



## THE AFTERMATH OF A DEMONETISATION EXERCISE: A COMPARATIVE EVALUATION OF THE RETAIL SECTOR

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**Abstract:** *The surprise announcement of the demonetisation exercise of the largest denominations brought about a major transformation in the economic environment. It immediately interrupted and took a hit, to a considerable extent, on the cash-based businesses in the country. The impact on retailing was no exception. It is gradually returning to normalcy as customers and retailers are increasingly adapting to making payments digitally in the post-demonetisation period. Therefore, it is imperative to comparatively explore and analyse the extent of the impacts of both periods on the retail sector. This will definitely provide additional discernments into the phenomena. Hence, this study has been undertaken among 100 respondents in some selected places in Allahabad. The data collected using survey questionnaires with the convenience sampling technique were statistically analysed with SPSS. The research hypotheses formulated were tested using the percentage analyses, the Cronbach's alpha, correlation analyses and ANOVA. The results confirm that order quantities, sale volumes and profit volumes are significant and have positive relationships. However, their mean squares differences were found to be in insignificant positions. On the brighter side, these variables are being increased gradually in the post-demonetisation period. Finally, it is recommended that the manufacturers should revise their promotional strategies to help boost the customers' patronage of the retailers' merchandise since the economy is now reviving from the setback.*

**Keywords:** *Demonetisation, Post-Demonetisation, Retail Sector, Order Quantities, Sale Volumes and Profit Volumes.*

### 1. INTRODUCTION

The Government on Tuesday, 8<sup>th</sup> November 2016, announced the demonetisation of both the Rs. 500 and Rs. 1000 notes respectively. With effect from the announcement, these notes ceased to be legal tender. That is, the old units of these high-value currency notes



were retired and to be eliminated from circulation. They were to be replaced gradually with new notes whereas the smaller denominations were not withdrawn. These old banknotes were to be deposited or exchanged in the banks by December 30<sup>th</sup>, 2016. At the same time, limitations were placed on the bank deposits and withdrawals per day. This brought a major transformation in the economic environment and accompanied with short, medium and long-term effects. Inconveniences were brought upon people because they had to stand in queues to withdraw cash from the ATMs and the Banks. The following are the major reasons behind the action;

- combating corruption
- eradicating counterfeit notes in the system
- stopping the usage of higher currency note denominations for financing terrorism
- eliminating the accumulation of black money and fighting tax evasion
- promoting a cashless economy

However, this demonetisation exercise is the third of its kind. It has happened and has been executed twice. The first was done in 1946 and the second was also done in 1978 for multiple reasons.

### **1.1 The Demonetisation Period versus Retailing**

The Demonetisation exercise immediately interrupted and took a hit, to a considerable extent, on the cash-based businesses in the country, including; automobiles, travel and tourism, financial institutions, real estate, transportation, entertainment, healthcare and also, the impact on the retail sector was no exception.

Due to the short-term cash crunch created, as a result, significant difficulties among retailers and their customers were conspicuous. With the dependency and propensity to pay via cash by consumers during shopping and less cash in hand, consumers' purchases of merchandise dropped drastically, hence, retailers' sales stumbling simultaneously.

Small traders and vendors operating in the unorganised retail sector, including; roadside vendors, mom-and-pop or kirana stores, stopped accepting the demonetised currency notes leading to a disruption in the consumption patterns of consumers and their sales dwindling. The working/operation hours of retailers were also affected. Organised retail sector such as grocery stores, department stores and hypermarkets also experienced mild sales reduction



unlike the unorganised retail sector because of the acceptance and usage of card payments/plastic money during the period. The distribution channel was jeopardised during this period. Distributors and wholesalers had no other option than to turn to extending credit periods to retailers as the cancellations of their orders from the retailers were staggering. The cancellations were justified since retailers' shoddy goods were affected.

