

# **Impulse Purchase and Post Purchase Regret**

## **A study of consumer behavior in the online apparel segment**

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### **Abstract**

*With the rise of E-commerce and its dominance over the traditional retail platforms, the consumer has become more and more comfortable with the idea of shopping online with the convenience of their homes. This behavior is further reinforced by the plethora of sizes, colors, and variety of apparel available to the consumer to purchase from. The onset of festive sales, end of season sales and discounts further provides an impetus to the consumer to go ahead with scrolling through the multitude of options available to them. All of this induces a sense of unplanned purchase within the rational consumer who ends up buying more than he intended to. Since apparel is one such segment where the 'touch' is significant, there are multiple instances where the consumers regret the purchases they made online. This paper tends to evaluate the relationship between the impulse buying behavior depicted by the consumers and the regret they face post the purchase. The paper also aims to evaluate the association of moods and emotions with the portrayal of impulse buying behavior.*

### **Keywords**

*Impulse buying behavior, impulse purchase, post purchase regret, dissonance, online shopping, consumer behavior, process regret, outcome regret, moods, emotions*

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## **I. Introduction**

With the advent of e-commerce, consumers prefer to shop online- be it small token items for top up or be it a full-fledged regular stock up. With the amalgamation of technology and AI into the domain of e-commerce, the consumer experience has gone up tremendously which the consumers appreciate. This stands true even for the apparel purchases with the variety of merchandise, seasonal discounts and promotions being offered to consumers from time to time. The only issue the consumers face is the intangibility in case of apparel. Traditionally, we as consumers have been conditioned to purchasing clothes from brick-and-mortar stores which provided us with the ability to touch and feel an item before purchasing it. The adoption of online shopping behavior has led to this tangibility aspect take a back seat. The probability of not liking the product, however, increases with this since the purchase has been made without feeling the product. The consumer might end up not liking the product which would induce a dissonance which eventually leads to post purchase regret. With the plenty of alternatives and choices being given to the consumer on a day-to-day basis, they have to make a choice thus giving them the notion that an opportunity that has been let go might have been better than what they have actually purchased. This then induces cognitive dissonance among the consumers and eventually, post purchase regret sets in. This study aims to understand the relationship between impulse purchases and post purchase regret, moderated by age and gender. It also aims to understand the impact moods and emotions have on the impulse purchases. Lastly, the paper attempts to understand whether corrective measures offered to the consumers reduce post purchase dissonance in any way.

## **II. Literature Review**

### **3.1 Impulse purchase**

An impulse purchase is an unplanned purchase which the consumer had not intended. Once the shopper enters the shopping environment, he is exposed to several cues which induce unplanned buying. This behavior is very commonly depicted across all shopping formats owing to environmental cues these formats possess. Talking specifically with respect to the online formats, the website design, the ease of use, the website interface, eye catching discounts and price drops, all add up to provide a holistically satisfying experience for the online shoppers. The incorporation of IT into this further reinforces the consumers' will to purchase since repetitive advertisements and suggestions basis searches concretely get embedded into the minds of the consumers who then end up buying eventually.

Impulse purchases are simply unintended purchases which a consumer carries forward with no previous evaluation. This style of non-rational purchases can be studied by evaluating a consumer's inherent traits as well as the current mental states merged with the cues an external environment provides.

## 2.2 Post purchase regret

Post purchase regret can simply be described as the dissonance a consumer experiences post an impulse purchase. It is a feeling of discomfort which arises due to the comparison of 'What is and what might have been'. This paper aims to evaluate the various facets of post purchase regret experienced by a consumer when an impulse purchase turns out to be dissatisfactory.

Regret is simply an outcome of choosing from a wide variety of choices available to the consumer. In the online platform, consumers are exposed to a multitude of choices to pick from. The consumer is a rational being. To maximize his rational behavior, he tends to evaluate and narrow down the consideration set before purchasing. This induces a cognitive dissonance with respect to the choice the consumer has eventually made. When an outcome, when compared to another potential choice that the consumer could have made, seems fairly better, regret sets in and the consumer evaluates the choices he could've made differently.

There are 2 broad facets of Post purchase regret- **Outcome Regret and Process Regret**

### 2.2.1 Outcome Regret

Post purchase outcome regret can be defined as the regret that sets in when the consumer compares the outcomes of the choice he made and the choice he could've made had he evaluated the options in his consideration set more carefully.

