" An analytical study of the change in impacts of e-commerce applications [Apps] on consumer buying behaviour in the fashion clothing industry."

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Abstract

*The growing penetration of technology such as internet connections, broadband and services like 3G and 4G, laptops, smartphones, tablets are coupled with the increasing acceptance of idea of virtual shopping is set to drive the e-commerce ecosystem..**[Panigrahi,2016]** Consumer behaviour is the backbone of every marketing strategy of any firm which is there to satisfy the consumers satisfaction, increases the revenue, earning per share and stock price. **[Sharma,2014]** The researcher wants to provide **effects before** the introduction of apps and **after** the introduction of apps in Mumbai City. Additionally, analysing the cause and the effect relationship with **before and after effects** of these applications. The online fashion shopping industry has become a vital channel for organizations and rigorously try to innovate themselves as 93% of the buyers looks for freshness to satisfy their intrinsic needs.**[Manneh,2017]** Hence, after in-depth understanding of these three aspects researcher wanted to utilize and solve the issue discussed further in the report.*

Key Words: *Consumer Behaviour, Applications [Apps], Digitalization, Before and After user of Applications, Transactions, Quality, Fashion Clothing Industry.*

Introduction:

As our country India has moved into digitalization which has in turn affected the growth in company's sources of revenue and operational gains. Social commerce has increased the digital influencers and has created, improvised shopping experience for the consumers that has led to increase in the disposable incomes, internet, smartphone seepage and the comfort which lies in the online shopping world.

Brands around the world are investing and harnessing digital platforms to tap the millions of connected people in the country.**[Prasad,2018]** The rise in the use of mobile phones have increased tremendously, in 2013 the consumption of mobile phone was **534.9** million and today in 2018 its **775.5** and is expected to rise to **813.2** million by 2019. **[Statista,2018]** This proves that the e-commerce applications in the fashion clothing industry are at an advantage as most of the population uses a phone. The learner also wanted to analyse the impact of these applications on *consumer buying behaviour* towards the fashion clothing industry.

Personalization with the help of e-m-commerce applications can curate the shopping experience of the consumers.
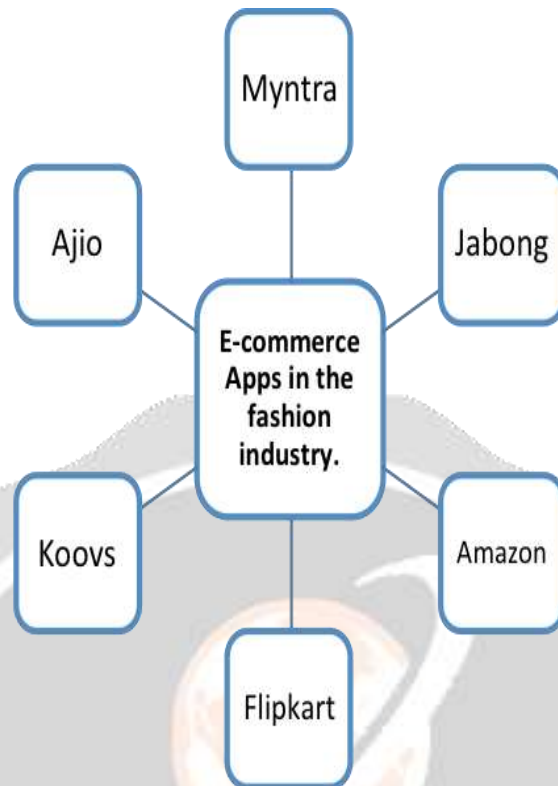
Figure 1: [India's E-Commerce Fashion Clothing Applications [Source: Desk Work]

Research Aim:

The aim of this study is to focus on the impact of the consumer buying behaviour in the fashion clothing industry while understanding the behavioural changes before and after the introduction of apps.

Research Objectives:

- To understand factors affecting **before** the introduction of the apps.
- To identify the factors affecting **after** the introduction of the apps.
- To understand and identify the **profile** of **consumer's awareness** about online clothing shopping.
- To analyse and **compare** the **impact of digitalization** on consumer buying (purchase intention) behaviour and e-applications.
- To identify the **factors influencing consumers** observe the level of **user-friendliness** while making a **transaction** in an e-commerce platform.
- To examine the factors of the **quality** being delivered is as expected by the consumers.

Hypothesis:

A null hypothesis has its purpose that expresses utmost no relationship between its variables. The researcher has used a **positivist paradigm** study which emphasises on observation and reason behind understanding the human behaviour.

H0: There is a significant correlation between e-commerce applications and consumer buying behaviour in the fashion industry.