### **1.2 The Post-Demonetisation Period versus Retailing**

The Government has commenced a re-monetization exercise. Accordingly, both the organised and some sections of the unorganised retail sectors have suddenly started using card payments to handle their daily transactions with customers. Generally, there is an upsurge in online transactions and many retailers are registering on portals offering digital payment services. The economy, encompassing all the other service sectors are resuscitating after the short-term economic impasse.

The retail sector is also gradually returning to normalcy as customers and retailers are increasingly adapting to making payments digitally. Similarly, the distribution channel has bounced back and wholesalers and distributors have started accepting card payments. Undoubtedly, this audacious exercise by the Government is likely to have benefits for the economy in the long-run.

### **1.3 Statement of the Problem**

As the demonetisation exercise had a prompt impact on the retail sector because of its cash-dependency, some retail outlets were affected severely and experienced a fall in their sales, profits and orders. Contrarily, several others also capitalised on the situation and elevated their entire operations in the event of its announcement.

Thus, from a broader perspective, it can be emphatically expressed that the impacts of both the demonetisation and the post-demonetisation periods on retailing are evident. However, statistically, its magnitude from the comparisons of these two periods, somewhat, are in evident. To avoid guesstimates, a juxtaposition of the two periods would be relevant as their effects on retailers' sales, profits and orders are explored.

### **1.4 Rationale of the Study**

From the problem statement presented and explained above, it is, therefore, imperative to comparatively explore and analyse the extent of the impacts of the two periods on the retail



sector and to provide additional discernments into the phenomena. This may provide a guide to the re-monetisation exercise that is being followed. Manufacturers, distributors, wholesalers and retailers, as a result, will have clear insights in the new cashless economy. In conclusion, research hypotheses are constructed and tested statistically with the respective results presented herein. Managerial implications and limitations are also presented.

### **1.5 Research Objectives**

- To analyse the impacts of the demonetisation and the post-demonetisation periods on retailers' sale volumes.
- To analyse the impacts of the demonetisation and the post-demonetisation periods on retailers' profit volumes.
- To analyse the impacts of the demonetisation and the post-demonetisation periods on retailers' order quantities.

## **2. REVIEW OF LITERATURE**

This section presents the review of literature from recent studies on the topic; the effects of demonetisation on the retail sector in the country. The Authors, in their respective studies identified both favourable and adverse effects including; creating a cashless country, substantial increases in demand in the long-run owing to the usage of plastic money, impact on supply chain management, effect on demand and a deflationary effect due to the lower money supply.

Demonetisation, as defined by Investopedia is the act of stripping a currency unit of its status as legal tender. It occurs whenever there is a change of national currency: The current form or forms of money is pulled from circulation and retired, often to be replaced with new notes or coins. Sometimes, a country completely replaces the old currency with a new currency.

Demonetisation has impacted the retail industry due to a liquidity crunch (**Chauhan, 2016**). **Singh and Singh (2016)** disclose that while sectors with linkages to the unorganised economy are likely to be affected, technology and financial services are expected to gain in the medium to long term. They, therefore, presented a summary of sectors which they expected to be impacted either positively or negatively. These are:



**Table 2.1: Impacts of Demonetisation on the Retail Sector**

Positive Impacts	Negatives Impacts
E-commerce and Fin-tech	Agriculture
1) Payment gateways	Luxury goods
2) Cards	Real Estate
3) Mobile wallets	Commodities
4) Online retail	Traditional Retail
5) Net and payment banks	1) Consumer durables
6) E-marketplace	2) Consumer non-durables

**Source: Singh and Singh (2016)**

Secondly, according to a study by **Mali (2016)**, successful online retail stores in India like Flipkart, Amazon, Snapdeal, Shopclues and other online retailers either temporarily stopped offering cash-on-delivery services or put a cap on the maximum value of cash-on-delivery transactions. Such a move temporarily impacted the profits of businesses because cash-on-delivery is the most popular method of payment for shoppers in the country.