There can be 2 types of outcome regrets faced by the consumer-

#### 2.2.1.1 Regret due to foregone alternatives

This regret is the result of choosing one option above another potential option. When the final purchase is considered to be inferior in the minds of the consumers, in comparison to another purchase which could've turned out better, the consumers are said to experience Regret due to foregone alternatives and this is one of the most predominantly faced regrets when considering impulse purchase scenarios. Consumers always evaluate what they have received with what they might have received and more often than not, their evaluation of the current purchase turns out to be inferior and less lucrative than what they could've alternatively purchased. In this case, the rejected choice set appears superior and better.

#### 2.2.1.2 Regret due to change in significance

This regret sets in when the consumer evaluates the purchase upon its ability to meet a desired outcome. This would eventually decide whether a purchase was significant after all. When a consumer makes a purchase, there is a certain expected utility in his mind, regarding the product. In situations, where the purchase is not able to serve its purpose, or faces a decline in its utility, making it inappropriate for usage, the consumers are faced with a regret due to change in significance of the product. The regret is experienced due to a change in utility during a time period ranging from the time it was purchased to the time after the purchase.

### 2.2.2 Process Regret

This regret is a facet of the quality of decision making the consumer has endured. Researchers have stated that in addition to the regret in terms of outcome of the purchase, consumers can also regret their decision-making processes due to which they end up making unsatisfactory purchases. In short, process regret occurs when consumers regret the process of arriving at a decision.

There can be 2 categories of Process regret consumers can face

#### 2.2.2.1 Regret due to under consideration of the purchase

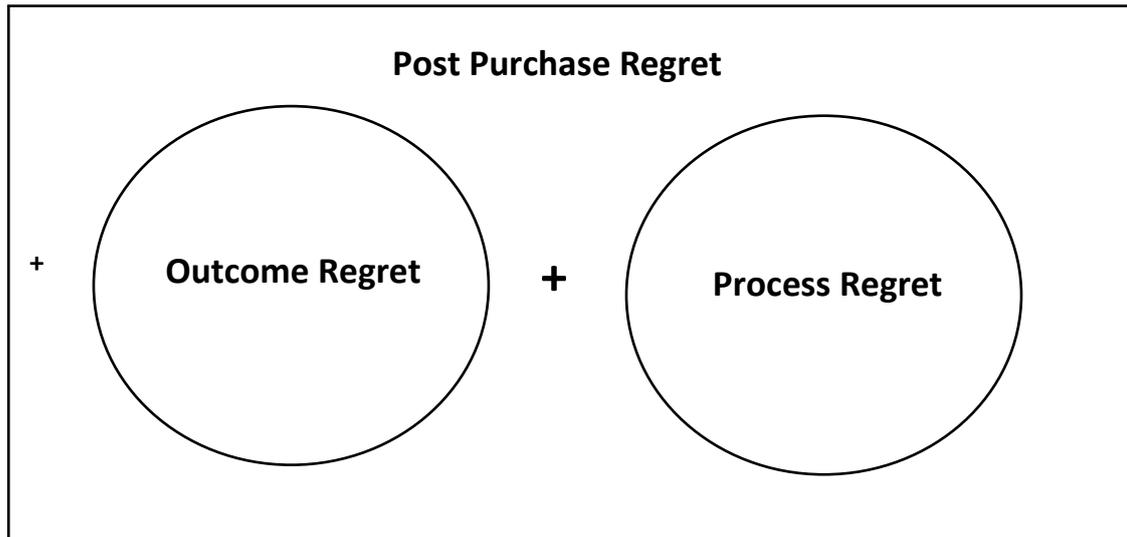
This regret occurs majorly when consumers feel that they did not possess the adequate amount of knowledge and did not give enough importance to the quality of purchase decision. Consumers tend to form decision plans before going ahead with a purchase but it is not always that plans materialize accordingly. Regret is induced when the consumer feels that the actual decision plan is not in line with how he had thought it to be and hence dissonance and a feeling of irresponsibility on part of the consumer arises.

#### 2.2.2.2 Regret due to over consideration of the purchase

This regret occurs when the consumers, regardless of the outcome of the purchase tend to believe that has put in too much time and effort into the decision.

This also implies that the consumers have put in a little too much effort into gathering information most of which ended up being redundant. They feel they could've made the same decision with a lesser amount of effort. Consumers want to be as rational as possible when making purchase decisions and hence believe that gathering more and more information enables them to make better evaluations and hence minimize their potential of encountering risks. But there is a threshold after which gathering any more information does not prove to be fruitful and leads to wasteful efforts.

