the countries worldwide position in tomato production is known as the 16th major tomato producing nation in the world, with a relative productive capacity and prospects to spearhead tomato production worldwide in terms of exports [6]. Tomato is a seasonal crop that is mainly planted in the northern part of Nigeria with huge produce yield, due to the good weather condition and limited rainfall. There is a high level of demand for the product in Nigeria and a possibility of an enlarged market in sub Saharan Africa and beyond. Tomato production in Nigeria as at 2010 was about 1.8 million metric tons, which was adjudged to be about 68.4% of total productive capacity in West Africa, 10.8% of the total yield in Africa and 1.28% of world output [6, 24].

Tomato produce is consumable, usually, red berry-type fruit of Solanumly-copersicum frequently known as a tomato plant, which is a part of the nightshade group, Tomato breed emanated from Central and South America. The various diversities of tomato are widely cultivated, sometimes in green houses in temperate regions of the world. Tomato has a feeble trunk which spreads and creeps around on the earth surface all around. It is continual all the year round in nature, it is also cultivated yearly in cooler climatic conditions. The average tomato measures about 100 grams, its native habitat is Mexico, from which it outspread all over the world followings. It could be consumed in many ways depending on the culture and tradition of the people.

Disconfirmation is the pre conceived perception of customers' expectations of product/service benefit before the

product is consumed. This is the assumption made by the customer at the point of choice making on product to consume. At the point of actual consumption of product/service, the customer makes comparison with prior expectation s. [39]. It is very common for customers to make comparison between the gap in perceived product expectation and perceived product performance performances, this process is disconfirmation [38].

Meanwhile, Nigeria has one of the largest markets for tomato produce; but the facility for processing tomato product is limited or in some cases not available at all [15, 19]. The resultant effect is a situation where all manner of imported tomato produce is dumped in the market. At present, a significant percentage of tomato is wasted due to lack of good roads to transport these products to where the demand for it is high, and lack of improved irrigation facilities also reduces the total yield that could be made available for local consumption and export.

In recent times, there is a devastating pest known as killer tomato pesto Tuta Absoluta attacking farms in northern Nigeria in places like; Kaduna, Jigawa, Kano, Kebbi, Plateau and Katsina States. Experience by local farmers in regions where tomato is grown reveals that the pest is very difficult to control because it has the ability to resist pesticides and can destroy a whole tomato farm within 48 hours due to its high mutation capacity [32]. This inherently leads to scarcity of the product especially as it is a seasonal product.

1.1. Statement of the Problem

Value chain development has almost become a magic formula for sustainable agricultural investment. An ideal agricultural value chain should consist of various tasks that could make up supplementary inputs to anticipated output, commencing with the point at which raw material is obtained, work in progress, storage, transportation and how the product reaches the end users. In the case of tomatoes production in Nigeria, production, processing and distribution is quite a challenge in getting the desired value chain drivers that could lead to end user satisfaction as well as sustainable industrial development of the sector. This study evaluates the various agricultural policies affecting tomatoes production and its market in order to determine if policies or other institutional barriers are hindering the full actualization of tomatoes value chain in the region and the entire country at large.

The effect of poor infrastructural facilities such as transportation system during harvest seasons is seen as one of the root causes of produce wastage, and it also contributes to a greater extent a negative impact on the expected tomatoes value chain. In Northern Nigeria where tomatoes are farmed for instance, most farm centers where agricultural produce come from are cut off from the city center where the customer resides, this lead to mass wastage of tomatoes produce especially during the seasons when these produce are harvested.

Moreover, lack of good storage facilities affects the farmers and discourages the farmers from increasing their productivity due to anticipated waste of tomatoes produce (a common site) during harvest seasons. This is one of the major disincentives that negate effective value chain process for tomatoes in Northern Nigeria.

The essence of this study is to enhance a holistic view on the need for an enhanced tomatoes value chain that will eliminate produce wastage during harvest season and provide to some extent employment opportunities to our army of unemployed youths, as well as guarantee a sustainable and formidable food security system for the country.