The companies instead encouraged consumers to adopt payments through debit and credit cards enabled by the point of sales devices carried by delivery personnel. This led to cancellations or clog logistics networks and thus, affecting the many orders which were in the pipeline to be delivered through cash-on-delivery (**Mali, 2016**). For FMCG majors, the way out seems to be extending the credit cycles. Wholesalers who are already low on cash have done the same to retailers and distributors are doing the same at the moment (**Chelladurai and Sornaganesh, 2016**).

In a similar study by **Rani (2016)**, the findings after analyzing the data were; wholesalers denied to extend the credit span of time, shopkeepers started Paytm and cheque facilities for consumers, 70% shopkeepers had to extend the credit facilities for consumers and span of credit time and also, items bought per customer 20% decreased.

In the event of its many adverse effects, **Jayasudha and Thangavel (2016)** posit that there is no doubt that demonetisation is a big move for an improved future of Indian economy. The impact was felt to a greater extent by small retailers and the unorganised retailing segment widespread on many streets across the country when compared to the organised retailing and malls (**Chauhan, 2016; Jayasudha and Thangavel 2016**).

It is further disclosed in the study that, initially the demonetisation effect on the market was painful but this also instigated the shopkeepers and consumers to adopt cashless means and internet banking to buy goods (**Rani 2016**). This revelation is similar to that of **Jayasudha**



**and Thangavel (2016)** who said that this will surely influence many more customers to start using plastic money in the long-term. Finally, **Singh and Singh (2016)** also supported these statements by suggesting that it is likely to reset spending patterns as this move represents indirectly a significant push towards a cashless economy.

### **2.1 Hypotheses**

- **H1:** There are significant relationships between retailers' sale volumes, profit volumes and order quantities.
- **H2:** There are significant differences between retailers' sale volumes, profit volumes and order quantities.

## **3. RESEARCH METHODS**

This quantitative research is established on mixed methods research as it employed both the analytical research and exploratory research designs. It utilises the analytical research design to make critical analyses of the primary data and the exploratory research design to explore the research questions and to determine the nature of the problem to gain new insights or have a better understanding of it.

The study was conducted in Allahabad city. The coverage of the study was specifically confined to the following four places; Mahewa, Ranbagh, Chowk and Civil Lines. These places are regarded as major commercial centres of the city. A 100 sample size was considered and the survey questionnaires were circulated among the respondents using the non-probability convenience sampling method. This was made up of only retailers, encompassing the organised and the unorganised, operating and located in these four places. Both primary and secondary sources of data were collected and analysed accordingly. Primary data were collected using questionnaires self-administered to the respondents and were complemented with secondary data sources from research articles and business reports and publications on the subject of demonetisation.

The designed questionnaire was divided into three parts, namely; parts A, B and C. Part (A) consisted of demographic questions. Part (B) consisted of questions centered on sale volumes, profit volumes and the volume of orders from wholesalers during the demonetisation period. Finally, Part (C) consisted of questions centered on sale volumes, profit volumes and the volume of orders from wholesalers in the post-demonetisation period. With the objectives kept in mind, and using SPSS version 17 for the analyses, the statistical tools applied to analyse the primary data and the testing of the hypotheses were



the percentage analyses, the Cronbach's alpha, correlation analyses and ANOVA.

