



---

## **Impulsive Purchasing Pattern of Chocolates**

*B Sandeep<sup>1</sup>, Deepak Shyam<sup>2</sup>*

<sup>1</sup>Student, PES University

<sup>2</sup>Guide, PES University

---

### **ABSTRACT**

This research investigates why consumers buy chocolate on an impulse of the moment as is usual in the confectionery industry. We conducted questionnaires as well as observing individuals in stores to find out why they do this. We also learnt about the kind of people that do this, as well as what their lifestyles like and the reason they choose to do it. This data is beneficial for businesses looking to increase their chocolate sales. It gets them where to place chocolate, how to properly package it, as well as how to market it in order to attract these customers. This study improves understanding of how consumers behave while purchasing sweets and provides corporations with a better understanding of how to market the products.

Key words; packaging, impulse purchase, consumer decision on buying, emerging markets.

---

### **INTRODUCTION**

Impulsive purchasing habit overview and features.

Making unexpected and sudden purchases generally due to emotions, a need for rapid satisfaction, and a lack of full analysis of the potential repercussions is known as impulsive buying behavior. This conduct typically occurs in the absence of substantial information gathering or accurate consideration of the products feasibility, need or long-term worth.

Characteristics of impulsive purchasing behavior.

Immediacy; Impulsive buying is defined by its abrupt and unexpected nature, occurring frequently in the heat of the situation without prior purpose or planning.

Emotion triggers; Emotional are important in impulsive purchasing. Excitement, boredom, worry or enjoyment can all drive the desire to buy impulse purchases.

Lack of pre planning; Unlike planned purchases, which entails careful study and contracts, impulsive purchases lack considerable pore sight or research.

Engagement with low-cost products; Inexpensive goods or engagement or frequently related with impulse purchases. These are items that do not need a considerable financial investment or cognitive effort.

Immediate gratification; Impulse purchases bring an instant sensation of joy or pleasure. Customers get a wave of good feelings after receiving the item quickly.

Spontaneity; Buying decisions are often undertaken on the spur of the moment in reaction to cues in the shopping setting, like advertising campaigns, display of goods, or peer influence.

Post purchase regrets are guilt; After making a purchase, people may experience regrets or buyer's remorse. This is due to the knowledge that the product may be deemed superfluous or not worthy The money in the future.

While impulsive purchasing is connected with certain negative characteristics, it may also be a natural and occasionally joyful element of the consumer behavior. Furthermore, marketers must understand these qualities while developing procedures that relate to impulse procedures.

Theoretical frameworks for comprehending impulsive purchases.

The stimulus organism response (SOR) Framework is a popular theoretical paradigm for analyzing impulsive purchases Behavior, it provides a systematic view of how external signals cause interior reactions, which in turn influence a consumer's behaviors or responses. To expand the SOR model further.

Stimulus (S); It refers to the external factors or triggers that a customer comes into contact with in their environment. In the context of impulsive purchasing, these stimuli might include product displays, promotion, price reduction, or even the layout of goods in a store.

Organism (O); It symbolizes the consumer's internal condition or psychological characteristics. This includes the emotional condition, mood, personality features, and unique characteristics. A consumer's present mode (e.g., Enthusiasm, tension) And personality qualities (e.g., Impulsiveness) Are important elements in impulsive purchasing.

Response (R); It describes the consumer's obvious behavior or activity in the reaction to external factors and their internal condition. This might be the purchasing of a goods without much thinking or consideration in the sense of impulse buying.

It is critical to recognize within the SOR Paradigm, the fact that the organism acts as an intermediary among the stimulus and a response. This means that an individual internal state influences how they understand and respond to a stimuli.

Further theoretical frameworks for understanding impulsive purchasing.

1. Affect infusion model (AIM) Contents that emotions have a substantial impact on decision making and behavior. It implies that happy emotions may increase impulsive action.