1.2. Study Objectives

The focal point of this study is to examine the need for effective tomatoes value chain in Nigeria.

The defined purpose of this work is listed below:

i. Determining the impact of poor transportation resulting in produce wastage on tomatoes value chain in Nigeria.
ii. To ascertain how lack of good storage facilities could affect the tomatoes value chain in Nigeria.

1.3. Research Questions

The relevant research questions that this study endeavors to find answers to include the following:

i. How does transportation system affect produce wastage in the value chain of tomatoes in Nigeria?
ii. What is the effect of storage facilities on produce wastage in tomatoes value chain in Nigeria?

1.4. Research Hypotheses

The research hypothesis for this study presented in form of null hypotheses.

Ho_1 Poor transportation system has no impact on effective value chain of tomatoes in Nigeria.

Ho_2 Ineffective agricultural policies have no impact on effective tomatoes value chain in Nigeria.

Ho_3 Lack of good storage facilities has no impact on effective tomatoes value chain of Tomato produce in Nigeria.

Tomato in Nigeria is an important part of the food culture, hence it is in very high demand and it is worth mentioning that any form of scarcity of the produce, could be of adverse effect to the economy of the country. The recent occurrence of tomato pesto in the country has led to more than 500% increase in the price of these produce, which has led to scarcity and hard time for both the farmers and the consumers since tomato is a very important aspect of the food culture of the people.

However, there exist few empirical researches undertaken in Nigeria, as far as tomato value chain is concerned. This study aims at investigating the effect of poor storage facilities as well as ineffective transportation system as it affects value chain of tomato produce waste in Nigeria.

2. Literature Review

2.1. Concept of Value Chain Management

The idea of Value Chain was developed by [25], who

defined it as set of tactics used to strengthen competitive edge of an organization by discovering and analyzing the functions and the correlations among all tasks in the production process. However, Porter did not present a clear cut definition for the term derivable benefit of value chain management [25, 15]. Hence, derivable benefit of value chain management is the strategic planning and meshing of order [3, 22], provisions and derivable benefit resolutions from the point of disposal to purchases [45] and other functional processes [5, 24, 36, 39, 45].

According to reports [12], Value chain is defined in terms of series of goal driven synergy of output components that produce saleable goods and services from its inception to conclusive stage. This process comprises undertakings such as the blueprint, output procedures, merchandizing logistics and other supplementary systems that lead to the end user [18]. There are business undertakings in which derivable benefits could be incorporated within an individual organization or cleave among diverse organizations and different regional environments [18].

Value chain is defined as a perpendicular association of tactical meshing amongst diverse units of firms within the same industry. Supply chain therefore, is a perpendicular network of different combination of various productive factors and its resultant output, and it ability to address end users needs and wants [9].

The term value chain comprises of all benefit driven processes needed in the activities, required in the creation, usage and discarding of such products [28]. This term explains comprehensively both the inputs and output used in the production process [14]. Example of benefit driven encompasses the inclusion of various levels of typical chain includes all of a produce development, beginning from inception, work-in-process, delivery to end users [20]. Other researches in Value Chain Management includes [21, 13, 1] commercial enterprises. [2] is similar to Porter's preliminary work on benefit driven activities.

Value chain allows commercial enterprises to react to aggregate demand through the process of linking production, processing and marketing activities to the total request for the product. This involves the various steps that necessitate the transformation of raw materials into a finished product or service for an end consumer, where each step along the way adds to a product's value. It specifically focuses on how value is added rather than how raw materials get from one point to the other.