H1: There is no significant correlation between e-commerce applications and consumer buying behaviour in fashion clothing industry.

Based on levels of statistical significant there is a 5% difference in the mean exam performance between the two hypothesis.

Literature Review:

The literature review consists of five major factors **e-commerce applications, consumer buying behaviour, fashion clothing industry, before and after introduction of apps.**

Electronic Commerce (E-Commerce) are digitally permitted commercial transactions between two or more organizations and individuals. E-commerce is a fast moving area in the terms of opportunities and technologies. Security is factor which restricts customers and organizations engaging with e-commerce. Security is a core issue faced in e-commerce. E-commerce security is the protection of e-commerce assets from unauthorized access, alteration or destruction.**[Patro,2016;Saha,2012]** According to **Kotler(2001),** the factors influencing a consumers clothing purchase behaviour is put across as personal, psychological and cultural. When consumers make decisions, they are consumed by the current fashion, branding and marketing activities as an individual, psychological and social factors.

The rapid increase in the development of e-commerce has led to a drastic increase in the online demands of the fashion trends. Internet shopping has been expanding and provides opportunities in the fashion market to extend, attract new ones and creates a brand image for the retailers. Before the introduction of the applications, Many people enjoy the experience of shopping in retail stores and malls. **73%** of customers want to try in and touch hence, brick and mortar shops are highly integral. After the launch of the e-applications the consumers could buy any day of the week 24/7. Saving money becomes high in value as discounts, offers plus comparing of prices and finding best possible deals while saving time and making it highly convenient. **76%** of people who conduct a local search on their smartphone visit a business within **24 hours** and **28%** of those searches result in a purchase. **82%** turn to their devices to help them make a product decision.

To summarise, this explains insights on how growing and profitable are apps especiily for fashion clothing industry. Mumbai as a fashion hub, before the apps were introduced the city still highly believed in street shopping, brick and mortar shops and many more alternatives which are still present in the app times as well. Apps come with both positive and negatives perspectives which are categorised distinctively with information providing for researchers future scope of the research which would help fill out the gaps.

Literature Review:

The objectives and the aim are covered by the researcher by using objectives with quantitative analysis with the help of SPSS, MATLAB and Advanced Excel software's.

Demographics	Mean	Range	Median	Min	Max	Mode	Std. Dev	Variation
Age	1,6513	4	1	0	4	1	0.9439	0.8909
Gender	1,3289	3	1	0	3	1	0.5843	0.3414
Income	1,4803	3	1	0	3	1	0.6507	0.4234

Table 1: Measures of Central Tendencies.[Source: MATLAB]

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.14017229
R Square	0.019648271
Adjusted R Square	0.013024273
Standard Error	0.794912112
Observations	150

ANOVA

	df	SS	MS	F	ignificance F			
Regression	1	1.874314044	1.874314	2.966225272	0.087109			
Residual	148	93.51901929	0.631885					
Total	149	95.39333333						

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	ower 95.0%	pper 95.0%
Intercept	1.930773391	0.16569086	11.65287	1.12384E-22	1.603348	2.258199	1.603348	2.258199
1	0.129980169	0.075470119	1.722273	0.08710905	-0.01916	0.279118	-0.01916	0.279118

Figure 2: Pearson's Correlation and Regression. [Source: Excel]

Pearson's Correlation is the strength of the relationship which is numerically measured among continuous variables. Under this, r-square is found to be **0.01967** which is the coefficient of determination. **Regression** analysis involves analysing several variables wherein dependant and independent variables are required. $y = a + bx$.[Seif,2018]

The researcher as measured above has incorporated regression with **ANOVA Analysis** which as a part of variance analysis finds out the difference among the groups. Hence, Anova analysis brings about the two independent variables which are **gender and the income levels** which then compared together, which does explain that men with an income of 1 Lakh to 5 Lakhs do spend money on buying clothes on fashion clothing applications.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
satisfaction * satisfaction	151	99.3%	1	0.7%	152	100.0%

satisfaction * satisfaction Crosstabulation

Count

		satisfaction			
		Satisfied	Extremely Satisfied	Dissatisfied	Extremely Dissatisfied
satisfaction	Extremely Satisfied	2	6	1	4
	Satisfied	19	29	13	2
	Dissatisfied	17	22	12	3
	Extremely Dissatisfied	7	12	1	1
Total		45	69	27	10

satisfaction * satisfaction Crosstabulation

Count

		Total
satisfaction	Extremely Satisfied	13
	Satisfied	63
	Dissatisfied	54
	Extremely Dissatisfied	21
Total		151

Figure 3: Crosstabulations. [Source: SPSS]

To analyse before and after use of applications, the crosstabulations between consumer purchases before the launch of the apps and after the launch of the apps, **94%** of the consumers preferred going to malls. On the other hand, consumers preferred online apps after the launch of the apps as **67%** of the consumers think that e-commerce application for fashion clothing as much cheaper than buying from an actual store.