2. Hedonic consumption idea; According to this idea, impulse purchases are made primarily of adonic of pleasure-seeking reasons. They get pleasure from purchasing and eating the stuff.

3. Customer Self-Regulation; This theory assumes that consumers have limited self-control to the extent that impulsive purchase occurs when self-regulation systems are weakened or overwhelmed by situational conditions.

4. cue utilization theory; It emphasizes the importance of environmental signals in influencing consumer behavior. It proposes that specific environmental signals might causeway bulky behaviors.

5. Goal directed behavior theories; According to these theories, Impulsive purchase occurs when people stray towards their initial shopping goals owing to environmental stimuli.

While these conceptual frameworks provide vital insights to impulsive purchasing behavior, these are not in comfortable and numerous factors may combine to influence impulsive purchases. Researchers usually use different theories to acquire a comprehensive understanding of consumer behavior in certain conditions.

### ***Factors impacting impulse purchases***

#### 1. Psychological factors

Emotions; Emotional states have a big impact on impulsive purchase behavior. Positive emotions such as joy and enthusiasm, negative emotions such as worry. Can motivate impulsive purchasing, which is frequently used as a kind of emotional copying.

Mood; A person's current emotional state heavily influences their purchasing decisions. Someone in a street mode, for example, could like luxury chocolates, whereas someone in a sadder mode might prefer comfort foods.

Arousal; High census situations like an exciting and packed store might stimulate impulsive purchase owing to greater excitement.

#### 2.environmental considerations

Store layout; The physical organization of a store as a significant impact on consumer behaviors. Features such as conspicuous endcap displays aisle location and the timing of foot traffic might lead to unintended purchases.

Displays; Eye catching and properly positioned displays, particularly close to checkout counters, can captivate a shopper's interest and encourage impulsive buying.

Promotions; Time sensitive provides discounts and buy one get one free bargain may generate a sense of urgency promoting customers to choose spur of the movement decisions.

#### 3.product specific elements

Packaging; Attractive and unique packaging is a great Attract for a product. Vibrant colors, captivating logos, and one-of-a-kind firms may all lead to impulse purchases.

Variety; Offering a varied selection of options might encourage impulsive purchasing. When customers are given a wide range of options, they are more inclined to make unanticipated selections.

Price; Special prize methods like as discounts are packaged offerings, might encourage impulse purchases. Customers may believe they are receiving a good price, which motivates them to buy.

It is critical to note that these aspects are frequently linked. A stores layout, for example, may create an ambience that enhance a shopper's feelings, while Simultaneously Showcasing carefully planned displays and promotions.

Furthermore, individual variances in buying habits are considerable. Some consumers may be more prone to impulsive purchase due to underlying personality features While others may be more disciplined in part, they buy.

Understanding these aspects helps marketers to strategically place items and construct retail environments that encourage impulsive purchases. It is critical to note it while these reasons might contribute to impulsive purchasing ethical marketing methods must be followed to ensure customers well-being and happiness.

---

## LITERATURE REVIEW

The study looks at the influence of physical characteristics on foot packaging, especially strawberry chocolate packaging. Users were asked to pick their favorite design from a set of altered visual components. Graphics, trends and colors were shown to have a substantial effect on preferences with photography favored over residents, concrete designs prefer over abstract and vibrant colors chosen over boring.

Antonija Kovac

This study looks at how the visual scan path of chocolate snack packages impacts impulsive purchase. There are two distinct seeing patterns; First examining important components and then prioritizing top left. Design congruence magnifies the back various order depends the scan port.

Ruben rebollar, ivan lidon, Javier martin, Miriam puebla

The study looked at the effect of psychographic characteristics on the probability for purchasing Indian vs international chocolate brands. And the log regression technique was used to gather information from 311 urbanized Indian customers. The findings revealed that Indian customers of brands were more regular and heavy chocolate shoppers with gifting players a significant role.