2.1.1. Benefits of Value Chain

Specifically, a clear demonstration of the fact that benefit driven Management is a robust and well thought out approach used by business concerns to reposition their business [22], by analyzing consumers' needs and wants, industry rival proficiency, and also networking and consolidating all value generating activities, the overall processes of production [25, 17]. From the foregoing, administering Value Chain Management enable organizations to improve upon their proficiency and competitive edge [25, 16], this will enhance the purpose of reducing production overhead and increasing overall profitability and increased share of the market [17]. The benefits include the following:

(i) Improvement and strengthening of outsmarting tactics for the organization.
(ii) Value Chain Management concept enhances the process of analyzing set task, objectives as well as accomplishments as predetermined by industrial operators [26].
(iii) Value Chain Management makes possible efficacious solutions in product transaction [21].
(iv) It enhances the revitalization of the business strategies evaluation and implementation.
(v) Value Chain Management concepts reinvent the traditional supply chain management system to enhanced the confidence of Agricultural practitioners on the Value Chain Management (VCM) application.

2.1.2. Different Types of Value Chains

According to Gereffi & Domnald, there is a clear divergence amongst the four major forms of value chains. [7]

1) Firstly, strategic managerial value chains as one in which strategic managerial functions are carried out by the buyer at the peak of the chain; and having characteristic that are effort driven and venture-involved in the production of consumer goods.
2) Secondly, the producers propelled value chain which makes use of key industrial technologies that is responsible for synchronizing the diverse links. It is therefore imperative to state that producers are seen as taking key leadership roles that enhances competence and proficiency for their suppliers and the end users.
3) Thirdly, manufacturer-prone commodity value chains; This explains larger forms of chain systems as often observed in multinational concerns, the manufacturers play an intermediating function in harmonizing production systems. This is attributable to some forms of capital-and technology-driven concerns such as; Car Manufacturing, Robotics, airplanes, computers, and heavy machinery and plants.
4) Finally, end users' commodity value chains; End users chains are those productions that allows for large scale retailers, marketers, and branded producers to play key functions in positioning a fragmented manufacturing frameworks in different countries where the products are exported.

2.1.3. Benefits of Agricultural Value Chain

The term agricultural value chain does not have a generally adopted expression but basically applied to agricultural development in developing countries, and it refers to the entire product delivery needed in the agrarian sector. These includes; production, work-in-process, warehousing, and logistics solutions. Agricultural produce derivable benefit is based on an integrated system which allows for differentiated products, risk management, information needs and interdependent farmers. Agricultural value chain has its benefits which includes; massive jobs creation, income generation, produces food

production which enhances social stability, poverty alleviation, promote economic growth and create wealth through agricultural growth.

2.2. Concept of Customer Disconfirmation

The disconfirmation concept is derived from various literature developmental by marketing scholars with the key concept of customers' satisfaction experience before and after consumption of a product [40, 50]. It further explains the gap between customer expectation and post consumption experience [50], and the need for providers of product/service to satisfy the customer based on end-users' feedback repots [50, 57]. The process of measuring satisfaction of customers based on Expectation–Disconfirmation (ED) paradigm is sequel to comparing customers' perception/expectation with the actual performance of such product/service [60]. Diversities in literature has resulted in ED application in customers' previous experience of satisfaction [45], service experience in public administration [47, 60], extraneous satisfaction of customers [46, 61, 62]. Other studies examined underlying issues involved in determining the satisfaction of customers, [40, 51, 55] and made recommendations for the collection of citizens' perceptions of satisfaction [41, 42, 56], determining customer relationship using a single model approach [44, 52], and regression mode [53].

In retrospect, this study is adapting the ED model in examining the reaction of customers in Nigeria that have been used to imported rice brands could adjust to locally produced brands; taking cognizance of their previous consumption experience of polished rice and their expectation on local rice brands based on the performance experience at the point of consumption.

2.2.1. Customer Expectation

Customer expectation has a higher ranking in the discourse of ED model. Trends in previous experiences of customers is a determining factor in on their anticipation of future product performances whether higher or lower expectation. Other literatures [44] have argued that customer expectation should be based on set objectives of what and how service performance are should be evaluated [43, 40], evaluating expectation based on intrinsic and extrinsic factors like product quality, customer engagement marketing and perceived product performance [50]. Standardized expectation on product/service delivery [44]. Extrapolating from the above premise, customer expectation on rice value chain management in Nigeria; is a clarion call to providers of product/services to re-strategize on how best to position their products in orders to satisfy the expectation of their customers; whenever the customer juxtaposes their product performance with imported rice brand.