## 4.0 RESULTS AND DISCUSSION

### 4.1 Demographics Profile of Respondents

Table 4.1: Demographics Profile of Respondents

Demographic Factors	Descriptions	Total (n=100)	Percentage Total (100%)
1. Gender	a. Male	76	76.0
	b. Female	24	24.0
2. Age	a. 18-26 years	13	13.0
	b. 27-35 years	16	16.0
	c. 36-44 years	39	39.0
	d. 45-53 years	29	29.0
	e. 54 years and above	3	3.0
3. Education Level	a. None	0	0.0
	b. Diploma	63	63.0
	c. Graduate	36	36.0
	d. Postgraduate	1	1.0
4. Marital status	a. Single	21	21.0
	b. Married	77	77.0
	c. Separated/Divorced	0	0.0
	d. Widowed	2	2.0
5. Position	a. Owner	58	58.0
	b. Manager	6	6.0
	c. Employee	36	36.0
6. Years in Operation	a. Less than 1 year	8	8.0
	b. 1-5 years	17	17.0
	c. 6-10 years	37	37.0
	d. 10 years and above	38	38.0
7. Total Number of Employees in the Business	a. 1-5	87	87.0
	b. 6-10	5	5.0
	c. 11-15	6	6.0
	d. 15 and above	2	2.0
8. Type of Retail Store	<b>Organised</b>		
	a. Grocery Store/Supermarket	28	28.0
	b. Departmental Store	8	8.0
	c. Hypermarket	2	2.0
	<b>Unorganised</b>		
	d. Roadside Vendor	5	5.0
e. Mom-and-Pop/Kirana Store	19	19.0	
f. Convenience Store	38	38.0	

Source: Field Data



The Table 4.1 above represents the demographic profile of the retailers included as the respondents of this study. According to the table, males are the majority of the respondents (76%), are found in the age categories of 36-44 years (39%), and are diploma holders (63%) and married (77%). Moreover, with regard to their position, 58% are owners of the retail stores, 38% are found in the years in operation category of 10 years and above and the total number of employees in the business is 1-5 (87%). Finally, the category with the highest number of type of retail store is convenience store with 38%.

#### 4.2 Reliability Statistics

**Table 4.2: Cronbach's Alpha**

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.886	.929	23

Cronbach's Alpha Coefficient was tested to determine the reliability coefficient for all items included in the data collection instrument. The value of Cronbach's Alpha Coefficient is 0.886. This value is very high and it meets the minimum acceptable level of 0.7. It, therefore, confirms that the data is satisfactory and it can be used for analytical purposes.

#### 4.3 H1: There are Significant Relationships between Retailers' Sale Volumes, Profit Volumes and Order Quantities

**Table 4.3: The Relationships between Sale Volumes, Profit Volumes and Order Quantities in the Demonetisation Period**

		Correlations		
		Sale Volumes	Profit Volumes	Order Quantities
Sale Volumes	Pearson Correlation	1	.315**	.397**
	Sig. (2-tailed)		.001	.000
	N	100	100	100
Profit Volumes	Pearson Correlation	.315**	1	.126
	Sig. (2-tailed)	.001		.213
	N	100	100	100
Order Quantities	Pearson Correlation	.397**	.126	1
	Sig. (2-tailed)	.000	.213	
	N	100	100	100

\*\* . Correlation is significant at the 0.01 level (2-tailed).



- The relationship between sale volumes and profit volumes is positive. This is because;  $r(98) = 0.315, p = .001., p < .01$  (correlation is significant at the 0.01 level).
- Secondly, the relationship between sale volumes and order quantities is also positive. This is because;  $r(98) = 0.397, p = .000., p < .01$  (correlation is significant at the 0.01 level).
- Finally, the relationship between profit volumes and order quantities is also positive. This is because;  $r(98) = 0.126, p = .213., but p > .01$  (correlation is therefore insignificant).

**Table 4.4: The Relationships between Sale Volumes, Profit Volumes and Order Quantities in the Post-Demonetisation Period**

		Correlations		
		Sale Volumes	Profit Volumes	Order Quantities
Sale Volumes	Pearson Correlation	1	.568**	.819**
	Sig. (2-tailed)		.000	.000
	N	100	100	100
Profit Volumes	Pearson Correlation	.568**	1	.403**
	Sig. (2-tailed)	.000		.000
	N	100	100	100
Order Quantities	Pearson Correlation	.819**	.403**	1
	Sig. (2-tailed)	.000	.000	
	N	100	100	100

\*\* . Correlation is significant at the 0.01 level (2-tailed).