Deepak Chawla and Neena Sondhi

An Investigation of 35 Melbourne Shops Discovered that food display are common near checkouts, end of aisle screens, And Island dumpsters, contributing to greater usage and obesity rates, particularly in low-income neighborhoods. According to this study, increasing knowledge of dangerous food products in supermarkets might help lessen such problems.

Lukar E Thornton, Adrian j Cameron

The purpose of this research is to look at the consumption of chocolate among Indian consumers with an emphasis on cultural importance and value proposition. According to a cross sectional pole, younger customers are looking for value and brand while gifting being the most important factor.

Deepak Chawla, Neena Sondhi

Using the double mediation hypothesis model, this study explores impulsive purchase in chocolate item advocated by celebrities. According to the study, customers buy things based on the impulses and emotions generated by the advertisements and brand was number apparent relationship between stardom and brand

Aakash kamble, Aatish zagade and nayna abhang

The article investigates how the covid-19 epidemic has affected impulsive product purchase behavior, emphasizing the ability of digital innovations such as blockchain technology to boost sales in emerging nations

Achint Nigam, Abhishek behl, Vijay Pereira, Shreya sangal

When people make unplanned purchases on the spur of the moment, they are typically influenced by emptions and advertising communication. This article examines the influence of communication mix together, promotions, sales, personal selling, social media, and direct marketing on consumer impulse purchases Indore, India.

Verma Priyanka and Verma Rooble

Individual with exhausted self-regulatory skills had larger impulse purchasing inclinations increased expenditure and buys in unexpected conditions according to the study. This shows that the availability of self-regulatory resources increases resistance to impulsive purchase impulses.

Kathleen D. Vohs, Ronal J. faber

The study investigates millennials perceptions about product attributes such as clear labelling, verified ethical sources and the sugar level of cholate confections. The findings suggest that there is little concern for ethical concerns yet there is little distinction among variables.

Michael E. young, Anthony W. McCoy

Two investigations focused on cognitive and emotional components to validate a 20 items scale evaluating impulsive purchase inclination. The scale was connected to the frequently of impulsive purchase and & recent purchases. The inclination to buy on impulsive was shown to be connected to personality-based differences among people assessments such as the big five an to be substantially impacted by extraversion.

Bas Verplanken & Astrid Herabadi

This paper investigates the function of normative assessments in modulating the link between impulsive buying qualities and consumer purchasing habits. It demonstrates that spontaneous unreflective purchasing can be a factor examining purchasing impulsiveness implying that normative judgements might limit this relationship.

Danes Jaya negara Basu Swatha Dharmmesta

The study discovered that customer attention or good feelings are not necessarily associated with eye desires on chocolate box components. Fixation of familiar design were good feelings but unfamiliar packaging was not.

Nadeesha M. Gunaratne

Individuals with healthful intentions consume more chocolate and have a body mass index that is higher due to difficulties controlling goal incongruent impulses which causes overeating.

Julia L. Allan, Marie Johnston

The study investigates the effect of television advertising & displays in stores on chocolate sales concluding that both approaches improve consumer acquisition and sales however the lack of advertising may have an adverse impact on the business.

Patalinghug Jason C.