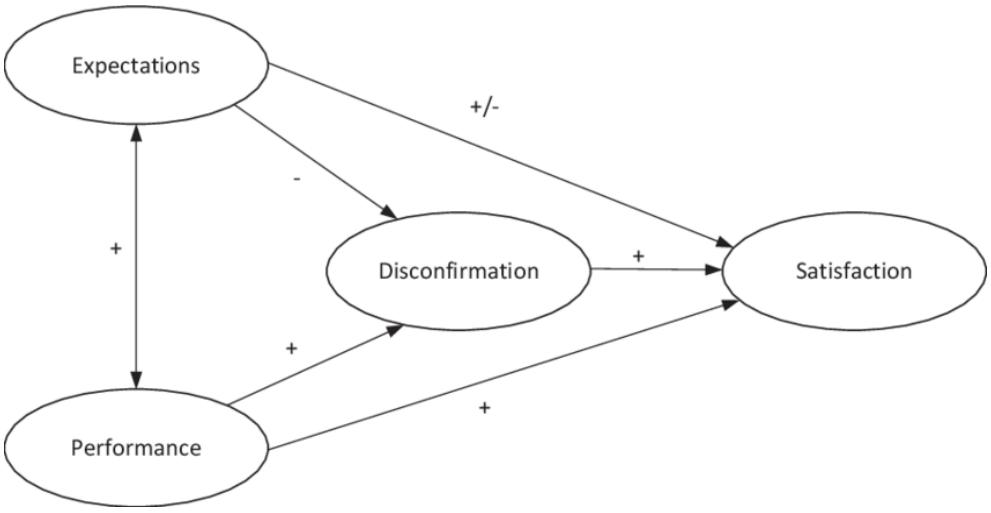


Figure 1. *Expectancy-Disconfirmation Model.*

Adapted; Van Ryzin (2004), in Zhang, J, Chen, W, Petrovsky, N; & Walker, R. M. (2022). The Expectancy-Disconfirmation Model and Citizen Satisfaction with Public Services: A Meta-analysis and an Agenda for Best Practice.-147-159.

The adaptation of this model is in Figure 1 explains the behavioral aspect of the consumer in a combined expectation-performance process [63, 40]. To determine the level of customer satisfaction-dissatisfaction within an ED model. Expectation [48, 49] provides the basis for intrinsic and extrinsic factors that determines customers' satisfaction [50]. In essence, an acceptable disconfirmation precedes satisfaction of customer, while an unacceptable disconfirmation leads to dissatisfaction of customer [49, 54]. Hence increasing level of disconfirmation in the consumption of local rice brand s in Nigeria is the resultant effect of the existing gap between expectation and performance of the product.

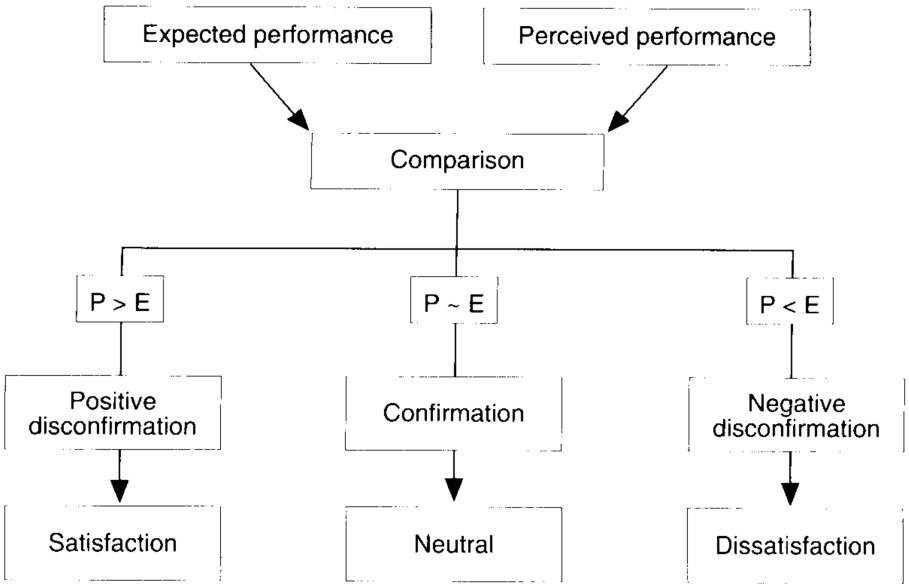
2.2.2. Disconfirmation–Expectancy, Customer Engagement and Word of Mouth (WOM)

