



Relationship between Consumer Insights and Purchase Patterns across Different Generations: A Quantitative Approach

Max Boada, Daniel Burneo, Francisco Morocho, Janeth Gutiérrez

Faculty of Law, Social Sciences, and Business Administration, Nacional de Loja University, Loja, Ecuador

Email: max.boada@unl.edu.ec, daniel.burneo@unl.edu.ec, francisco.morocho@unl.edu.ec, janeth.gutierrez@unl.edu.ec

How to cite this paper: Boada, M., Burneo, D., Morocho, F. and Gutiérrez, J. (2023) Relationship between Consumer Insights and Purchase Patterns across Different Generations: A Quantitative Approach. *Open Access Library Journal*, **10**: e10867. <https://doi.org/10.4236/oalib.1110867>

Received: October 10, 2023

Accepted: November 27, 2023

Published: November 30, 2023

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Abstract

This study provides a detailed analysis of the differences in consumer insights and purchasing patterns among different generational groups: Baby Boomers, Generation X, Millennials, and Generation Z in the city of Loja, Ecuador. The research objective was to demonstrate that these consumption patterns and perceptions are not uniform across different generations, which can have a significant impact on marketing and sales strategies. A probabilistic sampling design with simple random sampling was employed, segmenting the population by age. To measure consumer insights and purchasing patterns, a Likert scale was used, and the internal consistency of responses to items in each scale was evaluated using Cronbach's alpha coefficient. The collected data were analyzed using the Kruskal-Wallis test to assess differences between the groups. The findings indicate that there are significant differences in consumer insights and purchasing patterns among the different generational groups. Dunn's post-hoc tests revealed significant differences in several pairs of generations both in "General Consumption Insights" and "Purchase Patterns according to Generational Consumer Insights". These results suggest that marketers and strategists should customize their approaches for each generational group, conduct ongoing studies to stay abreast of changing consumption trends, and potentially focus their efforts on generational groups that show greater affinity with their products or services. Simultaneously, the implementation of multi-channel marketing strategies and consumer education may enhance the effectiveness of marketing and sales initiatives. Overall, this study underscores the importance of considering generational differences when designing market strategies and provides valuable insights that could help businesses target their marketing efforts more effectively.

Subject Areas

Business Analysis, Business Communication, Consumer Behavior, General Business Research, Managerial Economics, Marketing

Keywords

Generational Differences, Consumer Insights, Purchase Patterns, Marketing Strategies, Consumer Behavior

1. Introduction

In the contemporary market environment, deciphering consumer behavior has become imperative to achieve business triumph. Purchase patterns and insights derived from consumption are crucial components of this behavior, providing an invaluable compass for organizations' marketing and sales tactics. As we move forward into an era characterized by increasing demographic diversity, understanding and connecting with different generations has taken on significant relevance.

This article delves into exploring how generational discrepancies shape consumer insights and purchasing patterns. We focus on the variables of tastes, preferences, perceptions, emotions, beliefs, and motivations, along with the varied dimensions of the shopping experience, and how these variables intertwine and differ among generations.

The consumer environment comprises both internal and external factors influencing their purchasing behavior. This study focuses on the consumer's internal factors, as they provide valuable insight for analysis. According to the consumer behavior model of Blackwell, Miniard & Engel (2003) [1], external factors relate to culture, social class, personal influences, family, and economic situation. In contrast, internal factors are linked with individuals' psychological sphere, including their perception, resources, motivation, knowledge, attitudes, personality, values, and lifestyle.

At present, understanding consumers, capturing their desires from an internal perspective, has become challenging due to the diverse factors affecting their purchase decision (Yagual, 2018) [2]. The study of consumer behavior is crucial for businesses to orient themselves towards the segment that best suits their products or services. The insight represents the truths about how the consumer acts and thinks, and it shows the emotional and symbolic connection the consumer establishes when selecting a product or service. An insight is a truth that creates opportunities for innovation, branding, and communication, which becomes vital in a marketing strategy for the industry.

Lévano (2021) [3] argues that generational analysis plays an important role in consumer behavior, helping organizations make more accurate decisions. The rapid change in consumption forms allows for identifying deeper needs, or in-

sights. The knowledge of these hidden needs, consumer tastes, and preferences, and focusing strategies on that market segment, considering the internal motives leading to the consumption of a product or service, is of utmost importance in the marketing world.

1.1. Marketing and Consumer Insights

According to Kotler & Armstrong (2012) [4], marketing is conceived as a process by which companies create value for their customers by building strong relationships, aiming to get value from them in return. In a society constantly evolving in areas such as technology, culture, and social, there has been an increase in consumption in the markets. In this dynamic context, marketing stands as an effective tool to maintain contact with consumers of specific products or services. Thus, marketing, through its various actions, allows companies to establish and maintain fluid communication with their customers, consolidating their loyalty (Isaac, Keelson, & Yiadom, 2023) [5].