### **PRIMARY OBJECTIVE**

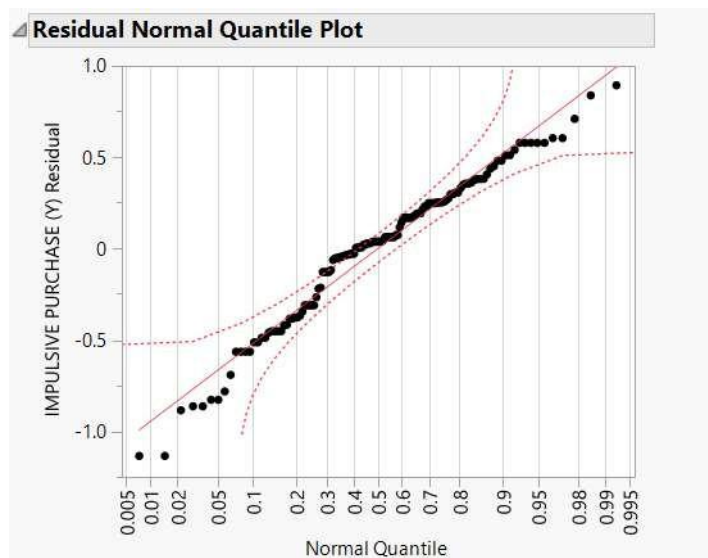
Identifying key information and incentives, understanding customer demographics and psychological identities, assessing in store environmental influences for informed analysis.

### **METHODOLOGY**

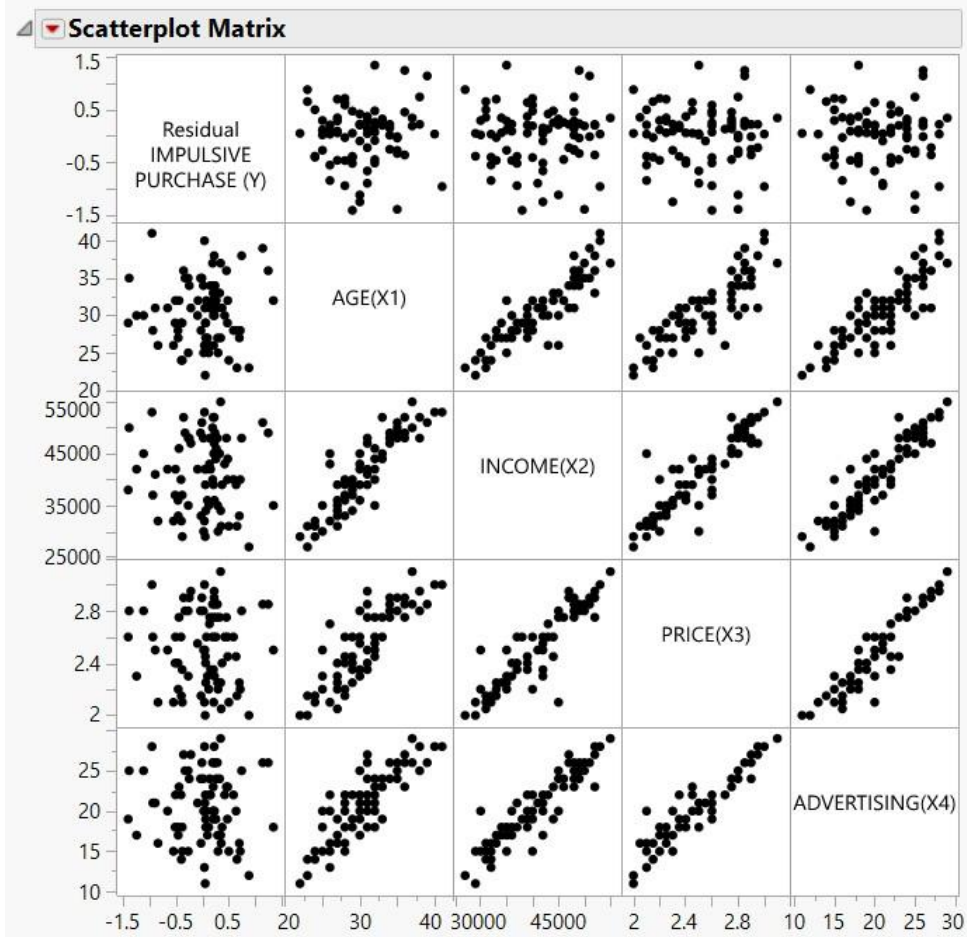
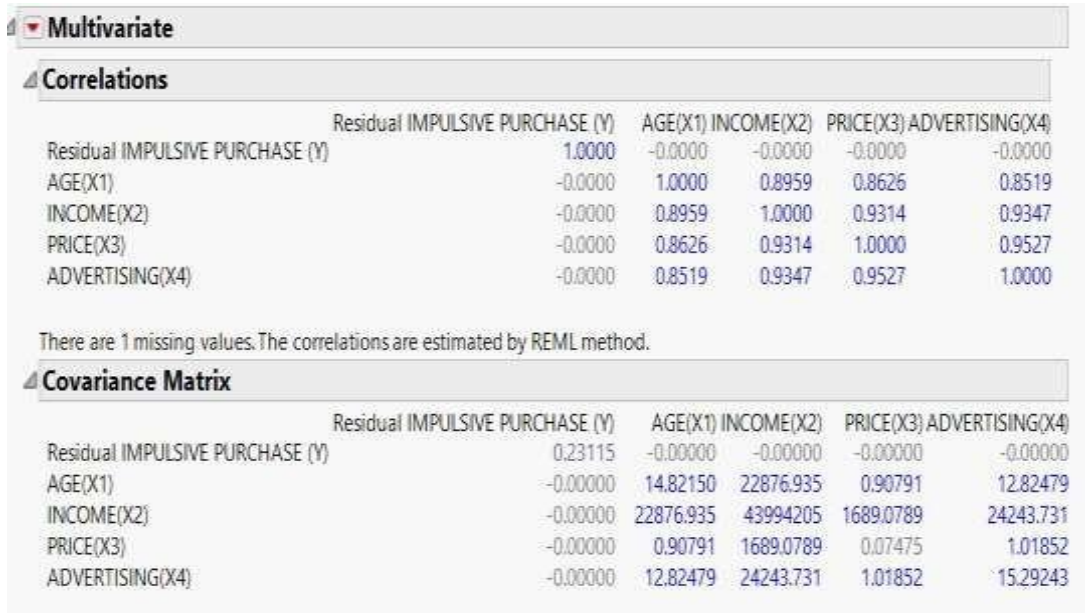
The research methods use here is multiple regression analysis. This analysis is made in order to focus on the Impulsive purchasing pattern of chocolate. For this we have taken the dependent variable to be Impulsive purchase, which is made by a consumer independent variable here are age, income, price, and advertising. Here all these factors influence the purchasing power of this chocolate, as many of them prefer it to be age wise, for mostly for children's and income wage, where parents choose this chocolate to gift or buy for their children's. And based on the price, the children may also purchase them and the. Advertising through which most of the income earned as well as the interest will be earned for the children. Multiple regression equation will help in knowing the dependency on independent variables. The data is collected on 135 variables from age group of more than 15 years and less than 45 years and mostly these are the targeted students from graduation and post-graduation. We need to check the accuracy of the data collected through the regression analysis. So, after the research will find the result and the analysis will be completed by doing this analysis or else, we can use ARIMA model for the same.