In summary, the post purchase regret can be expressed as a sum of the two; the sum of outcome regret and process regret



### III. Research Methodology

#### 3.1 Aim of the study and Data collection Methodology

Aim of the study is to empirically test the degree of relationship between impulse purchases and the post purchase regret experienced afterwards. This is moderated by gender and age. The study also aims to understand the extent to which the impulse buying behavior differs in females from that in males. The impact of moods and emotions on impulse purchases has been tested for. Various factors inducing impulse purchases and their significance has been explored along with the extent of difference corrective measures implemented by the companies create to counter the post purchase regret experienced by the consumers. The data collection methodology undertaken for this study was through the circulation of survey forms for primary research which gauges the respondents' responses basis Likert Scales, both ordinal and nominal. The questionnaire has been divided into 2 parts; one measuring the impulse purchase behavior of the respondents, and the other measure the extent of post purchase regret experienced. The impulsive traits of respondents have also been incorporated to have a better understanding of impulse purchase decisions. Secondary research has been undertaken to understand the studies that have been conducted previously in this area.

The likert scale responses ranged from "strongly agree" to "strongly disagree" which were then weighted as 5 being strongly agree to 1 being strongly disagree. Similarly, for the responses which incorporated a "yes" or "no" type response, 1 was taken to be yes and no as 0.

#### 3.2 Demographics of the Respondents

The survey forms were filled by 69 respondents out of which 24 were females and 45 were male respondents. The study has been carried forward in 4 broad age groups, 18-24, 25-32, 33-39 and 40+ out of which 37 respondents belong to 18-24 age group, 30 belong to the 25-32 age group and 2 are in the 40+ age group. For quantifying these variables, females was taken to be 2 and males as 1. Similarly for the age groups, 18-24 was taken to be 1, 25-32 was taken to be 2, 33-39 was taken to be 3 and 40+ as 4.

#### 3.3 Hypothesis Development

For the purpose of this study, 5 broad hypotheses have been fabricated and tested for.

##### 3.3.1 Relationship between impulse purchase and post purchase regret

The study aims to understand the impact impulse purchase behavior has on post purchase regret. Several research have established that most of the impulse purchases end up in regret. Impulsive purchases which end up in regret induce a dissatisfaction among the consumers about the particular purchase which can lead to the consumer churn and negative word of mouth. This study aims to empirically test the relationship between impulse purchases and post purchase regret

##### **H0- there is no significant relationship between Impulse purchase and post purchase regret**

This study is also moderated by gender and age groups for a better understanding of the outcomes. To reinforce this, other hypotheses have been developed and tested for.

**H1a- Females depict a greater extent of post purchase regret from impulse purchase outcomes than men**  
**H1b- Post purchase regret experienced after an impulse purchase varies with the age group of respondents**

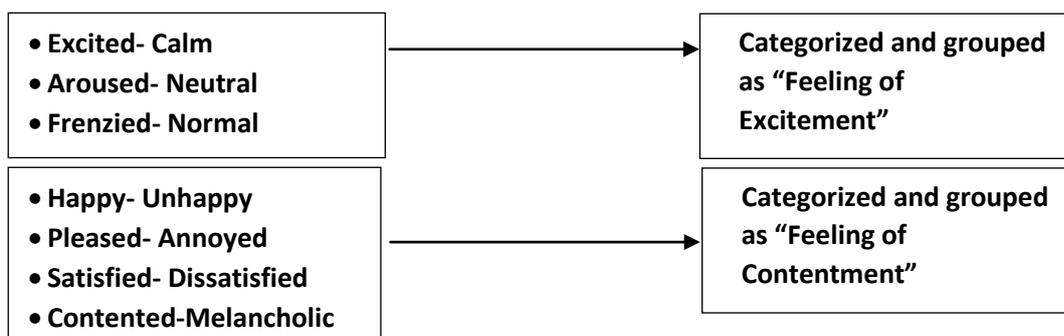
**3.3.2 Short lived emotions experienced post a purchase which drive an impulse purchase**

Multiple studies claim that a feeling of Excitement or Contentment is experienced by consumers post an impulse purchase has been made till the time the product has been delivered to them. The study aims to analyze the dominance of these short term moods and emotions inducing an impulse purchase. The craving for experiencing this hedonic value of a purchase can drive impulse purchases, researches have claimed.

For this purpose, 7 different spectrums of moods and emotions were taken on a Likert Scale which the respondents responded to.

These 7 moods and emotions were tested for Factor Reduction using Factor Analysis to understand and nullify any factor which does not hold a significant amount of weightage for the analysis.

