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Demographic Profile Role In Confectionary Products – Special Reference With Chocolate Consumers.

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Abstract

The present design is based on the theory of planned behavior and tests the demography variable role in TPB's major variable. The study examined age, education, and income as independent variables and attitude towards chocolate buying intention and buyer behavior as dependent variables. Results showed no significant differences in buyer behavior among education and income groups. However, younger respondents showed higher buyer behavior. No significant differences were found in attitudes towards chocolate among different age and income groups. High-income consumer groups showed significant differences in buying intentions.

Keyword - Attitude, buying intention, buyer behavior

Introduction

Rudi and Cakir (2017) study investigates the influence of advertisements on children's preferences for confectionery products like chocolate, candies, chewing gum, and cake/pastries, and the associated health problems, as children play a crucial role in their parents' purchase decisions. Unplanned purchases, particularly of large snack formats, are a significant issue for public health. Large sharing bags, often marketed as economical or convenient, can encourage impulsive buying behavior, leading to increased caloric intake and "mindless eating." The placement of confectionery and savory snacks near checkout aisles

can also contribute to overconsumption, contributing to obesity, diabetes, and heart disease. Addressing this issue requires education, policy recommendations, and retail practices that advocate for healthier snack options at checkout counters or discourage large bags in impulse-buy areas. The rise in sharing bags raises concerns about portion inflation and overconsumption, contributing to the obesity crisis, as larger portions can be a viable alternative to standard sizes (Flemming, 2013). Grofelnik and Vukasovic (2024). Dark chocolate's primary purchase driver is taste, with marketing strategies emphasizing its rich flavor. Consumer's value higher cocoa content, which is associated with authenticity and quality. Health benefits, such as antioxidant properties, are seen as a healthier alternative. Brand, habit, and packaging have minimal influence, but brands with established reputations can benefit from consistent quality. Packaging should display detailed product information, nutritional benefits, ethical certifications, and country of origin. Building trust in producers is crucial for quality and safety.

Kohler (2024) dark chocolate's primary purchase driver is taste, with marketing strategies emphasizing rich flavor, higher cocoa content, and health benefits. Brands with established reputations benefit from consistent quality, detailed packaging, and trust in producers. Kozelová, Matejková, Fikselová, and Dékányová,. (2014). Chocolate consumption is moderately correlated with economic activity, with respondents mainly earning from high-middle-income families and Women consuming it highly compared to male shoppers. Beganovic and Beganovic (2019). The study reveals that consumer satisfaction is the most crucial factor for brand loyalty in the dark chocolate market, followed by impact and value. Brand image doesn't significantly impact loyalty, but it significantly affects customer satisfaction. The research highlights the need for companies to improve their brand image to create loyalty and influence consumer purchases. Del Prete and Samoggia (2020). Chocolate consumption and purchasing behavior review: Research issues and insights for future research, four categories: personal preferences, product attributes, socio-demographic factors, and economic attributes. The results show a strong focus on Fair Trade in chocolate, but price and promotion are under-investigated. This research can help chocolate businesses create new channels and sales opportunities.

Theoretical background of the study

The Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action, guiding understanding and predicting behaviors beyond an individual's control. It identifies three key constructs: attitudes, subjective norms, and perceived behavioral control. These elements shape behavioral intentions, predicting actual actions. TPB is particularly useful in understanding health-related behaviors, as they often involve varying degrees of personal control influenced by external factors (Ajzen,1991). The Theory of Planned Behavior (TPB) is a psychological framework that explains human actions based on attitudes, subjective norms, and perceived behavioral control. Favorable attitudes increase the likelihood of engaging in a behavior, while negative attitudes decrease it. TPB is applied to eating behaviors, such as healthy eating, dietary restraint, and consumption of specific foods. Addressing these factors can help design interventions to encourage healthier eating habits or other desired behaviors, such as increased fruit and vegetable intake

or reduced processed food consumption. Different age groups of consumers in fast food (Boylan et al., 2017); confectionary products Ebadi et al., 2018). These studies suggest confectionary product buying is an attitude-based one and against these results, Kashif et al. (2015) consumers' decisions on food products and confectionary products depend on some rationality. Kontor, Soos, Balsa-Budai, Kovacs, and Szakaly (2025) results underscore the significant impact of external cues, such as unit size and packaging, on consumer behavior. This influence persists even when consumers' knowledge or emotions remain unaffected. The findings reinforce previous research, which has shown that larger unit sizes tend to drive higher consumption. Notably, in this experiment, unit size emerged as a more powerful determinant of consumption than packaging. A noticeable discrepancy between actual and perceived consumption highlighted the psychological effect of smaller unit sizes.