Théodore Levitt proposes a vision of marketing that focuses on designing commercial policies that stem from the essential function of companies: to create and retain customers. From this perspective, marketing allows companies to maximize all their resources (Suay, 2015) [6].

It was in the 80s when marketing began to incorporate an experiential vision, aiming to delve deeper into understanding consumer purchasing behavior. The value of emotions as a crucial element in the purchasing process was recognized, which oriented marketing towards a postmodern consideration of people as emotional beings interested in having pleasant and enjoyable consumption experiences. The essence of experiential marketing lies in the “consumer experience,” a term whose conceptual origin refers to the circumstances or events that a person experiences (Camacho, 2012) [7].

López-Rúa (2015) [8] argues that sensory marketing aims to generate a unique and incomparable shopping experience. Tasting, smelling, seeing, listening to, and feeling a product is the result of a strategy aimed at the totality of consumer sensitivity, with the purpose of stimulating all possible fibers and capturing their whole body. The intention is to attract customers through auditory, olfactory, gustatory, among other stimuli. The ultimate goal is for the consumer to be motivated to try the product or service being promoted, that is, to buy it. In this way, sensory marketing is configured as a strategy focused on intensifying consumers’ emotions and sensations. Marketing strategies, such as experiential and sensory marketing, play a crucial role in generating insights. These insights provide a deep understanding of consumers’ tastes, preferences, and perceptions, which is fundamental for the development of effective marketing strategies aligned with the needs and expectations of consumers. By focusing on the consumer experience and perceptions, companies can design products and services that meet consumer needs and expectations, which in turn can lead to greater market success.

1.2. Consumer Behavior

Consumer behavior is a complex field of study that considers numerous influencing variables in the purchasing process. Among these are the motivations and experiences of consumers that can be stimulated by the product catalog and offers (Mercado, Perez, Castro, & Macias, 2019) [9]. The study of this behavior involves not only the observable behaviors of consumers, such as when and how they make their purchases, but also intangible factors such as values, perceptions, tastes, preferences, emotions, and memory of shopping experiences (Espinela, Castro, & Espinosa-Pérez, 2019) [10].

This behavior represents a dynamic exchange process between consumers and companies, being a sequence of stages that reveals the causes, variations, and outcomes of consumption actions (Maya, 2001) [11]. Moreover, social and family contexts also exert a strong influence on consumer behavior, transmitting values, norms, and consumption behaviors (Hernández, Estrada, & Torres, 2013) [12].

Deepening into consumer behavior at a personal level leads us to the study of insights, which are deep understandings about the beliefs, perceptions, sensations, and emotions of the audience on which the brand-product is backed, strengthening the bond with the consumer (Salgado Beltrán, Utrillas Rosales, & Galindo Rosas, 2014) [13]. An insight should allow accurate identification of consumers, illuminate market opportunities, and provide an understanding of people's experience (Roberto-Partner of midsize national IM company).

Despite the importance of the concept, there is a bibliographical scarcity in the definition of "Insights". However, some authors emphasize the need to meet the multiple needs of the consumer, taking into account influencing factors both external (cultural, social, group, and family references) and internal (motivation, perception, learning, personality, and attitudes) (Lévano M. A., 2021) [3].

Insights as Study Variables The term "insight" originated in psychology, specifically in Freud's psychoanalytic theory, alluding to the content and meaning of dreams. Although there are discrepancies about its origins, whether Freudian, American, or European, it is important to note that insight is the goal of psychoanalysis to make the unconscious conscious. In more recent times, the term has gained importance in the field of marketing and advertising communication. It is understood as the set of perceptions, experiences, beliefs, customs, and subjective truths that the consumer associates with a brand or product, as well as with a specific consumption situation. Its integration into advertising has a positive impact by facilitating the identification of the consumer with the brand, increasing its notoriety, truthfulness, and power of persuasion (López, 2008) [14].

For this study, the following variables will be considered as insights for analysis:

Tastes: To understand consumers, it is crucial to know the tastes that influence their purchasing decision. Innovation plays a crucial role in the products and services that companies offer, taking into account the tastes, preferences, and needs of consumers based on their personal characteristics, such as gender, age, customs, and culture. With this information, organizations can increase

their sales, benefiting both themselves and consumers (Janeth, Maribel, Yojana, & Lorena, 2020) [15].

Preferences: Consumer behavior theory describes how consumers distribute their income among the goods and services they need, and how these purchasing decisions determine demand in the market. One aspect to consider is the preference variable, trying to practically identify why people prefer one good over another (Daniel & Bringas, 2022) [16]. Psychology provides theoretical approaches, methods, and research techniques to the study of consumer behavior, responding to the various problems posed by the study of consumption behavior, including how product, brand, store, and ad preferences are formed and changed.

Perceptions: Perceptions are one of the most important variables in consumer behavior. According to López (2007) [17], perceptions can vary between individuals exposed to similar stimuli, as the interpretation of these depends on the individual's previous experiences and culture. Perceptual stimuli can be physical or come from the individual. Understanding the perceptions and expectations of customers is essential to improving the quality of a company's service (Montesdeoca Calderón, Zamora Cusme, Álvarez Vidal, & Lemoine Quintero, 2019) [18].