Current researches in behavioral sciences have shown that; positive disconfirmation – expectancy is the key driver of firms internal and external capabilities. According to [68], in the 21st century there is ability of business organization to engage their customers, thereby creating a unique buyer-seller dyad that transforms the

customer to become firms' brand advocates [70], without expecting any form of benefit in return [71]. The key exchange tool used by customers in advertising firms' brand is Word –of –Mouth advertising [67, 64]. Whenever customers are satisfied with a particular product offering experience, they become loyal to such brand and tell family, associates and friend to patronize same brand [64]. Conversely where customers experience results in negative disconfirmation expectancy, they will also share their inauspicious experience with family, friends and associates about the product brand [66]. Disconfirmation-expectancy is often based on the outcome of product consumption experience based on expected product performance [69]. Previous research has proven that the ability of firms to manage the outcome of product consumption experience which could mitigate the drive for customers to share their experiences resulting from either positive disconfirmation-expectancy or negative disconfirmation-expectancy [65, 70].

2.3. Theoretical Literature - Disconfirmation Theory

The Disconfirmation theory in figure 1: explain that the process of satisfaction is synonymous with the quantum and requirement of the disconfirmation encounter between when service delivery and customer expectations is juxtaposed [11]. Other scholars have sited that the meta-analysis of disconfirmation model is the main determinant of customer satisfaction [35, 11] in an updated proposition posited that "The key ingredients in ascertaining that the customer was assuaged or displeased by experience; in the process of consuming a product is satisfaction).



Adopted from the Disconfirmation Theory: Ekinci,. and Sirakaya. (2004).

Figure 2. *Disconfirmation Theory.*

Disconfirmation theory ranks amongst one of the most accepted satisfaction theories [30, 34], but other scholars argued that when customers expected a higher level of satisfaction, but received a lower level of satisfaction in product experience, the resultant disparity between expectation and experience is explained as cognitive dissonance [36, 4]. Satisfaction or dissatisfaction is the instant outcome of customer experiences in the process of product consumption, and this is evaluated by juxtaposing perceptions and expectations [36]. Other scholars have also posited that in examining the disconfirmation theory, the uppermost issue should be 'how the product/service was delivered' and not the observable disparity between expectation and performance by the customer [11].

In comparing the levels of customer expectation, the pre and post experience of the customer determines if the customer had positive disconfirmation or negative disconfirmation [11]. Positive or negative disconfirmation is obtained when the anticipated perception of the customer is confirmed or contradicts with expectation [31, 8, 33]. The main purpose of adapting disconfirmation theory in this study is to access customers' level of disparity between 'expected performance' and 'perceived performance' on locally processed rice in terms of product quality, price and brand image; when compared to imported brand of the same product.

3. Methodology

This study utilizes the survey research design, the technique allows for the use of fresh ideas and insight which helps to explain what is seen without internal manipulation on how certain variables inter-relates. The population for this study consists of 200 small scale farmers in Northern Nigeria. Simple random sampling method was used in the study. [27] posited that Simple random sampling could be used when valid and easily attainable sampling structure that shows the total population of the study.