Secondly, crosstabulation between satisfaction levels of consumers before and after the launch of the apps brought across **54%** of consumers were dissatisfied by in-store before the app launch and **69%** of the consumers were extremely satisfied with applications to shop fashion clothing. The **positivism approach** as extension of knowledge with comparison with objectives explained in the research.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Mode of payment * Choice	152	100.0%	0	0.0%	152	100.0%

Mode of payment * Choice Crosstabulation

Count

			Choice			Total
			1.0	2.0	3.0	
		1	0	0	0	1
Mode of payment	1.0	0	59	16	6	81
	2.0	0	9	2	0	11
	3.0	0	1	0	0	1
	4.0	0	39	17	2	58
Total		1	108	35	8	152

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Afraid * Choice	152	100.0%	0	0.0%	152	100.0%

afraid * choice Crosstabulation

Count

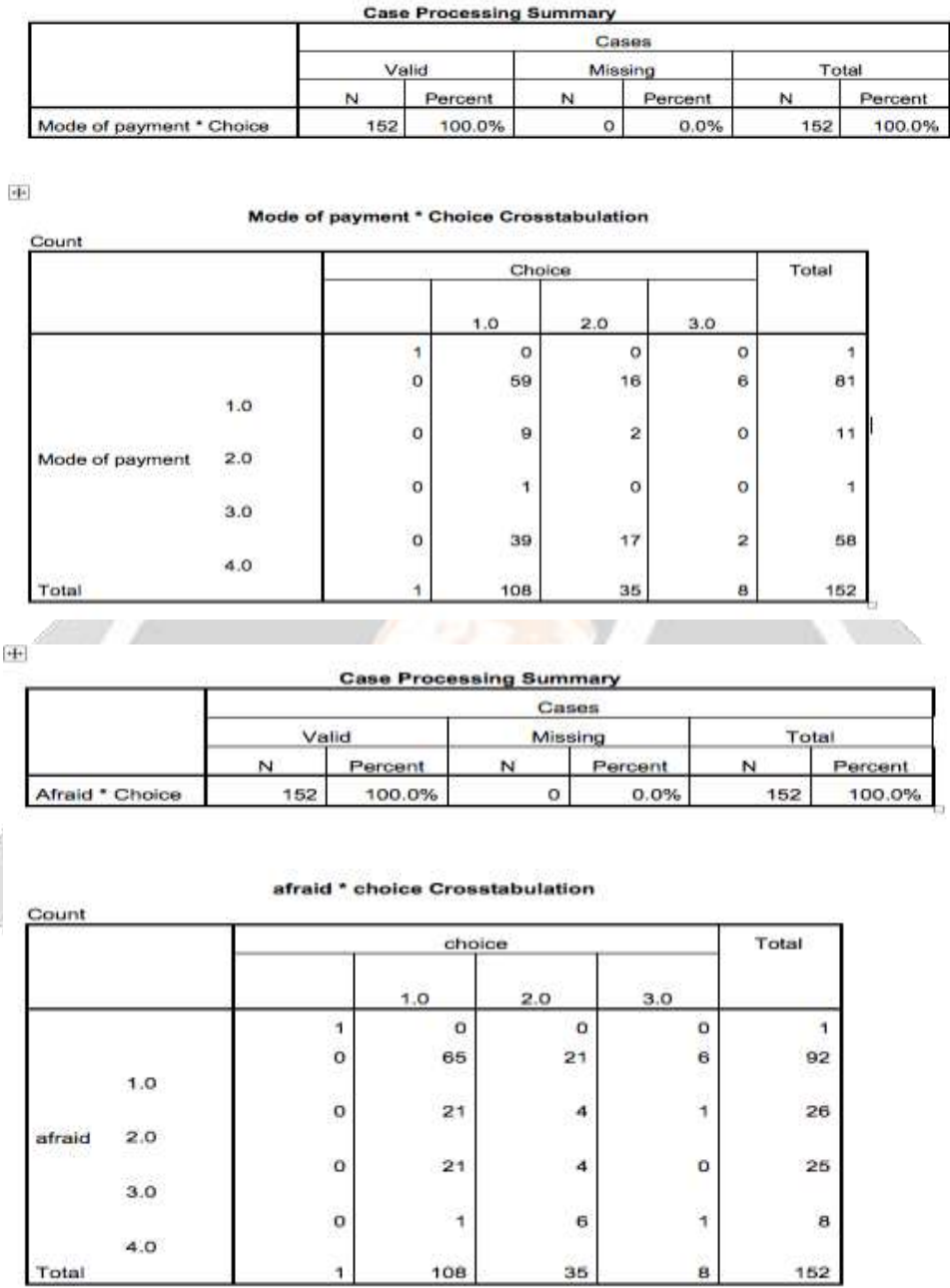|			choice			Total
			1.0	2.0	3.0	
		1	0	0	0	1
afraid	1.0	0	65	21	6	92
	2.0	0	21	4	1	26
	3.0	0	21	4	0	25
	4.0	0	1	6	1	8
Total		1	108	35	8	152