Emotions: Emotions are subjective experiences and relevant to the consumer, based on deep motivations. These, when used in persuasive communication, reinforce the bond between the brand and the consumer, establishing a personal connection (Sebastián-Morillas, Martín-Soladana, & Clemente-Mediavilla, 2020) [19]. In emotional advertising, the aim is to awaken sensations that stimulate consumers, generating a positive attitude towards the commercial message (Vázquez, 2007) [20].

Beliefs: Cultural beliefs influence consumption behaviors. When entering new markets, brands often need to adapt to the culture and beliefs of local consumers. Culture influences the needs, tastes, interests, beliefs, values, and choices of consumers regarding products and brands. Also, individual beliefs, in relation to their culture, are crucial elements in the consumer's purchasing behavior (Gil Hernández *et al.*, 2013) [12].

Motivations: Motivation is defined as the force that drives individuals to act, generated by an unsatisfied need. Consumers seek to reduce this tension by selecting goals and behaviors that, according to their expectations, will meet their needs (Schiffman, Kanuk, & Wisenblit, 2010) [21]. The motivational aspects that influence consumer behavior are crucial during the pre-purchase phase (Lévano & Merino, 2021) [22]. Sources of motivation include attitudes, principles, and values, and are one of the main drivers of the consumer's purchasing decision (Espinela, Castro, & Espinosa-Pérez, 2019) [10].

1.3. Purchase Process and Consumer Generations (Study Analysis Groups)

Humbria (2010) [23] argues that the purchasing decision process involves a se-

ries of stages aimed at determining the acquisition of goods or services. Kotler & Armstrong (2012) [4] propose a five-stage purchase decision process: need recognition, information search, alternative evaluation, purchase decision, and post-purchase behavior.

Currently, companies and consumers face unprecedented challenges such as digital transformation, technological advancements, and the repercussions of the pandemic, which have produced more demanding and informed consumers. Moreover, competition in products and services accentuates the need for marketing strategies focused on segmentation, positioning, and differentiation (Sulla, 2021) [24].

Juvené, Cerpa & Guerrero (2018) [25] affirm that the information society determines new scenarios in various fields due to the development of global markets and conglomerates. Constant access to updated and personalized information has given rise to new standards of demand and increasingly personalized products.

The buying process involves multiple steps before making the final decision, influenced by various factors. According to Ojeda-Rondan, Yampi-Supho & Vargas-Salinas (2023) [26], the analysis of the degree of correspondence between consumer behavior and the dynamics it generates justifies the study. Motivation also plays a crucial role in the purchase process, as it is the set of non-cognitive emotions of the human mind that intervene in the purchase decision (Golovina & Mosher Valle, 2013, p. 18) [27].

López (2015) [8] highlights the relationship between the purchasing process and insights, considering variables such as tastes, preferences, perceptions, motivations, emotions, and beliefs. Traditionally, the price and quality of goods were decisive factors for the consumer. However, today, factors such as proper ambience, smell, taste, sound, and sensation also influence the purchasing process.

On the other hand, Quintero (2015) [28] suggests that working with the senses allows establishing long-term relationships, due to the emotional connection that experiences generate in people's memory (Pereira, Ríos, and Orozco, 2018) [29]. Andrade (2016) [30] points out that understanding the factors that influence customers' purchase decisions has become a top priority for companies.

Celsi & Olson (1988) [31], in their research on purchase involvement, highlight the importance of consumer motivation in the purchasing process, which is related to their knowledge of the product and its perceived attributes and benefits (González, Orozco, and Paz, 2011) [32].

According to Kotler & Keller (2012) [33], consumer behavior involves observing how consumers buy, use, choose, and discard products and services to satisfy their desires. They proposed five stages in the purchase decision process: problem recognition, information search, alternative evaluation, purchase decision, and post-purchase behavior (Estrada, Nacipucha & Villacrés-Beltrán, 2020) [34]. This context is based on consumer knowledge, which justifies the need to analyze each generation to determine which of these variables are more influential.

Kotler & Keller (2012) [33] provide a classification of generational groups as: the Silent Generation, the Baby Boomers, Generation X, Generation Y or millennials, and Generation Z or centennials. Segmenting by generational groups allows a better understanding of consumer behavior and their decision-making processes. Companies should design their marketing strategies considering the generational profile of their target market (Grupo Acir, 2018) [35].

For each of these generations, it is relevant to consider their distinctive characteristics.

Baby Boomers (born between 1946 and 1964) are known as “digital immigrants” and are characterized by their conservatism and valuing job stability (Grupo Acir, 2018) [35].

Generation X, on the other hand, is one of the smallest due to the introduction of the contraceptive pill in 1964. They are considered the “Google generation,” as they were the first to use the Internet (Grupo Acir, 2018) [35].