These 7 categories of emotions were as follows:



After conducting a factor analysis, 2 broad variables were extracted by the algorithm which were then classified as “Feeling of Excitement” and “Feeling of Contentment” respectively.

**H0- Impulse purchases are associated with the moods and emotions experienced pre and post the purchase**

**3.3.3 Factors inducing Impulse purchase behavior**

Several factors have been considered to understand the major drivers of impulse purchases among consumers in the online apparel format. These are Variety, mood and emotions of the consumer, Discounts, Festive sales among others. These specially have been chosen since a lot of previous research does not exist to understand these drivers.

**H1a- Variety of merchandise available does not have a significant positive association with Impulse purchases**

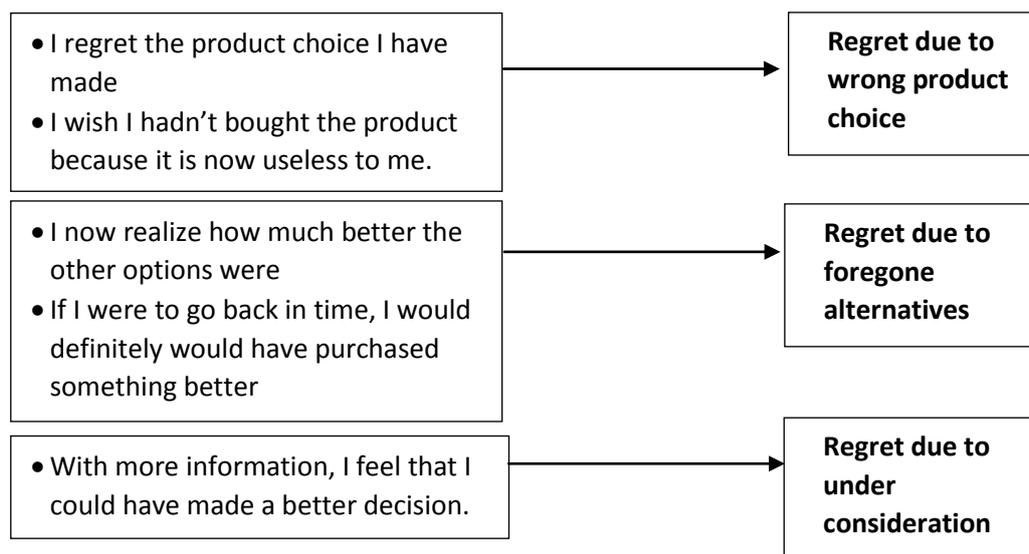
**H1b- Moods and emotional mindset of consumers does not have a significant positive association with Impulse purchases**

**H1c- Discounts on merchandise does not have a significant positive association with Impulse purchases**

**H1d- Word of mouth does not have a significant positive association with Impulse purchases**

**3.3.4 Facets of Post purchase regret**

The 2 facets of Post purchase regret- Outcome Regret and Process Regret have been evaluated. 12 different aspects of post purchase regret were given to respondents to respond upon, on a Likert Scale. These 12 factors were then subjected to Factor analysis to remove any factor not contributing to the empirical evaluation, only 5 of which were retained. These 5 factors were then categorically grouped into 3 broad groups as follows:



**H1a- Regret due to wrong product choices does not associate positively with the facets of post purchase regret**

**H1b- Regret due to foregone alternatives does not associate positively with the facets of post purchase regret**

**H1c- Regret due to under consideration does not associate positively with the facets of post purchase regret**

### 3.3.5 Post purchase regret and remunerative measures

Post purchase regret is a negative outcome for marketers who want to create a positive emotion for their brands. Consumers undergoing post purchase regret tend to act as negative publicity and tend to even refrain from a repurchase due to their unsatisfactory experience. This paper tries to analyze the impact of a post purchase regret on the consumer behavior with respect to the company or product they had a bad experience with. Online platforms provide numerous options for consumers to redeem their purchases and alter their post purchase regret- mainly by providing return policies, cashbacks etc. This paper studies the extent to which these measures prove to be altering the bad experiences and retaining the consumers.

**H1a- There is no significant correlation between post purchase regret experienced and refraining from visiting the website altogether**

**H1b- Post purchase regret is not associated to the cash refund policies offered to the consumer**

**H1c- There is no significant influence of return policies on post purchase regret experienced**

## IV. Findings

### 4.1 Relationship between impulse purchase and post purchase regret

Regression was run between “Impulse purchase patterns” of the respondents and the “frequency of facing post purchase regret” from shopping online for apparels.