- The relationship between sale volumes and profit volumes is positive. This is because;  $r(98) = 0.568, p = .000., p < .01$  (correlation is significant at the 0.01 level).
- Secondly, the relationship between sale volumes and order quantities is also positive. This is because;  $r(98) = 0.819, p = .000., p < .01$  (correlation is significant at the 0.01 level).
- Finally, the relationship between profit volumes and order quantities is also positive. This as a result of;  $r(98) = 0.403, p = .000., p < .01$  (correlation is significant at the 0.01 level).

#### 4.4 H2: There are Significant Differences between Retailers' Sale Volumes, Profit Volumes and Order Quantities



**Table 4.5: The Significant Differences between Sale Volumes, Profit Volumes and Order Quantities in the Demonetisation Period**

**ANOVA Table**

		Sum of Squares	df	Mean Square	F	Sig.
Sale Volumes * DEMONETISATION	Between Groups (Combined)	19.778	3	6.593	8.095	.000
	Within Groups	78.182	96	.814		
	Total	97.960	99			
Profit Volumes * DEMONETISATION	Between Groups (Combined)	16.724	3	5.575	4.260	.007
	Within Groups	125.636	96	1.309		
	Total	142.360	99			
Order Quantities * DEMONETISATION	Between Groups (Combined)	46.750	3	15.583	187.000	.000
	Within Groups	8.000	96	.083		
	Total	54.750	99			

- It is evident from the above table that order quantities has the highest mean square difference of 15.583 and its F value is in a significant position with the significance level of 0.000.
- Sale volumes follows with a mean square difference of 6.593 and its F value is also in a significant position with the significance level of 0.000.
- Lastly, profit volumes scored the lowest mean square difference of 5.575 and its F value is also in a significant position with the significance level of 0.007.

All of the findings are significant because of their F values being in significant positions with their significance levels below 0.05.

**Table 4.6: The Significant Differences between Sale Volumes, Profit Volumes and Order Quantities in the Post-Demonetisation Period**

**ANOVA Table**

		Sum of Squares	df	Mean Square	F	Sig.
Sale Volumes * POST- DEMONETISATION	Between Groups (Combined)	10.710	3	3.570	2.524	.062
	Within Groups	135.800	96	1.415		
	Total	146.510	99			
Profit Volumes * POST- DEMONETISATION	Between Groups (Combined)	1.833	3	.611	.866	.462
	Within Groups	67.727	96	.705		
	Total	69.560	99			



Order Quantities *	Between Groups (Combined)	5.028	3	1.676	1.075	.364
POST- DEMONETISATION	Within Groups	149.732	96	1.560		
	Total	154.760	99			

- It is observed from the above table that sale volumes has the highest mean square difference of 3.570 and its F value is in an insignificant position with the significance level of 0.062.
- Order Quantities follows with a mean square difference of 1.676 and its F value is also in an insignificant position with the significance level of 0.364.
- Lastly, Profit Volumes scored the lowest mean square difference of 0.611 and its F value is also in an insignificant position with the significance level of 0.462.

None of these findings is significant because of their F values being in insignificant positions with their significance levels greater than 0.05.

#### 4.5: Percentage Decrease in Sale Volumes in the Demonetisation Period versus Percentage Increase in Sale Volumes in the Post-Demonetisation Period