Millennials, born between 1982 and 2000, are known for their economic and social challenges and their integration with technology (Grupo Acir, 2018 [35]; Heyns & Kerr 2018 [36]).

Finally, Generation Z, also known as centennials, is characterized by growing up with digital media and having access to information with just one click. Many of them aspire to be business leaders and have entered the working world in the early years of the 21st century. (Popescu, Popa y Cotet, 2019) [37].

Gender diversity (including male, female, and LGBTI individuals) at all levels of an organization, where there is an equal opportunity framework for all workers, has been shown to positively impact achieving results and improving Human Talent management (Díaz, 2022) [38]. The inclusion of women in leadership positions within organizations has seen a considerable increase in recent times, as there has been a greater presence of women studying business, economics, and industry-related careers, which has led to approximately 40% of positions worldwide being held by women (Zabludovsky, 2015) [39].

According to Gómez Alma, when there is greater diversity in leadership levels, women can more easily access leadership positions, creating a more inclusive work environment. In fact, most companies where women are participants affirm that their earnings have grown from 10% to 15% due to gender inclusion. The average of women in leadership positions has increased in high-income countries (31%) and in medium-high-income countries (26.7%) (Gómez, A. 2020) [40]. The benefits of women leaders in companies are numerous and significant. For instance, in a study of 13,000 companies worldwide, three out of four private sector companies that include women in leadership positions have seen growth in their profits of 5% to 20%. The positive impact of female leadership is ideal; therefore, through the same study, an interview was conducted with national and international SMEs belonging to 70 countries in Africa, Asia, Europe, Latin America, and the Middle East. The study found that 54% of companies have experienced improvements in creativity and innovation, 57% indicate that women

in leadership positions can promote the arrival of a new employee as well as the retention of existing ones, and finally, they improve corporate reputation and image (GDI UNIFORMES, 2021) [41].

This research investigates the correlation between female participation and the leadership styles that companies have. To determine this correlation, two hypotheses were proposed: H0: There is no correlation between leadership style and female participation in leadership positions in companies in the city of Loja; and HA: There is a correlation between leadership style and female participation in leadership positions in companies in the city of Loja. To fulfill this purpose, four sections were executed. The first presents some theoretical references on gender, identity, leadership, leadership styles, characteristics of female leadership, and their importance today. The second section refers to the methodology used in conducting the research. The third section presents descriptive and correlational results of the study variables analyzed. Finally, the respective conclusions and recommendations are made.

2. Methodology

The design of this research falls within an exploratory and conclusive descriptive approach and is based on a multiple cross-sectional study model. The purpose is to contrast a hypothesis among various consumer groups, grouped according to their generation: Baby Boomers, Generation X, Millennials, and Generation Z. This study leans towards a mixed research methodology, supporting the approach of Hernández Sampieri, R., Fernández Collado, C., & Bautista Lucio, M. del P. (2010) [42], who assert that the objective of mixed research is not to replace quantitative or qualitative research, but to capitalize on the inherent strengths of both approaches and mitigate their possible limitations within the framework of a single study.

2.1. Study Population

The study focuses on the population of Loja, Ecuador, a city distinguished by its commercial activity and consumption patterns, which is home to an estimated 239,095 residents for the year 2022, according to information provided by INEC. The demographic focus of the study has been segmented by age groups, ranging from 18 to 75 years old. This segmentation is structured as follows: Baby Boomers (56 to 75 years old), Generation X (40 to 55 years old), Millennials (24 to 39 years old), and Generation Z (18 to 23 years old).

Below, the procedure for determining the required sample size to obtain the number of surveys needed to continue with the analysis of the research among different generational groups is presented. To do this, the following formula is applied:

$$n = z^2 * p * q * N / e^2(N - 1) + z^2 * p * q$$

where:

$$n = \text{Desired sample size}$$

N = Population size or universe

Z = Confidence level constant

e = Margin of error

p = Number of individuals in the population

q = Proportion of individuals not possessing the characteristics

$$n = 1.962 * 0.5 * 0.5 * 239.095 / 0.052 * (151.164 - 1) + 1.962 * 0.5 * 0.5$$

$$n = 383.50$$

$$n = 384$$

Taking into account that we will be working with the four generations, the number of surveys, which in this case is 384, is divided by the four generations, resulting in 96 surveys. In other words, 96 surveys should be conducted for each generation, as shown in **Table 1**.

2.2. Sample Design

We implemented a probabilistic sample design with a simple random sampling approach to ensure the representativeness of each generational segment. This method guarantees that each individual in the population has the same probability of being selected, providing greater reliability to the study's primary findings.

2.3. Contrast Hypotheses

In this section, we focus on the validation of our hypotheses and describe the data analysis methods used in this study. In order to assess the formulated hypotheses, which investigate the presence of differences among the study groups, a thorough statistical analysis was conducted using appropriate tools and techniques. Given the inherent diversity of the variables related to perceptions and purchasing patterns, which do not necessarily follow a normal distribution, as is the case in this study, we chose to employ the Kruskal-Wallis test. This choice was based on the non-normality of the variables to ensure the validity of the comparisons made among the different generational groups.