Figure 4: Crosstabulations. [Source: SPSS]

The researcher wanted to understand crosstabulation between the what are consumers afraid of while purchasing via online apps and given a choice between online apps or brick and mortar shops, shocking irrespective of the "quality" issues, **92%** of the consumers would prefer shopping online via e-commerce apps. This proves that the research of finding the "change" in the consumer behaviours (before and after) introduction of the applications results in consumers having a leverage over towards e-commerce applications.

Why do you choose a certain kind of a payment method?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	.7	.7	.7
	1.0	81	53.3	53.3	53.9
	2.0	11	7.2	7.2	61.2
	3.0	1	.7	.7	61.8
	4.0	58	38.2	38.2	100.0
	Total	152	100.0	100.0	

⊞

Mode of Payment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	.7	.7	.7
	1.0	85	55.9	55.9	56.6
	2.0	20	13.2	13.2	69.7
	3.0	28	18.4	18.4	88.2
	4.0	18	11.8	11.8	100.0
	Total	152	100.0	100.0	

Figure 5: Frequencies. [Source: SPSS]

Frequencies analyse the measures of tendencies, measures of dispersion and percentile values.**[Frost,2019]** To quantify how many times consumers preferred a certain of mode of payment and why would they choose the same. Collectively the frequencies came out towards mode of payment to be focused mainly only on **"cash on delivery"** by **85%** and when it comes to **"why"** consumers prefer **81%** on their own safety/security and reliability.

Cash on delivery makes consumer buying behaviour to focus on more towards safety than convenience or any hassle of usage of cash. The crucial reason why consumers behaviour towards not using their credit/debit cards is due to the **cybersecurity concerns** which are increasing at a higher level on a daily basis. Another prime reason for preferring this option could be the reason of clothing received by cash on delivery could bring about no **quality problems** and easy returns.

Conclusion:

The researcher has explained data collection with the help of three professional data analysis software's like SPSS, MATLAB and Advance Excel. Researcher has articulated clear findings, wholly valid with insightful conclusions on each of the objectives and hypothesis provided.

The researcher started off this research with having a plain idea of how e-commerce applications work in fashion clothing industry. The **aim** proposed the "change" of the consumer buying behaviours which was quantified in the data collections and discussions. Through increasing number of smartphones users on a daily basis, fashion clothing applications have been increasing within the tech-savvy individuals across India. Additionally, researcher came up with **objectives** of the study after examining the factors in e-commerce business. The **"before and after"** the introduction of the applications is the change which the researcher mentions in the title of the dissertation. To understand awareness, factors influencing consume buying behaviour and the user-friendliness additionally the purpose was to identify the **gaps** in transaction and quality features and find alternative solutions.

The **"changes"** as mentioned in the title as consumer buying behaviour for e-commerce applications do prefer buying from online apps compared to brick and mortar shops by **71.2%.** The researcher as mentioned in the **literature review** brings value during data collection as predicted, **"quality and security"** are the prime constraints. Hence, the researcher has an agreement with the investigations made. The only minor **puzzling aspect** has been that credit/debit card users lie second after cash on delivery irrespective of the high security concerns. The researcher **identified relevant ideas for the future investigation** and feels that the only reason to why credit cards are ranked second are due to convenience, pin number protection and a strong budgeting tool unlike cash.

After an apprehensive coherent evidence above explaining all the aspects of **objectives** and **hypothesis** it is secure to say "There is a significant correlation between applications and consumer buying behaviour in the fashion industry." Gaps have been clearly identified through qualitative and quantitative data and provided with future scope of research. With the help of software's, researcher has been able to use various functions and measures of data analysis to understand and evaluate the each small perspective of consumers responses.

Hence, after purposeful implications have been quantified the researcher would now explain the logical conclusions impacted from the research. The conclusion would include all the drawings from the introduction, literature review, research methodology and the findings from the survey by explaining what could have been done differently and the limitations of the research.

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