### **RESEARCH DESIGN**

1) **Normal Quantile Plot:** - This graph shows that there is no outlier. The quarter plot is within the given area, so the residuals from this will be available for better response for the data collected as it ranges within the certain area of curve. Hence the first assumption is satisfied.



2) **Covariance matrix:** - The difference between the residuals and the independent variables should be zero. From this the second assumption is also satisfied. So, we will go on to prove the next criteria.



3) **Mean of residuals** = 0 ( $\sum(x-\bar{x})$ )

4) **Variance** must be a positive integer.

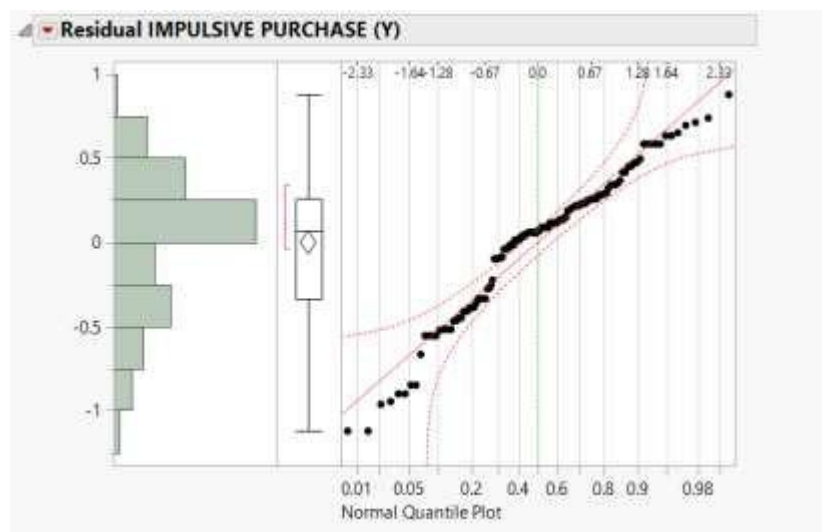
5) **N** must be greater than the number of parameters.

Residual IMPULSIVE PURCHASE (Y)		
	Mean	Variance
	0.00	0.17
		N
		135.00

The residuals mean must be equal to 0 as compared with the independent variable. The variance of the residual should be positive number which is greater than zero. N that is number of variables must be greater than the number of parameters that is the independent variables.

6) **Kurtosis and Skewness:** - Use of this can be made to ascertain the normality.

7) **Distribution must be normally fitted:** - That must be properly distribution of variables in the data given and in case, if there is any outlier, it needs to be accessed before and removed from the distribution as soon as the residuals are provided. The value of skewness lies between minus 0.5 to 0.5. The focus of the kurtosis is minus 10 to 10. So, it would be a better fit if these lies within the particular region. In this it is a negatively skewed but we can say that it is a normal fit.



#### Quantiles

100.0%	maximum	0.8772092
99.5%		0.8772092
97.5%		0.7054277
90.0%		0.483328
75.0%	quartile	0.2574035
50.0%	median	0.0708404
25.0%	quartile	-0.334413
10.0%		-0.53527
2.5%		-0.95473
0.5%		-1.120106
0.0%	minimum	-1.120106

#### Summary Statistics

Mean	0.0025004
Std Dev	0.4072056
Std Err Mean	0.0350467
Upper 95% Mean	0.0718166
Lower 95% Mean	-0.066816
N	135
Skewness	-0.594068
Kurtosis	0.1923591
N Missing	1

8) **Multi collinearity:** - There is a multicollinearity between the variables. That means, if the two independent variables have a same impact on the dependent variable, but in this case, there is no multicollinearity.

Summary of Fit						
RSquare			0.968298			
RSquare Adj			0.967323			
Root Mean Square Error			0.407248			
Mean of Response			10.88148			
Observations (or Sum Wgts)			135			
Analysis of Variance						
Source	DF	Sum of Squares	Mean Square	F Ratio		
Model	4	658.54306	164.636	992.6722		
Error	130	21.56064	0.166	<b>Prob &gt; F</b>		
C. Total	134	680.10370		<b>&lt;.0001*</b>		
Parameter Estimates						
Term	Estimate	Std Error	t Ratio	Prob> t	Std Beta	VIF
Intercept	-4.035021	0.54394	-7.42	<b>&lt;.0001*</b>	0	.
AGE(X1)	-0.037704	0.021367	-1.76	0.0800	-0.06384	5.3683279
INCOME(X2)	9.0954e-5	0.000019	4.80	<b>&lt;.0001*</b>	0.268209	12.821393
PRICE(X3)	2.7255093	0.475003	5.74	<b>&lt;.0001*</b>	0.333533	13.85584
ADVERTISING(X4)	0.2630914	0.032998	7.97	<b>&lt;.0001*</b>	0.457651	13.511007
Effect Tests						
Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F	
AGE(X1)	1	1	0.516396	3.1136	0.0800	
INCOME(X2)	1	1	3.815812	23.0075	<b>&lt;.0001*</b>	
PRICE(X3)	1	1	5.460348	32.9232	<b>&lt;.0001*</b>	
ADVERTISING(X4)	1	1	10.542785	63.5678	<b>&lt;.0001*</b>	