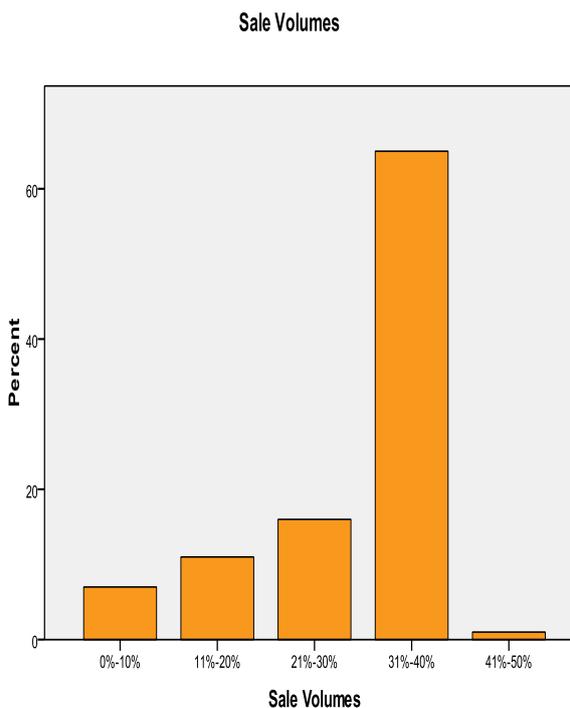


Figure 4.1

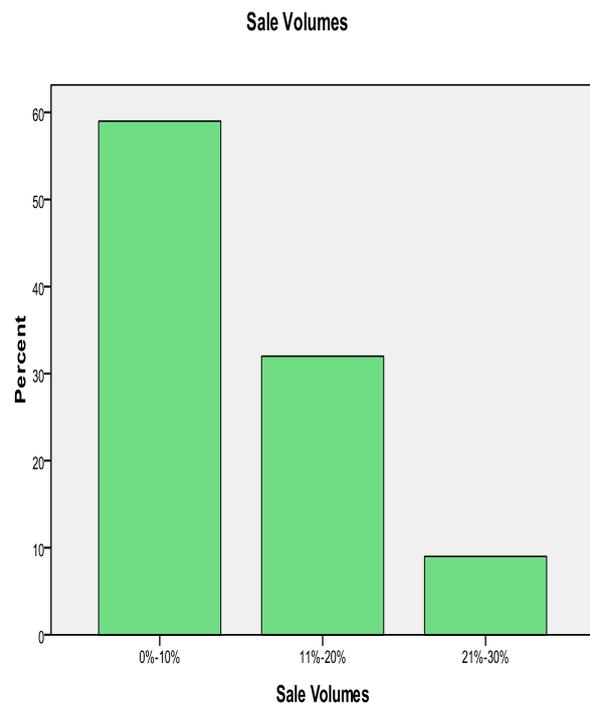


Figure 4.2



Figure 4.1 above represents the percentage decrease in sale volumes in the demonetisation period. From the figure, sale volumes of retailers decreased between 31%-40%. However, in the post-demonetisation period (figure 4.2), their sale volumes have started to increase gradually between 0%-10%. This confirms that the adverse impact the demonetisation exercise had on retailers' sale volumes was great but the sector is bouncing back gradually and returning to normalcy from the shock.

#### 4.6: Percentage Decrease in Profit Volumes in the Demonetisation Period versus Percentage Increase in Profit Volumes in the Post-Demonetisation Period

