Understanding consumer sentiments: A study on the smartwatch market in Chennai

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ABSTRACT

This paper focuses on the burgeoning market for smartwatches in Chennai, a segment of portable computing devices known for their diversity in size, shape, and colour. In 2021, the global market value of smartwatches stood at USD 22.46 billion, and projections suggest a substantial increase to USD 97.52 billion by 2028. The aim of this study is to conduct a comprehensive market analysis of smartwatches within the geographical context of Chennai. To achieve this, the research adopted an empirical methodology, gathering data from a total of 203 respondents through the convenience sampling technique. The findings of the study indicate a strong market presence of smartwatches in Chennai, particularly among the younger demographic, attributed to the multiple benefits these devices offer. The analysis reveals that while the younger population has readily embraced smartwatches, there remains untapped potential among older demographics. The study concludes that for smartwatch companies to expand their market share in Chennai, innovative strategies targeting the older population are essential. This approach could lead to broader adoption across all age groups, further enhancing the market growth of smartwatches in the region.

Keywords: Smartwatches, Wearable Tech Trends, Market Analysis.

1. Introduction

Smartwatch, a type of wearable computer, comes in various shapes, sizes, designs, and functionalities. To understand the evolution of smartwatches in the consumer market, it's helpful to look back at the last 30 years. The evolution of the electronics industry, especially the integration of new technologies, has significantly influenced this change. Modern smartwatches are equipped with a local touchscreen interface for daily operations, while a smartphone app manages and relays data. The first generation of smartwatches was introduced around 2012, nearly a decade ago. Prior to 2012, watches lacking an advanced operating system, such as Android or Tizen, were categorized as 'digital watches,' not 'smartwatches.' This marks the evolution from the traditional digital watch to the emergence of the smartwatch.

The central government has launched the Production Linked Incentive (PLI) Scheme to boost India's export market share in the hearables and wearables sector. This initiative aligns with the broader 'Make in India for the World' strategy, emphasizing the enhancement of device manufacturing within the country. The administration's efforts are directed towards increasing domestic production, aiming to position India as a key player in the global market for these technologies. Key factors driving the smartwatch market include the integration of fitness apps, which add significant value for customers, making them feel their investment is worthwhile. The growing trend towards fitness and health has also become a major motivator for purchasing smartwatches. Additionally, insurance companies, educational institutions, and various workplaces are encouraging and incentivizing their clients and employees to maintain fitness using these devices. Consequently, the presence of fitness apps and trackers in smartwatches has emerged as a critical selling point, further propelling their popularity and adoption. The current trends in India's wristwatch industry, as per Counterpoint's IoT Service analysis, show a significant surge of 173 percent year-over-year in Q1 (January-March, 2022). This remarkable growth is attributed to increasing consumer interest, numerous product launches during the quarter, and the availability of various discounts and promotional offers. These factors collectively contribute to the expanding market for wristwatches in India.

In 2021, India's smartwatch market witnessed its most rapid year-on-year (YoY) growth, with the fourth quarter marking the largest quarter for smartwatch sales. Research by International Data Corporation (IDC) shows that the Indian watch market, encompassing both smartwatches and connected devices, experienced a 364.1 percent YoY increase. The total units sold rose to 12.2 million in 2021, a significant leap from the 2.63 million units sold in 2020. Specifically, in the fourth quarter, smartwatch vendors in

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India shipped 4.9 million units, representing a 271.2 percent increase over the previous year. This period was noted by the market research firm as the country's most active quarter for wearable timepieces.

The objectives of this study are threefold. First, it aims to analyse the benefits of using smartwatches, delving into their various features and functionalities that contribute to their appeal. This includes an exploration of how these devices enhance daily life through technology. Second, the study seeks to assess the impact of smartwatches on the lifestyles of individuals. This involves understanding how these devices influence aspects such as health monitoring, connectivity, and overall convenience in daily activities. Lastly, the study intends to explore the market for analog watches in the era of smart technology. This will involve examining consumer preferences and industry trends to understand how the introduction of smartwatches has affected the analog watch market.

2. Review of Literature:

Consumer Perceptions and Usage Drivers

Research on smartwatch adoption reveals that user perceptions are strongly shaped by emotional value, perceived usefulness, convenience, and continuous usability. **Kumar et al. (2017)** found Indian consumers give greater

importance to features like notifications, health tracking, and distinctive designs than to brand or price, with practicality and uniqueness driving purchase intentions. International studies further highlight affective quality, relative advantage, and subcultural appeal as crucial influences on attitudes and intentions to use smartwatches, with habit being a key determinant for sustained usage **(Kim et al., 2015; Bruno Nascimento et al., 2018; Boreum Choi et al., 2016)**. Market research in the US and other countries agrees that confirmation, satisfaction, and perceived usability are central to the continued use of wearable devices

Market Growth and Adoption Trends

Robin Singh Chandel et al. (2022) noted that India's smartwatch demand has grown gradually but remains lower than early forecasts. **Kumar et al. (2017)** found Indian consumers value practical features and unique designs, helping brands like boAt and Noise grow rapidly. From 2022 to 2023, shipments surged over 70%, making India a top wearable market globally. This growth came from affordable, feature-rich devices appealing to first-time buyers in urban and rural areas. However, reports from IDC and Counterpoint reveal a slowdown in 2024, with shipments dropping 32%, due to saturation, inventory issues, and a shift toward premium models among mature users. Despite fluctuations, demand continues to rise steadily but slower than expected. The presence of low-cost, non-branded options risks diluting user experience, indicating future growth depends on innovation and better consumer targeting.