The present study uses important variables in the buying process: attitude, buying intention, and buyer behavior as dependent variables, and demographic variables, family income, education, and age of the respondent, considered as independent variables. In the second part of the research, attitude, buying intention, and buyer behavior are considered dependent variables, and advertising impact is considered an independent variable. Akyurek, Altınok, and Karabay (2024) suggest that even when consumed together, neither the tested amount of cocoa flavanols nor caffeine produces acute effects that are consistently measurable on cognitive tasks, particularly those targeting attention and working memory. This indicates that, despite the known individual effects of these compounds on cognition, their combined consumption in this study did not lead to a noticeable or robust improvement in these specific cognitive domains. The findings imply that either the dosages used were not sufficient to elicit a significant response, or that the cognitive tasks employed were not sensitive enough to detect potential subtle effects. Benton, D., Greenfield, K., & Morgan, M. (1998) Chocolate bars are often consumed due to a desire for them, rather than guilt or dissatisfaction with their bodies. High guilt can lead to extreme eating behaviors, such as binge eating and vomiting.

H1) There are no significant differences in attitudes towards chocolate across various age groups of respondents.

H2) There are no significant differences in attitudes towards chocolate among different income groups.

H3) There are no significant differences in attitudes towards chocolate among different education groups

Gender role in the confectionery market

Johnson and Southwell (2017) Consumers who are under the age of 40 are highly influenced by advertisements. Sondhi and Chawla's study suggests that young and college students prefer national brands. Mai (2014) The study reveals that ethical consumption of Fair-Trade confectionery is universal, with both men and women showing similar levels of WTP. Age-based variations are minimal, suggesting that the value placed on ethical certifications is not significantly influenced by generational preferences. Other factors like socioeconomic traits and personal values may also influence WTP. Businesses can adopt a

universal marketing approach, focus on values, segment consumers based on psychographics, and ensure Fair Trade products are accessible across various retail channels.

Income role in the buying process

Results on how consumers' income impacts chocolate consumers' behaviour is contradictory. Kozelová, Matejková, Fikselová, Dékányova (2019) suggest that income doesn't significantly impact chocolate's taste, quality, or appeal, suggesting it's universally accessible and enjoyable. However, higher incomes positively influence consumers' willingness to pay for premium or luxury chocolate products, as disposable income allows for indulgence in non-essential purchases. Annunziata (2015) High-income consumers prioritize quality, exclusivity, and brand reputation, preferring premium or artisanal chocolates with unique flavors and ethical sourcing. They are willing to pay more for organic or healthier alternatives. Although they buy less frequently, their purchases are higher value per unit. Rousseau (2015) High-income consumers are more likely to choose certified chocolate options, such as organic, fair trade, or sustainably sourced products, due to their increased willingness to pay for ethical and environmental considerations. This preference is driven by their ethical values, affordability, and social signaling, as they can absorb the premium costs associated with certified goods.

H4) There are no significant differences in the buying intention of chocolate across various age groups of respondents.

H5) There are no significant differences in the buying intention of chocolate among different income groups.

H6) There are no significant differences in buying intention of chocolate among different education groups

Van den Heuvel, Guy, Taylor, and Appleton's (2024) study suggests that participants' perceptions of consumption standards are related to their age, income, and gender. In general, women, older people, and those with greater incomes were linked to smaller meal patterns and lower energy-dense diets. On the other hand, men, younger adults, and those with lower incomes were often linked to higher energy-dense meals and meal habits. All members of the demographic sample adhered to these consumption guidelines.

H7) There are no significant differences in sentiments towards chocolate amongst various education groups.

H8) The intention to purchase chocolate does not significantly differ between various education groups.