Sample Technique and Sample Size

The sample size of the study is 133 respondents. This is derived from the Yamane table of determining sample size. However, 145 questionnaires were administered out of which 124 questionnaires which is about 86% were retrieved and suitable for the study. The simple sampling random were appropriate for the study as according to [27] Random numbers permits a researcher to select a sample without form of bias. The selection of the sample could be said to depict the whole population of the study.

Furthermore, the simple random sampling is selected based on the prefix of a well spread out population for samples greater than a few hundred cases under study. The rationale for this procedure was to ensure fair representation of responses, the goal of the interview was to obtain in-depth information about the respondent opinion on the effect of produce wastage on tomato value chain in Nigeria.

Data Presentation and Analysis

Data collected from the field were utilized for the analysis using the illustrative data such as mean; standard deviation and standard error were applied for the evaluation of the research questions while hypotheses testing were carried out using regression analysis. The hypotheses were tested at a 0.05 level of relevance. At this point, exclude the negative hypothesis for test with possibility value less than 5% (0.05) and establish that the data are relevant. Hence, assume 0.05 when possibility value is higher and it could be established that there is no all inclusive statistically relevance.

Reliability and Validity of the Study

In minimizing the possibility of error in response to data collected, the validity and reliability of data collected were given due consideration [27]. For the research instrument to be reliable, Cronbach coefficient alpha of 0.70 or higher were used to show the reliability of the research instrument [10, 23]. The researcher made use of responses with the help of questionnaire and interview based on the convenience of respondents only and not on researcher's personal convenience. However, to ascertain the content validity, the researcher relied on feedback from respondents through questionnaire personally administered to respondents in order to clarify grey areas.

To ensure increased validity, the researcher sought expert opinion from renowned professionals in agriculture and marketing derivable chain benefits.

4. Results

4.1. Hypothesis One

The null hypothesis states that Poor transportation system has no impact on tomato value chain Nigeria.

Table 1. *Regression Analysis on the effect of produce wastage on tomato value chain in Nigeria.*

Model Summary[b]										
Model	R	R Square	Modified R Square	Standard. Error of the Approximation	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.502[a]	.541	.538	10.26888	.041	16.480	1	133	.000	1.671

R=0.502, R square=0.541, Adjusted R square= 0.538,

a. Predictors: (Constant), Poor Transportation facilities

b. Dependent Variable: Value Chain.

The results of the Regression analysis on table 1, shows that poor transportation facilities have significant impact on Tomato Value Chain. Reason being that the computed level of Significance shows a value of 0.000 is below the 0.05 alpha levels. The model summary also showed that the impact of poor transportation facilities on tomato value chain is very high as the computed Regression R estimate of 0.502, the Regression Square estimate of 0.541 and Adjusted R ratio estimate is 0.538 are individually greater than the standard limit of 0.4000. This shows that tomato value chainis significantly impacted upon by the level of poor transportation facilities. Therefore the null hypothesis which states that poor transportation facilities have no significant impact on tomato value chain in Nigeria is hereby rejected.

Table 2. *ANOVA Table on Poor Transportation Facilities.*

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1737.854	1	1737.854	16.480	.000[b]
	Residual	30809.103	133	105.450		
	Total	32546.956	134			

F=16.480, p=0.000

a. Dependent Variable: Tomato Value Chain

b. Predictors: (Constant), Poor Transportation Facilities.

The table assesses the statistical relevance of the outcome as shown in table 2. In this analysis, the postulation denotes that multiple R in the population of the study is equivalent to .000. The representation in this study attains a data relevance (Sig = .000, this shows that p< .0005) [29].

4.2. Hypothesis Two

The null hypothesis states that that Lack of good storage facilities has no impact on effective tomatoes value chain in Northern Nigeria.