9) **Auto correlation:** - The time lag should not be there between the variables, if the autocorrelation variable is close to it, is a good fit. That means that exists no autocorrelation. So, there is a proper equal distribution of data. There would be no lag between the variables. Durbin Watson test is required for this process.

Durbin-Watson				
Durbin-Watson	Number of Obs.	AutoCorrelation	Prob<DW	
2.2265165	135	-0.1270	0.9130	

From all the assumptions we can say that the data is normally fitted and we will get a better graph from this and we can solve the regression equation from the following graphs using the parameter estimates that has been given.

## RESEARCH ANALYSIS

Here the multiple R is 0.968298 which indicates the positive and strong relationship between the dependent variable (impulsive purchase) and independent variable (age, income, price, advertising).

R square (coefficient of determination); here the R square is 96.82% of impulsive buying is influenced by the age, income, price, advertising.

P value; the P value in this regression model is 0.0001 which is lower than the 0.05. hence the null hypothesis is accepted and alternative hypothesis rejected.

$$Y = -4.035021 - 0.037704 X_1 + 9.0954 X_2 + 2.7255093 X_3 + 0.2630914 X_4$$

$X_1$  = every 1 unit increase in age lead to decrease 0.037704 amount of impulsive buying.

$X_2$  = every 1 unit increase in income lead to increase 9.0954 amount of impulsive buying.

$X_2$  = 1 unit of increase in price lead to increase 2.7255093 amount of impulsive buying.

$X_3$  = every 1 unit increase in advertising lead to increase in 0.263091 amount of impulsive buying.

---

## FINDINGS

The study of impulsive chocolate purchase behaviors discovered major relevant variables which is age, income, price, & advertising. Based on a primary data acquired via a google form with 135 replies the study discovered that firms may increase chocolates selling by targeting a younger population with greater incomes and using engaging packaging and marketing methods. Overall, in this study emphasizes the importance of knowing customer behaviors and applying that knowledge to create effective marketing strategies. Used JMP software to analyze the research.

---

## CONCLUSIONS

This study thoroughly investigated the impulsive purchasing habits associated with chocolate purchases exposing critical influences of consumer decisions. Emotional triggers, the demand for quick desire and a lack of deep pre planning are all key causes of impulsive buying. Environmental variables such as store design, displays and advertising campaigns significantly increase impulsive purchasing. Specific product qualities such as packaging design and price strategies can have a significant impact on impulsive purchase behaviors. The study used multiple regression analysis to find a significant relationship among age, the income, the price and advertising & impulse chocolate purchases. The results highlight the need of developing promotional strategies that appeal to a wide range of consumer demographics. Understanding consumer preferences and properly using this knowledge may result in optimal product placement and increased sales. Finally, this research provides organizations with useful data for refining their advertising strategies and efficiently increasing chocolate sales.

---

## REFERENCES

<https://doi.org/10.1016/j.foodqual.2014.08.002>

<https://doi.org/10.1086/338209>

<https://rdcu.be/dmSHD>

<https://doi.org/10.3390/su12145586>

<https://doi.org/10.1509/jmkr.48.1.196>

<https://doi.org/10.55299/ijec.v2i2.544>

<https://doi.org/10.1108/IMDS-12-2021-0799>

<https://doi.org/10.1016/j.ijgfs.2023.100746>

<https://doi.org/10.1086/510228>

<http://dspace.ewubd.edu/handle/2525/2443>

<https://doi.org/10.1016/j.foodqual.2015.11.014>