Ho: There are no significant differences in insights and purchasing patterns among different generational groups: Baby Boomers, Generation X, Millennials, and Generation Z.

Table 1. Study groups.

Study Groups	Frequency	Percentage
Generation Z	96	25.0
Millennials	96	25.0
Generation X	96	25.0
Baby Boomers	96	25.0
Total	384	100.0

H1: Insights and purchasing patterns vary significantly depending on the generational group to which the consumer belongs: Baby Boomers, Generation X, Millennials, and Generation Z.

These hypotheses will guide the analysis of the data, seeking evidence to support or refute the existence of differences in purchasing behavior among the different generational groups.

3. Results

The study focused on analyzing the insights and patterns of the purchasing process according to different generational groups. For this purpose, items were used that captured the importance of each attribute in relation to the corresponding generation. To do this, a Likert scale was used that ranged from “Not important” (1) to “Very important” (5) which was developed by the authors of the same research for convenience, with the aim of assessing the perception of the purchasing process in each generational group. The reliability of the scales was evaluated using Cronbach’s alpha coefficient, all the scales obtained a value higher than 0.7, which denotes satisfactory reliability (Hair *et al.*, 2014). **Table 2**

Table 2. Measurement scale and reliability.

Construct	Item Code	Items	Cronbach’s Alpha
General Consumer Insights (GCI)	GCI1	Tastes	0.93
	GCI2	Preferences	
	GCI3	Perceptions	
	GCI4	Emotions	
	GCI5	Beliefs	
	GCI6	Motivations	
Purchasing Patterns According to Generational Consumer Insights (PCI)	PCI1	Personal tastes	0.87
	PCI2	Sensory experience at the point of purchase	
	PCI3	Good service experience	
	PCI4	Motivations by brand	
	PCI5	Motivations by quality	
	PCI6	Motivations by promotions	
	PCI7	Unexpected desires in products or services not sought	
	PCI8	Impulse at the time of purchase	
	PCI9	Satisfaction with the purchase made	

shows how the scales of “General Consumer Insights” (GCI) and “Purchasing Patterns according to Generational Consumer Insights” (PCI) have a Cronbach’s alpha of 0.93 and 0.87, respectively, suggesting good internal consistency in the items for each construct.

Subsequently, an analysis of the proportions of the Likert scales of GCI (General Consumer Insights) and PCI (Purchasing Patterns According to Generational Consumer Insights) was carried out for four distinct generations: Baby Boomers, Generation X, Millennials, and Generation Z in the city of Loja, Ecuador.

Since the normality tests indicated a non-normal distribution (**Table 3** and **Table 4**) of the data, it was decided to use the non-parametric Kruskal-Wallis test.

Table 3. Kolmogorov-Smirnov test of normality for GCI.

		GCI1	GCI2	GCI3	GCI4	GCI5	GCI6
N		384	384	384	384	384	384
Normal Parameters a, b	Mean	3.130	3.151	3.169	2.924	2.768	3.161
	Std. Deviation	1.3359	1.2255	1.1172	1.1927	1.2182	1.1983
Maximum Absolute Differences	Absolute	0.177	0.201	0.183	0.171	0.158	0.162
	Positive	0.132	0.128	0.149	0.171	0.158	0.150
	Negative	-0.177	-0.201	-0.183	-0.155	-0.154	-0.162
Test Statistic		0.177	0.201	0.183	0.171	0.158	0.162
Asymptotic Significance (2-tailed)		0.000c	0.000c	0.000c	0.000c	0.000c	0.000c

a. Test distribution is normal; b. Calculated from data; c. Lilliefors Significance Correction.

Table 4. Kolmogorov-smirnov test of normality for PCI.

		PCI1	PCI2	PCI3	PCI4	PCI5	PCI6	PCI7	PCI8	PCI9
N		384	384	384	384	384	384	384	384	384
N. Params.	Mean	4.315	4.010	4.398	3.544	4.271	3.974	3.445	3.313	4.349
	Std. D.	0.999	1.0446	0.9026	1.1508	0.9023	1.0715	1.1367	1.1613	0.9658
Max. Devs	Absolute	0.326	0.246	0.354	0.180	0.293	0.249	0.182	0.191	0.341
	Positive	0.247	0.172	0.253	0.156	0.210	0.169	0.158	0.163	0.250
	Negative	-0.326	-0.246	-0.354	-0.180	-0.293	-0.249	-0.182	-0.191	-0.341
Test Statistic		0.326	0.246	0.354	0.180	0.293	0.249	0.182	0.191	0.341
Asymptotic Sig.		0.000c	0.000c	0.000c	0.000c	0.000c	0.000c	0.000c	0.000c	0.000c

a. Test distribution is normal; b. Calculated from data; c. Lilliefors Significance Correction.