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.551796286							
R Square	0.304479141							
Adjusted R Square	0.294098233							
Standard Error	0.775558439							
Observations	69							
<i>ANOVA</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	17.64213924	17.64214	29.33068394	8.90266E-07			
Residual	67	40.29988975	0.601491					
Total	68	57.94202899						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 90.0%</i>	<i>Upper 90.0%</i>
Intercept	0.200661521	0.350265004	0.572885	0.568640346	-0.498470353	0.899793	-0.383551123	0.784874166
X Variable 1	0.819184123	0.151258724	5.415781	8.90266E-07	0.517270447	1.121098	0.566897261	1.071470986

**Exhibit 1: Regression Analysis between impulse purchase and post purchase regret**

From the above result, the p-value for the regression out to be smaller than the significance level of 0.05, which indicates that the null hypothesis can be rejected. The magnitude of R-squared can be observed to be low(0.3044) which indicates that there exists *Weak Superseding Significant Correlation* between impulse purchases and post purchase regret experienced by the respondents. The analysis hence, is significant enough to reject the null hypothesis **H0-there is no significant relationship between Impulse purchase and post purchase regret**

**There exists a significant relationship between impulse purchases and post purchase regret.**

Running the empirical evaluation moderated with gender,

Regression Statistics								
Multiple R	0.478304281							
R Square	0.228774985							
Adjusted R Square	0.197925985							
Standard Error	0.798464785							
Observations	27							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	4.72801636	4.72801636	7.415960996	0.011615586			
Residual	25	15.93865031	0.637546012					
Total	26	20.66666667						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 90.0%</i>	<i>Upper 90.0%</i>
Intercept	0.521472393	0.525117538	0.99305842	0.330196583	-0.56002742	1.602972207	-0.37550228	1.418447064
X Variable 1	0.625766871	0.229788796	2.723226211	0.011615586	0.152507988	1.099025755	0.233255263	1.018278479

**Exhibit 2: Regression Analysis between impulse purchase and post purchase regret moderated for females**

The above analysis is moderated with Females as a respondent, which indicates a significant relationship between Impulse purchase and post purchase regret among females.

Regression Statistics	
Multiple R	0.603860685
R Square	0.364647727
Adjusted R Square	0.34876392
Standard Error	0.760425017
Observations	42

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	13.27491368	13.27491368	22.95719979	2.29635E-05
Residual	40	23.12984823	0.578246206		
Total	41	36.4047619			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-0.07419899	0.472548937	-0.15701863	0.876020061	-1.02925602	0.880858039	-0.86990099	0.721503018
X Variable 1	0.969645868	0.202373524	4.791367216	2.29635E-05	0.560633719	1.378658018	0.628879005	1.310412732

**Exhibit 3: Regression Analysis between impulse purchase and post purchase regret moderated for males**

The above analysis is moderated with males as a respondent, which indicates a significant relationship between Impulse purchase and post purchase regret among males.

Infact, the value of R-squared is stronger in case of males than in females indicating a stronger correlation between the 2 parameters. Hence the null hypothesis, **H1a-Females depict a greater extent of post purchase regret from impulse purchase outcomes than men** is rejected

*It can be said that the relationship is unclear as to which gender responds more strongly in this scenario but there is clearly not a case of dominance of females in the portrayal of a higher extent of post purchase regret.*

The relationship between impulse purchases and post purchases regret when moderated with age group,

SUMMARY OUTPUT 18-24 years of age

Regression Statistics	
Multiple R	0.51764591
R Square	0.267957289
Adjusted R Square	0.246426621
Standard Error	0.789804594
Observations	36

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	7.763318113	7.763318113	12.4453774	0.00122357
Residual	34	21.20890411	0.623791297		
Total	35	28.97222222			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	0.434931507	0.455212414	0.955447377	0.346095915	-0.49017142	1.360034436	-0.33479821	1.204661219
X Variable 1	0.691780822	0.19609408	3.527800646	0.00122357	0.293269705	1.090291939	0.360200586	1.023361058

**Exhibit 4: Regression Analysis between impulse purchase and post purchase regret moderated for ages 18-24**

SUMMARY OUTPUT 25-32 years of age								
Regression Statistics								
Multiple R	0.627528008							
R Square	0.393791401							
Adjusted R Square	0.372887657							
Standard Error	0.757968221							
Observations	31							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	10.82291206	10.82291206	18.83831847	0.00015772			
Residual	29	16.6609589	0.574515824					
Total	30	27.48387097						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-0.25684932	0.566308883	-0.45354986	0.653528691	-1.41508103	0.9013824	-1.21908004	0.705381414
X Variable 1	1.071917808	0.246967849	4.340313176	0.00015772	0.566811843	1.577023773	0.652288062	1.491547555