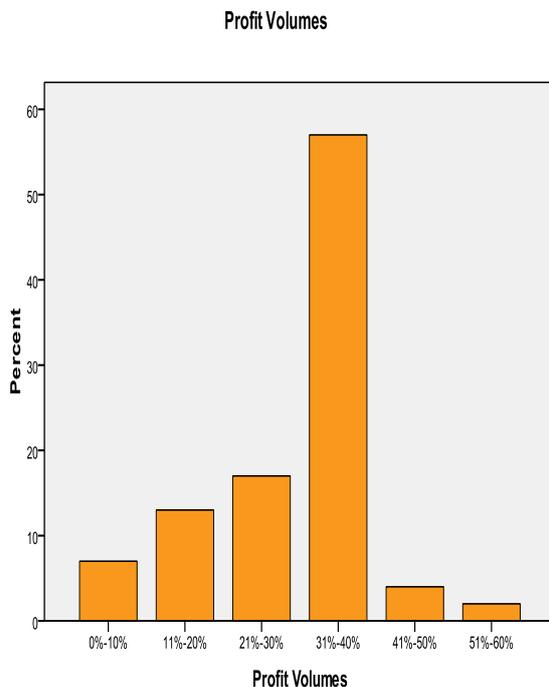


Figure 4.3

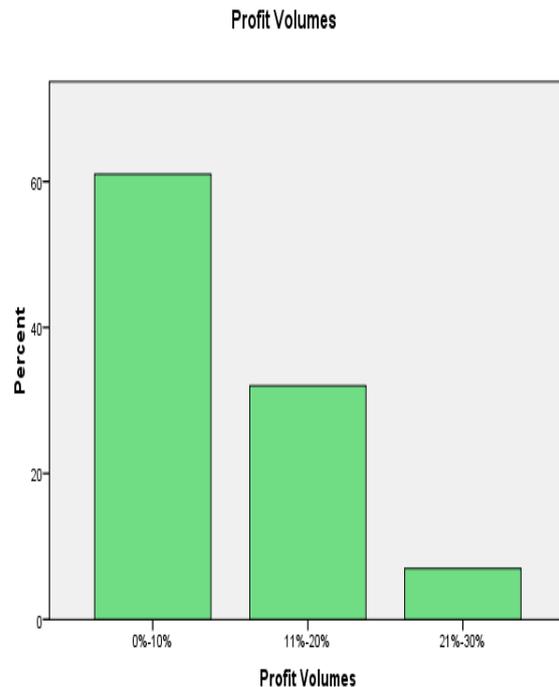
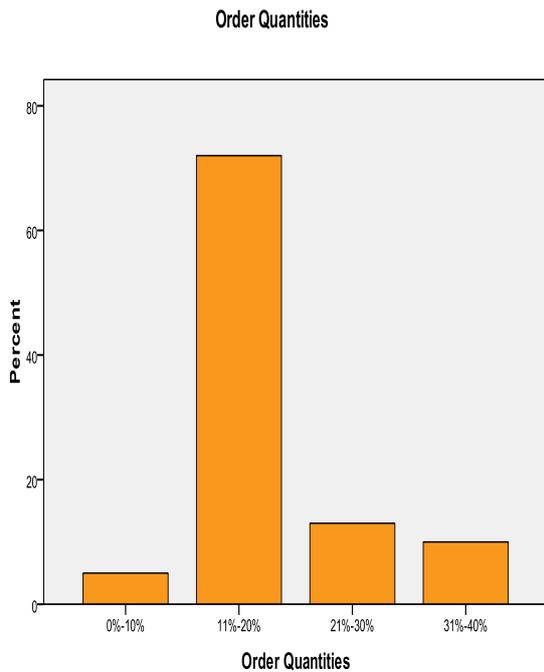


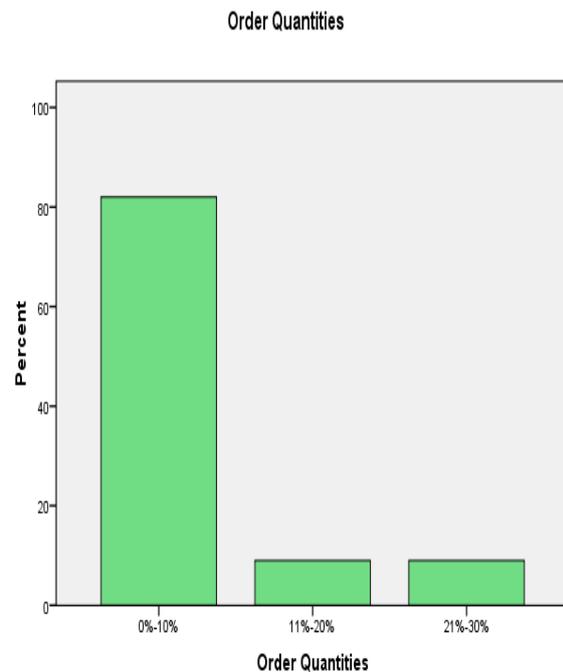
Figure 4.4

Unsurprisingly, according to figure 4.3 representing the percentage decrease in profit volumes in the demonetisation period, profit volumes of retailers decreased between 31%-40%. However, in the post-demonetisation period (figure 4.4), their profit volumes have started to increase gradually between 0%-10%. As sale volumes decreased, it had a corresponding impact on profit volumes.