4. Discussion

This study aims to examine whether there are significant differences in insights and purchase patterns among different generational groups: Baby Boomers, Generation X, Millennials, and Generation Z. To do this, the following hypotheses were formulated:

Null Hypothesis (Ho): There are no significant differences in insights and purchase patterns among the different generational groups.

Alternative Hypothesis (H1): Insights and purchase patterns differ significantly based on the generational group to which the consumer belongs.

After conducting the Kruskal-Wallis test for non-parametric data, the results revealed significant differences in the distributions of IGC and PCI among the four generations, providing a robust indication of the variation in insights and purchase patterns across generations. We can observe this in the average rank values presented in **Figure 1** and **Figure 2** and **Table 5**.

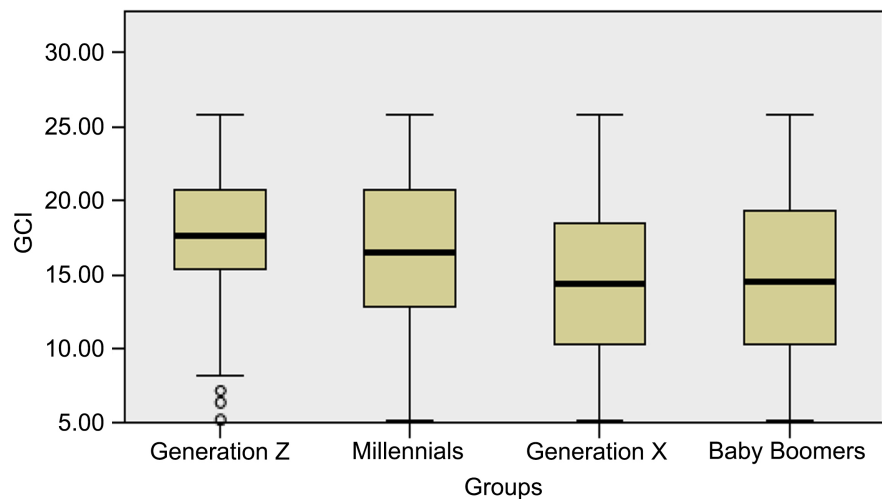


Figure 1. Kruskal-Wallis test for independent samples for IGC.

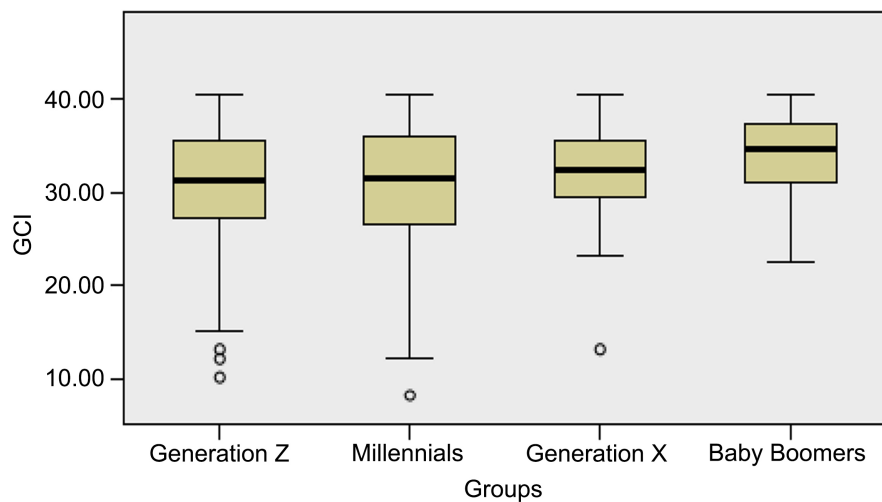


Figure 2. Kruskal-Wallis test for independent samples for PCI.

Table 5. Ranks.

Factor	Groups	N	Average Rank
IGC	Generation Z	96	232.12
	Millennials	96	210.28
	Generation X	96	156.59
	Baby Boomers	96	171.01
	Total	384	
PCI	Generation Z	96	171.04
	Millennials	96	174.49
	Generation X	96	187.61
	Baby Boomers	96	236.85
	Total	384	

To better understand these differences, we could represent the data using box and whisker plots (**Figure 1** and **Figure 2**). These plots allow us to visualize the distribution of the data and its variability across different groups.

In these plots, the “box” represents the interquartile range (IQR), which is the middle 50% of the data, and the “line” inside the box is the median (or 50th percentile), dividing the data into two halves. The “whiskers” extend from the box to the minimum and maximum values within an acceptable range, and the points outside the whiskers represent potential outliers.

Table 6 presents the results of the Kruskal-Wallis test conducted for the variables “General Consumer Insights” (IGC) and “Purchase Patterns according to Generational Consumer Insights” (PCI), considering the grouping variable as “Generation”. This non-parametric test is used to compare three or more independent groups and determine if there are significant differences among them.

Regarding the “General Consumer Insights” (IGC), the results indicated that the null hypothesis should be rejected. In other words, the distribution of IGC is not the same across generations ($p < 0.000$). This suggests that general consumer insights are not homogeneous among generations and show significant variations.