**Exhibit 5: Regression Analysis between impulse purchase and post purchase regret moderated for ages 25-32**

SUMMARY OUTPUT 40+ years of age								
Regression Statistics								
Multiple R	1							
R Square	1							
Adjusted R Square	65535							
Standard Error	0							
Observations	2							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	0.5	0.5	#NUM!	#NUM!			
Residual	0	0	65535					
Total	1	0.5						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-1	0	65535	#NUM!	-1	-1	-1	-1
X Variable 1	1	0	65535	#NUM!	1	1	1	1

**Exhibit 6: Regression Analysis between impulse purchase and post purchase regret moderated for ages 40+**

In each of the cases for ages 18-24 and 25-32, the p-value is lower than 0.05, the level of significance which implies that they are statistically significant. For the case of ages 40+, there does not exist enough number of respondents for it to have an effective evaluation

Regardless, the null hypothesis, **H1b- Post purchase regret experienced after an impulse purchase varies with the age group of respondents** is rejected. It can be stated that regardless of the age group, the relationship between impulse purchase and post purchase regret exists across.

#### 4.2 Short lived emotions experienced post a purchase which drive an impulse purchase

Y1- "Feeling of Excitement"

Y2- "Feeling of Contentment"

Regression was run individually for Y1 and Y2 with the impulse purchase behavior of the respondents to analyze whether these emotions experienced are drivers of impulse purchases and whether these emotions are experienced during and post the purchase for a short while.

Y1 vs X2								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.054295588							
R Square	0.002948011							
Adjusted R Square	-0.011933362							
Standard Error	0.590604463							
Observations	69							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	0.069100235	0.0691	0.198101	0.657692948			
Residual	67	23.37051329	0.348814					
Total	68	23.43961353						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	3.363836825	0.266734348	12.61119	2.34E-19	2.831432837	3.896240812	2.831432837	3.896240812
X Variable 1	0.051267916	0.115186777	0.445085	0.657693	-0.178645854	0.281181686	-0.178645854	0.281181686

Exhibit 7: Regression Analysis between impulse purchase and feeling of excitement experienced

Y2 vs X2								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.118077011							
R Square	0.013942181							
Adjusted R Square	-0.0007751							
Standard Error	1.043282754							
Observations	69							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	1.031115179	1.031115	0.947334	0.333899804			
Residual	67	72.92540656	1.088439					
Total	68	73.95652174						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.373208379	0.47117718	5.036764	3.81E-06	1.432734791	3.313681967	1.432734791	3.313681967
X Variable 1	0.198042999	0.203473536	0.973311	0.3338998	-0.208091879	0.604177876	-0.208091879	0.604177876

Exhibit 8: Regression Analysis between impulse purchase and feeling of contentment experienced

In both of the analysis above, the p value of the regression analysis comes out to be greater than the level of significance, 0.05 which leads to the acceptance of the null hypothesis, **H0- impulse purchases are associated with the moods and emotions experienced pre and post the purchase**

**Implication of the hypothesis:** If a marketer understands the importance of emotions experienced by a consumer for a short while, after the purchase has been made, they can appeal to the emotions continually to enforce a stronger relationship with the consumer and turn them into loyalists such that even if they experience a few instances of bad encounters with the purchase, they can still give the brand a chance to redeem itself in the future. Emotional appeals can be used to reduce churn of customers after a bad experience.

4.3 Factors inducing Impulse purchase behavior

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.225061054							
R Square	0.050652478							
Adjusted R Square	0.036483112							
Standard Error	1.777516038							
Observations	69							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	11.29476855	11.29477	3.574788	0.06298817			
Residual	67	211.6907387	3.159563					
Total	68	222.9855072						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.522601985	0.802778529	3.142339	0.002496	0.920249334	4.124954635	0.920249334	4.124954635
X Variable 1	0.655457552	0.346672532	1.890711	0.062988	-0.036503717	1.347418821	-0.036503717	1.347418821

Exhibit 9: Regression Analysis between impulse purchase and Variety of merchandise available

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.245528368							
R Square	0.06028418							
Adjusted R Square	0.04625857							
Standard Error	2.047792445							
Observations	69							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	18.024096	18.0241	4.298150506	0.042002598			
Residual	67	280.9614112	4.193454					
Total	68	298.9855072						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.166482911	0.924843305	2.342541	0.022131933	0.320487947	4.012477874	0.320487947	4.012477874
X Variable 1	0.82800441	0.399385083	2.073198	0.042002598	0.030828447	1.625180373	0.030828447	1.625180373