#### 4.7: Percentage Decrease in Order Quantities in the Demonetisation Period versus Percentage Increase in Order Quantities in the Post-Demonetisation Period



**Figure 4.5**



**Figure 4.6**

According to figure 4.5 representing the percentage decrease in order quantities in the demonetisation period, order quantities by retailers decreased between 11%-20%. However, in the post-demonetisation period (figure 4.6), their order quantities are being increased gradually between 0%-10%. With the decrease in sales and profit volumes, the subsequent decreased in order quantities was justifiable as the economy was at an impasse and there was no market for retailers' merchandise.

## 5. CONCLUSION

As the demonetisation exercise had an instant impact; both positive and negative on the economy, it was imperative to study the impacts on the retail sector because of its cash-dependency. Some retail outlets were affected severely and experienced a fall in their sales, profits and orders. Contrarily, several others also capitalised on the situation and elevated their entire operations in the event of the announcement. Their views have been presented and analysed accordingly in this study.

In conclusion, this study has comparatively explored and analysed the magnitude of the impacts of the demonetisation and post-demonetisation on the retailers' sale volumes, profit volumes and order quantities. Using the research hypotheses constructed and tested statistically with percentage analyses, Cronbach's alpha, correlation analyses and ANOVA, this study has provided insights into the phenomena. This may be used as a guide for the re-



monetisation exercise that is being followed. Finally, the managerial implications and limitations and future areas of research are also presented below;

### **5.1 Managerial Implications**

- Firstly, order quantities, sale volumes and profit volumes were found to be significant positions when measured against each other in both the demonetisation and the post-demonetisation periods. This implies that they are positively related. It is recommended that the retailers should pay equal importance to these three factors in their operations as they are reviving from the setback.
- Secondly, there were significant mean squares differences as recorded in the following order; order quantities, sale volumes and lastly profit volumes demonetisation period. Taking a stand from this revelation, the retailers are to pay much attention to the aforementioned factors in order.
- Further, the mean squares differences as recorded in the following order; sale volumes, order quantities and profit volumes, in the post-demonetisation period were found to be in insignificant positions. It is recommended that the manufacturers should revise their promotional strategies in order to boost the customers' patronage of the retailer' merchandise since the economy is now reviving from the setback.
- Lastly, it was revealed that sale volumes, profit volumes and order quantities are being increased gradually between 0%-10. To accelerate the percentage increases, it is recommended that manufacturers should lower their price levels in the short-run for retailers to do likewise in their stores to gain consumers' intention. Consequently, this will pave the way for more purchases.

### **5.2 Limitations and Future Areas of Research**

- The study only focuses on 100 respondents from four places of the city. Future research should incorporate the respondents of different cities to obtain more valid and worthy findings and recommendations on the demonetisation topic.
- Moreover, the results generated in this study may not apply to all situations in the retail sector. This is because the study adopted only sales volumes, profit volumes and order quantities of retailers as the dependent variables and was measured against demonetisation. Hence, there is a limitation as to its generalisation in other



studies. To solve this limitation, a wider exploration of other factors could be done to give more insightful conclusions.

- Further empirical research can be done on the digital payments and its growth among the rural and the urban segments of the population in the demonetisation and post-demonetisation periods. This can provide better insights as the country embarks on re-monetization.
- Finally, it will be interesting to carry out a comparative study between both the organised and unorganised retail sectors using consumers as respondents. This comparison could be beneficial to assist the Government, manufacturers, wholesalers, distributors and retailers in obtaining the diverse views of consumers on the topic.

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