Similarly, for the “Purchase Patterns according to Generational Consumer Insights” (PCI), the null hypothesis was also rejected. This indicates that the distribution of purchase patterns, linked to generational insights, significantly differs among generational groups ($p < 0.000$). These details can be observed in **Table 6** and **Table 7**.

For the variable IGC, the Kruskal-Wallis test statistic value is 28.390, with 3 degrees of freedom and an asymptotic significance of 0.000. The same applies to the variable PCI, where the H statistic is 21.699 with 3 degrees of freedom and an asymptotic significance of 0.000. These significance values ($p < 0.001$) indicate that there is sufficient statistical evidence to reject the null hypothesis that the distributions of the IGC and PCI variables are the same across the generation categories.

Table 6. Test Statistics for Kruskal-Wallis Test ab.

	IGC	PCI
H	28.390	21.699
df	3	3
Asymptotic Sig.	0.000	0.000

a. Kruskal-Wallis Test; b. Grouping Variable: Generation.

Table 7. Hypothesis testing summary.

Null Hypothesis	Test	Sig.	Decision
The distribution of IGC is the same across Generational categories.	Kruskal-Wallis test for independent samples	0.000	Reject the null hypothesis.
The distribution of PCI is the same across Generational categories.	Kruskal-Wallis test for independent samples	0.000	Reject the null hypothesis.

Asymptotic significances are shown. The significance level is 0.05.

In the context of this test, rejecting the null hypothesis implies that there is a significant difference in general consumption insights and purchasing patterns among different generational groups. In other words, the results suggest that generations do not experience and perceive products or services in the same way, nor are influenced by the same factors in their purchasing decisions.

To complement the analysis, average ranks were calculated for each generation in both variables. We observe that in IGC (**Table 4, Figure 1**), individuals from Generation Z have the highest average rank (232.12), followed by Millennials (210.28), Generation X (156.59), and Baby Boomers (171.01). Regarding PCI (**Table 4, Figure 2**), once again Generation Z shows the highest average rank (171.04), followed by Millennials (174.49), Generation X (187.61), and Baby Boomers (236.85).

These results suggest that, in general, Generation Z exhibits greater variability in their general consumption insights and purchasing patterns compared to other generations. On the other hand, Baby Boomers show lower variability in both variables, indicating greater homogeneity in their preferences and buying behaviors.

In summary, the Kruskal-Wallis test reveals significant differences in general consumption insights and purchasing patterns among different generations. The results highlight the importance of considering the specific characteristics and preferences of each generational group when developing marketing strategies and offering products or services that cater to their particular needs and desires.

Consequently, in **Table 6**, we observe the following conclusion: (Please provide the information or conclusion that appears in **Table 6**).

In the study, post-hoc Dunn tests were conducted for the analysis of the factors “General Consumer Insights” (IGC) and “Purchasing Patterns according to

Generational Consumer Insights” (PCI) among different generations. Post-hoc tests are performed after an analysis of variance (ANOVA) or, in this case, a Kruskal-Wallis test, to determine which specific groups show significant differences. In this context, the different generational groups are compared as indicated in **Table 8** and **Table 9**.

In **Table 7** and **Table 8**, each row represents a specific comparison between two generational groups. The “Value Z” refers to the test statistic, which indicates the magnitude of the difference between two groups in terms of standard deviations. The “Value P” is the probability of obtaining a result as extreme as the observed one if the null hypothesis is true. A P-value less than 0.05 is generally considered statistically significant, indicating that the null hypothesis can be rejected.

However, when conducting multiple simultaneous comparisons, the probability of obtaining false positives (Type I errors) increases, which is why “Adjusted P-values” are used. These are calculated to control the Familywise Error Rate (FWER) and keep it below the desired level (usually 0.05). Thus, comparisons where the adjusted P-value is less than 0.05 are considered statistically significant.

These findings indicate that insights and purchasing patterns differ significantly among these particular generations, as observed in **Table 8** and **Table 9**.

Table 8. Factor IGC-comparisons.

Comparisons	Z Value	P Value	Adjusted P Value
Baby Boomers - Generation X	0.90	0.1839	1.00
Baby Boomers - Generation Z	-3.82	0.000067	0.00040
Generation X - Generation Z	-4.72	0.0000012	0.0000071
Baby Boomers - Millennials	-2.45	0.0071	0.0425
Generation X - Millennials	-3.35	0.00040	0.0024
Generation Z - Millennials	1.36	0.0862	0.52