Exhibit 10: Regression Analysis between impulse purchase and moods of the consumer

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.000490427							
R Square	2.40518E-07							
Adjusted R Square	-0.014925129							
Standard Error	2.112353324							
Observations	69							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	7.19045E-05	7.19045E-05	1.61147E-05	0.996808977			
Residual	67	298.9564498	4.462036565					
Total	68	298.9565217						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4.43109151	0.954000897	4.644745643	1.64061E-05	2.52689775	6.335285271	2.52689775	6.335285271
X Variable 1	0.001653804	0.411976522	0.004014316	0.996808977	-0.820654775	0.823962382	-0.820654775	0.823962382

Exhibit 11: Regression Analysis between impulse purchase and discounts offered on the online platforms

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.192677594							
R Square	0.037124655							
Adjusted R Square	0.022753381							
Standard Error	1.990763447							
Observations	69							
<i>ANOVA</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	10.23779621	10.2378	2.583254	0.112702306			
Residual	67	265.5303197	3.963139					
Total	68	275.7681159						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	2.331863286	0.899087332	2.593589	0.011654	0.53727746	4.126449111	0.53727746	4.126449111
X Variable 1	0.624035281	0.388262603	1.607251	0.112702	-0.150940118	1.39901068	-0.150940118	1.39901068

**Exhibit12: Regression Analysis between impulse purchase and word of mouth**

Out of the factors considered relevant for driving an impulse purchase, only moods and emotional state of mind the consumer is in tends to drive an impulse purchase. The p value is significant and hence the null hypothesis, **H1b-moods and emotions of a consumer do not play a role in inducing impulse purchases** is rejected. Rest, all the other hypotheses are accepted, which implies, variety of merchandise, discounts and word of mouth are not significant drivers of impulse purchase.

**4.4 Facets of post purchase regret**

- F1- “wrong choice of product”**
- F2- “Foregone Alternatives”**
- F3- “Under Consideration”**

F1 vs Y2 SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.160165771							
R Square	0.025653074							
Adjusted R Square	0.011110583							
Standard Error	0.917944149							
Observations	69							
<i>ANOVA</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	1.486391165	1.486391	1.764008	0.188632095			
Residual	67	56.45563782	0.842621					
Total	68	57.94202899						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	1.588785047	0.349373707	4.547523	2.34E-05	0.891432209	2.286137885	0.891432209	2.286137885
X Variable 1	0.157786139	0.118800577	1.32816	0.188632	-0.079340805	0.394913083	-0.079340805	0.394913083

**Exhibit 13: Regression Analysis between post purchase regret and wrong product choice**

Regression Statistics	
Multiple R	0.273415693
R Square	0.074756141
Adjusted R Square	0.060946531
Standard Error	0.894514848
Observations	69

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	4.331522497	4.331522	5.413342	0.023015818
Residual	67	53.61050649	0.800157		
Total	68	57.94202899			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	1.318543324	0.323781214	4.072328	0.000125	0.672273315	1.964813332	0.672273315	1.964813332
X Variable 1	0.250104646	0.107495189	2.326659	0.023016	0.035543352	0.464665941	0.035543352	0.464665941

**Exhibit 14: Regression Analysis between post purchase regret and foregone alternatives**

Regression Statistics	
Multiple R	0.024551179
R Square	0.00060276
Adjusted R Square	-0.014313616
Standard Error	0.929669367
Observations	69

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.03492516	0.034925	0.040409	0.841291435
Residual	67	57.90710383	0.864285		
Total	68	57.94202899			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	1.969945355	0.314303498	6.267653	3.02E-08	1.342592948	2.597297762	1.342592948	2.597297762
X Variable 1	0.019125683	0.095142875	0.201021	0.841291	-0.17078029	0.209031657	-0.17078029	0.209031657

**Exhibit 15: Regression Analysis between post purchase regret and under consideration**

Out of the 3 facets of post purchase regret analyzed, only the post purchase regret due to foregone alternatives comes out to be significant. Hence, only hypothesis **H1b- Regret due to foregone alternatives does not associate positively with the facets of post purchase regret** is rejected and it can be said that the regret due to foregone alternatives is significant for the respondents.