Table 3. *Regression Analysis on the effect of produce wastage on tomato value chain in Nigeria.*

Model Summary[b]										
Model	R	R Square	Modified R Square	Measured Error of the Approximation	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.448[a]	.402	.405	10.47305	.502	.902	1	133	.343	1.628

R=0.448, R square=0.402, Adjusted R square= 0.405, P=003

a. Predictors: (Constant), Storage Facilities

b. Dependent Variable: Tomato Value Chain.

The results of the Regression analysis on table 3, shows that storage facilities has impact on tomato value chain. This inevitably portrays that the computed Sig (p) estimate of 0.003 is below the 0.05 alpha level. The model summary also showed that the impact of storage facilities on tomato value chain is very high as the computed Regression R estimate of 0.448, the Regression Square estimate of 0.402 and Adjusted R ratio estimate of 0.405 are individually exceeds the standard limit of 0.4000. This shows that tomato value chain is significantly impacted upon by the level of storage facilities, hence, the null hypothesis which emphasizes that storage facilities has no significant impact on tomato value chain Nigeria is hereby rejected.

Table 4. *ANOVA Table on Storage Facilities.*

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	98.912	1	98.912	6.902	.003[b]
	Residual	32448.045	133	109.685		
	Total	32546.956	134			

a. Dependent Variable: tomato value chain

b. Predictors: (Constant), Storage Facilities.

The table assesses the statistical relevance of the outcome as shown in table 4. This analysis has a negative postulation that multiple R in the population is equivalent to .000. The representation of this study attain the data relevance (Sig = .003, this shows that p< .0005).

5. Discussion

The outcome of the study reveals that availability of sustainable transport facilities could reduce produce wastage and increase Tomato Value Chain Nigeria, and Provision of good storage facilities is a fundamental factor in curbing produce wastage and enhancing an efficient Tomato Value Chain in Nigeria. The findings are analyzed based on the two regressed hypotheses.

Firstly, the impact of poor transportation facilities on tomato value chain is very high as the computed Regression R estimate of 0.502, the Regression Square estimate of 0.541 and Adjusted R ratio estimate is 0.538 are individually greater than the standard limit of 0.4000. This denotes that tomato value chain is significantly impacted upon by the level of poor transportation facilities.

Furthermore, storage facilities inevitably have direct impact on tomato value chain, this portrays that the computed Sig (p) estimate of 0.003 is below the 0.05 alpha levels. It also reveals that the impact of storage facilities on tomato value chain is very high as the computed Regression R estimate of 0.448, the Regression Square estimate of 0.402 and Adjusted R ratio estimate of 0.405 individually exceeds the standard limit of 0.4000. This reveals that tomato value chain is significantly impacted upon by the level of storage facilities.

6. Conclusion

This research study was conducted on the effect of produce wastage on Tomato Value Chain in Nigeria. The study was conducted based on responses from small scale farmers in Northern Nigeria who were the primary respondents of this study. The result was collected through structured questionnaires and interview investigating on three broad areas namely; effect of produce wastage on Tomato Value Chain in Nigeria. The study looks at the effect of poor transportation facilities, lack of good storage facilities and ineffective legislations and government policies that could enhance tomato value chain in Nigeria. From the foregoing, the results of the study showed that produce wastage could be minimized through the provision of efficient transportation system, good storage facilities and promulgation of enabling legislation that will enhance tomato value chain in Nigeria.

7. Recommendation

The result of the study suggests that availability of effective storage facilities as well as improved transportation infrastructures could help curb tomato produce wastage increase its Value Chain Nigeria. Hence, stakeholders (farmers, transporters, extension workers, ministries and Agricultural policy makers) should take proactive steps in addressing all the highlighted problems outlined by the author's in the study to achieve the full benefit of an enhanced Tomato Value Chain management.

To actualize the dream of addressing the mammoth political,

socio-cultural and economic problems resulting from unemployment, youth restiveness, widespread poverty and rural urban drift, enhancing an effective tomato value chain could lead to improved economic fortune for the country that could help address to some extent the highlighted problems in the study.

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