Factor IGC: Baby Boomers vs. Generation X: The Z value of 0.90 and the P value of 0.1839 indicate that there is no significant difference in general consumption insights between these two generational groups ($p > 0.05$); Baby Boomers vs. Generation Z: The Z value of -3.82 and the P value of 0.000067 (adjusted to 0.00040) indicate a significant difference between these two groups. Generation Z shows significantly higher and distinct general consumption insights compared to Baby Boomers; Generation X vs. Generation Z: The Z value of -4.72 and the P value of 0.0000012 (adjusted to 0.0000071) reveal a significant difference between these two generations. Generation Z presents significantly higher general consumption insights compared to Generation X; Baby Boomers vs. Millennials: The Z value of -2.45 and the P value of 0.0071 (adjusted to 0.0425) suggest a significant difference between these two groups. Millennials have significantly different and lower general consumption insights than Baby Boomers; Generation X vs. Millennials: The Z value of -3.35 and the P value of 0.00040 (adjusted to 0.0024) indicate a significant difference between these two generations. Millennials show significantly lower general consumption insights compared to Generation X; Generation Z vs. Millennials: The Z value of 1.36 and the P value of 0.0862 (adjusted to 0.52) do not reveal a significant difference between these two groups ($p > 0.05$).

Table 9. PCI factor—comparisons.

Comparisons	Z Value	P Value	Adjusted P Value
Baby Boomers vs. Generation X	3.08	0.0010	0.0062
Baby Boomers vs. Generation Z	4.11	0.000019	0.00012
Generation X vs. Generation Z	1.04	0.15	0.90
Baby Boomers vs. Millennials	3.90	0.000048	0.00029
Generation X vs. Millennials	0.82	0.21	1.00
Generation Z vs. Millennials	-0.22	0.41	1.00

Factor PCI: Baby Boomers vs. Generation X: The Z-value of 3.08 and the P-value of 0.0010 (adjusted to 0.0062) suggest a significant difference between these two groups. Generation X exhibits purchase patterns linked to generational insights significantly lower than Baby Boomers; Baby Boomers vs. Generation Z: The Z-value of 4.11 and the P-value of 0.000019 (adjusted to 0.00012) indicate a significant difference between these two groups. Generation Z shows purchase patterns related to generational insights significantly higher than Baby Boomers; Generation X vs. Generation Z: The Z-value of 1.04 and the P-value of 0.15 (adjusted to 0.90) do not reveal a significant difference between these two generations in terms of purchase patterns ($p > 0.05$); Baby Boomers vs. Millennials: The Z-value of 3.90 and the P-value of 0.000048 (adjusted to 0.00029) indicate a significant difference between these two groups. Baby Boomers have purchase patterns linked to generational insights significantly lower than Millennials; Generation X vs. Millennials: The Z-value of 0.82 and the P-value of 0.21 (adjusted to 1.00) do not reveal a significant difference between these two generations in terms of purchase patterns ($p > 0.05$); Generation Z vs. Millennials: The Z-value of -0.22 and the P-value of 0.41 (adjusted to 1.00) also do not show a significant difference between these two groups in terms of purchase patterns ($p > 0.05$); The qualitative analysis reveals that there are significant differences in general consumer insights and purchase patterns among different generational groups. The Z-values and adjusted P-values help identify which comparisons are significantly different and which are not. These findings are crucial in understanding consumers and their buying process, providing insights into how consumer insights and purchase patterns vary among distinct generational groups. This information can have significant implications in the development of marketing strategies and the offering of products or services tailored to the specific preferences and needs of each generation.

5. Conclusions and Discussion

Based on the results obtained from the research and data analysis presented, the following conclusions can be drawn:

There are significant differences in insights and purchase patterns among different generational groups: Baby Boomers, Generation X, Millennials, and Generation Z. This suggests that consumer habits, perceptions, and motivations vary according to the generation to which the consumer belongs.

The post-hoc Dunn tests revealed significant differences in the “General Consumer Insights” (IGC) factor between Generation Z and Baby Boomers, Generation Z and Generation X, Baby Boomers and Millennials, and Generation X and Millennials.

Regarding the “Purchase Patterns according to Generational Consumer In-

sights” (PCI) factor, significant differences were found between Baby Boomers and Generation X, Baby Boomers and Generation Z, and Baby Boomers and Millennials.

Based on these conclusions, the following recommendations are made:

Personalized Marketing: Given the significant variations in insights and purchase patterns among generations, it is essential for companies to personalize their marketing strategies for each generational group. For instance, marketing tactics that are effective for Baby Boomers may not be as successful for Generation Z or Millennials.

Continuous Research: Given the constant evolution of consumer trends and generational differences, conducting periodic studies is recommended to stay updated on insights and purchase patterns across different generations.

Target Specific Groups: Depending on the product or service offered by the company, focusing on generational groups that show greater interest or affinity for the product or service can be beneficial. For example, if a product resonates particularly well with Millennials, the company could concentrate its marketing efforts on this generational group.

Multi-Channel Strategies: Considering that different generations may have distinct preferences for communication channels (e.g., social media for Millennials and Generation Z, print or television media for Baby Boomers), it is important to implement multi-channel marketing strategies to effectively reach each generational group.

Consumer Education: For attributes of products or services that are important but not well perceived or understood by specific generational groups, implementing a consumer education strategy can highlight the value and benefits of these attributes.

Conflicts of Interest

The authors declare no conflicts of interest.

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