H9) The purchase habits of chocolate do not considerably differ amongst various education groups

Research methodology and Statistical analysis

Sampling method - The proportion of the population that consumes chocolate is unknown or has not been previously estimated in the study area. Therefore, the researcher employed a formula to determine the minimum required sample size for the study. A confidence level of 95% (Z) and a margin of error of 4% (E) were used in this calculation. The sample size was determined using the formula for estimating the

population proportion when the proportion (PPP) is unknown. The fixed sample size is 432. The sample units were selected around Thanjavur district. A simple random sampling method was used to collect samples. The present uses descriptive statistics and one-way ANOVA to find mean differences among the various groups of respondents

Results of one-way ANOVA and Scheffe's Post – hoc

The descriptive statistics indicate that consumers' attitudes toward chocolate are positive, with the second-highest mean score of 3.68. A one-way ANOVA was conducted to determine whether there were significant differences in the mean scores of the dependent variable across the groups. Post-hoc tests were performed to identify where these differences occurred (Pallant, 2007). Since the present study includes groups of unequal sizes, the researcher selected Duncan's post-hoc test, which is most suitable for such cases.

Table 1: Tests of Between-Subjects Effects

Table 1 Dependent Variable: Attitude towards chocolate

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Observed Power
H1 Age	1.387	4	.222	.480	.761	.165
H2 Income	12.75	4	4.252	5.52	.010	.971
H3 Education	3.245	4	.836	1.25	.277	.394

Source: Primary Data

The researcher initially considered age, income, and education as independent variables and attitude toward chocolate as the dependent variable in this group analysis. The results for hypotheses H1, H2, and H3 are illustrated in the above table. Hypotheses H1 and H3 were accepted at the 5% significance level, indicating that the age and education of respondents across different groups do not significantly differ in their attitudes toward chocolate. The significance values for age and income are 0.761 and 0.277, respectively, which are comfortably above the required p-value threshold of 0.05. However, in the case of education, the significance value (0.010) is below the required p-value threshold of 0.05, leading to the rejection of H2. Duncan's post-hoc test for multi-group comparisons revealed that the postgraduate consumer group significantly differs from the school-level and graduate-level education consumer groups.

Table 2: **Dependent Variable: Buying Intent**

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Observed Power[b]
H4 Age	35.71	4	9.169	8.09	.001	.999
H5 Education	3.108	4	1.003	.865	.434	.242
H6 Income	6.187	4	1.372	1.37	.261	.421

Source: Primary Data

In this analysis (Table 4.2), the researcher considered age, education, and income as the independent variables and the buying intent of intention of chocolate as the dependent variable. Hypotheses H5 and H56 were accepted at the 5% significance level, indicating no significant differences among respondents of

various education and income groups regarding their buying intention of chocolate. The significance values for age and education are 0.434 and 0.261, respectively, which are above the required p-value threshold of 0.05. However, for age, the significance value (0.001) is below the required p-value threshold of 0.05, leading to the rejection of H4. Deccan's post-hoc test for multi-group comparisons revealed that high-income consumer groups significantly differ from low-income consumer groups.

Table 3: **Dependent Variable: Buyer Behavior**

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power
H7 Age	33.71	4	9.079	8.59	.002	.051	.899
H8 Education	3.108	4	1.013	.865	.464	.004	.242
H9Income	6.187	4	1.472	1.27	.251	.009	.431

Source: Primary Data

In this analysis (Table 3), the researcher considered age, education, and income as the independent variables and buyer behavior as the dependent variable. The results for hypotheses H7, H8, and H9 are illustrated in the table below. Hypotheses H8 and H9 were accepted at the 5% significance level, indicating no significant differences in the education group of respondents and income groups regarding their buyer behavior. The significance values for education and income are 0.464 and 0.251, respectively, which are comfortably above the required p-value threshold of 0.05. However, for age, the significance value (0.002) is below the required p-value threshold of 0.05, leading to the rejection of H7. Duncan's post-hoc test for multi-group comparisons revealed that younger respondents have a significantly higher buying buyer than other respondent groups.

Conclusion

The study found no significant differences in attitudes towards chocolate among different age and income groups. However, the postgraduate consumer group differed significantly from school-level and graduate-level education groups. The independent variables were age, education, and income, with the dependent variable being buying intention. The study also found no significant differences in buying intentions for chocolate among different education and income groups. However, high-income consumer groups showed significant differences in their buying intentions.

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