**Implication of the facets of regret**

*The consumers can face all the facets of regret at the same time, or different facets at different instances basis the purchase behavior they depict and platforms of purchase. Similarly, they can face different degrees of regret in all the facets. These regrets vary from consumer to consumer and from instance to instance.*

*It hence it very crucial for marketers and brands to understand which type of regret their consumers are facing the most and then they can make amends for the same. Say for example, in this scenario, in the online apparel purchase, the consumers face the regret due to foregone alternatives the most significantly and strongly and hence this is an impetus for the marketers to provide the consumers with apparel variety, quality and prices which are at par with the competition in the market such that the consumers do not end up evaluating what could have been instead of what is when they compare their purchase with the other available options.*

**4.5 Post purchase regret and remunerative measures**

The parameters of return policy, cash refund were recorded on a Likert scale and weighted from 5 being strongly agree to 1 being strongly disagree and were evaluated afterwards.

Correlation was established between the post purchase regret experienced and the tendency of consumers to stop visiting the website altogether.

	PPR	Rerain from visiting website
PPR	1	
Rerain from visiting website	<b>0.361178797</b>	1

**Exhibit 16: Correlation between post purchase regret and refraining from visiting the website**

The correlation coefficient comes out to be 0.36 which indicates a moderately strong positive relationship between the 2 parameters. It can be implied that consumers after experiencing a post purchase dissonance, tend to, to some extent refrain from visiting the particular website altogether. This can be something which the companies need to worry about, since this can lead to a churn among the existing consumers and hence bad image.

Hence, hypothesis **H1a- There is no significant correlation between post purchase regret experienced and refraining from visiting the website altogether** is rejected. There does exist a significant correlation between the two.

t-Test: Paired Two Sample for Means		
	Variable 1	Variable 2
Mean	4.420289855	2.028985507
Variance	0.658994032	0.852088662
Observations	69	69
Pearson Correlation	<b>-0.15387077</b>	
Hypothesized Mean Difference	0	
df	68	
t Stat	15.05130726	
P(T<=t) one-tail	1.23743E-23	
t Critical one-tail	1.667572281	
P(T<=t) two-tail	<b>2.47485E-23</b>	
t Critical two-tail	1.995468931	

**Exhibit 17: paired t-test between post purchase regret and remuneration offered by the company**

The p value for two tailed t-test is smaller than the alpha value of 0.05 which indicates a significant relationship between the post purchase regret and cash refund policies of a company. Moreover, the Pearsons’ correlation coefficient has a value of -0.015 which implies a weak but a negative relationship. As the cash refunds offered increase, the amount of post purchase regret experienced by the consumer reduces to some extent but this cannot be stated with surety and might vary from instance to instance. Hence, the hypothesis **H1b- There is no significant influence of cash refund policies on post purchase regret experienced** is rejected.

t-Test: Paired Two Sample for Means		
	Variable 1	Variable 2
Mean	4.434783	2.028985507
Variance	0.484655	0.852088662
Observations	69	69
Pearson Correlation	<b>-0.08855</b>	
Hypothesized Mean Difference	0	
df	68	
t Stat	16.59268	
P(T<=t) one-tail	6.62E-26	
t Critical one-tail	1.667572	
P(T<=t) two-tail	<b>1.32E-25</b>	
t Critical two-tail	1.995469	

**Exhibit 18: paired t-test between post purchase regret and return policies of a company**

The p value for two tailed t-test is smaller than the alpha value of 0.05 which indicates a significant relationship between the post purchase regret and return policies of a company. Moreover, the Pearsons' correlation coefficient has a value of -0.088 which implies a negative relationship. As the return policies offered increase, the amount of post purchase regret experienced by the consumer reduces.

Hence, the hypothesis, **H1c- There is no significant influence of return policies on post purchase regret experienced** is rejected.

## V. Conclusion

Consumers, ironically, behave irrationally as opposed to their notion of being rational decision makers. Impulse purchases are bound to have an impact on the overall purchase experience since in majority of cases, enough thought is not given to the purchases and hence they end up being dissatisfied with their decisions.

Moods and emotions are key drivers of impulse purchases and there have been various instances where bouts of happiness and sadness induce impulse purchases to alleviate the current state of mind. There exists a strong relation between the impulse purchase decisions and the regret faced afterwards and the marketers need to pay special attention to the facets of regret their consumers are facing to understand the areas they need to make amends in. With the dominance of online platforms, consumers are exposed to infinitely many choices to pick from and establishing unprecedented loyalty from the consumers becomes a humongous task. It is hence of critical importance that companies try everything they can to retain their consumers and provide them with a holistically satisfactory purchase experience.

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