Design, Fashion, and Functional Factors

A consistent theme across Indian and global studies is the centrality of design and fashion, especially among young buyers. Display shape, trendy aesthetics, and user-friendly interfaces rank higher than brand loyalty and price **(Yoonhyuk Jung et al., 2016; Jaewon Choi et al., 2016; IIMB Consumer Perception Study, 2021)**. Curved and sport-inspired designs are often preferred, and smartwatches serve both practical and expressive roles. Research by **Yu-Liang Feng et al. (2023)** provides evidence that head design—whether slim and simple or decorated and precious—significantly affects visual perception and consumer appeal. Fashion-related attributes, including self-expression and pleasure, also drive attachment to these **devices (Woo-Chul Cho et al., 2018; Marta Blazquez et al., 2020)**, indicating dual roles as both technology and accessory.

Healthcare and Educational Applications

Several researchers have explored the application of smartwatches beyond convenience. Biomedical-focused reviews, such as by **Robin Singh Chandel et al. (2022)**, note that while smartwatches show promise in health monitoring, actual uptake in India is lower than anticipated, with factors like supporting technologies and health-specific features now being better recognized as adoption drivers. **Tsung-Chien Lu (2016)** and other international work stress the healthcare potential of biosensor-equipped smartwatches but call for more clinical research to prove effectiveness. Another emerging application is in education: findings from **Mostafa Al-Emran et al. (2020)** and others indicate strong

acceptance among students for time management, personal tracking, and instructional purposes, driven by ease of use and perceived utility.

Hence, summarizing the literature review on smartwatches reveals multifaceted insights into consumer behaviour, design preferences, and market trends. While some studies emphasize the role of customized features and perceived value in user adoption and continued use, others discuss consumer resistance, highlighting the gap between functionality-focused marketing and user preferences. The review further uncovers the influence of design, fashion appeal, and technological traits on user attachment, offering insights into how design elements influence visual perception and style preferences in sports smartwatches. Collectively, these studies underscore the complexity of consumer choices, the importance of aesthetics and personalization, and the need for inclusive marketing strategies in the evolving smartwatch market.

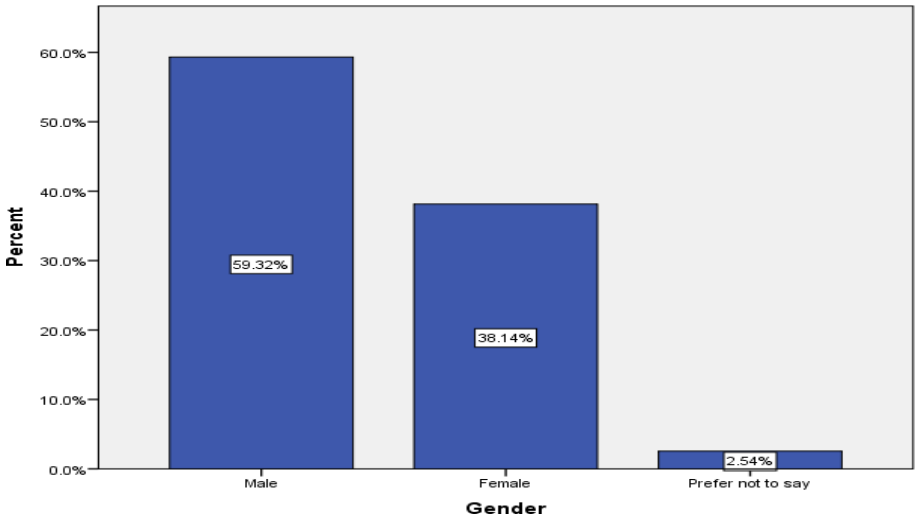
3. Methodology

This study employed an empirical research method utilizing convenience sampling to collect data from 203 participants, selected based on their availability and willingness through both in-person interactions in Chennai and online platforms. Convenience sampling was chosen for its practicality and efficiency within the constraints of time and resources, though it limits the generalizability of the findings. The independent variables—age, gender, educational qualification, and income—were chosen due to their expected influence on perceptions and behaviors related to smartwatch usage. The dependent variables focused on respondents' views regarding lifestyle convenience, intention to own a smartwatch, perceived benefits, and opinions on the decline of analog watch demand amid rising smartwatch popularity.

Data analysis involved graphical representation for visual insights, one-way ANOVA to detect differences across demographic groups, and Chi-Square tests to examine relationships between categorical variables; these statistical tools are well-established for behavioral research and suitable for analyzing group differences and associations. While adequate for this exploratory study, increasing the sample size and incorporating more advanced analyses such as multivariate regression or structural equation modeling in future research would improve reliability, robustness, and generalizability of the results, thereby strengthening the study's credibility and contribution.

1.1 Percentage Analysis:

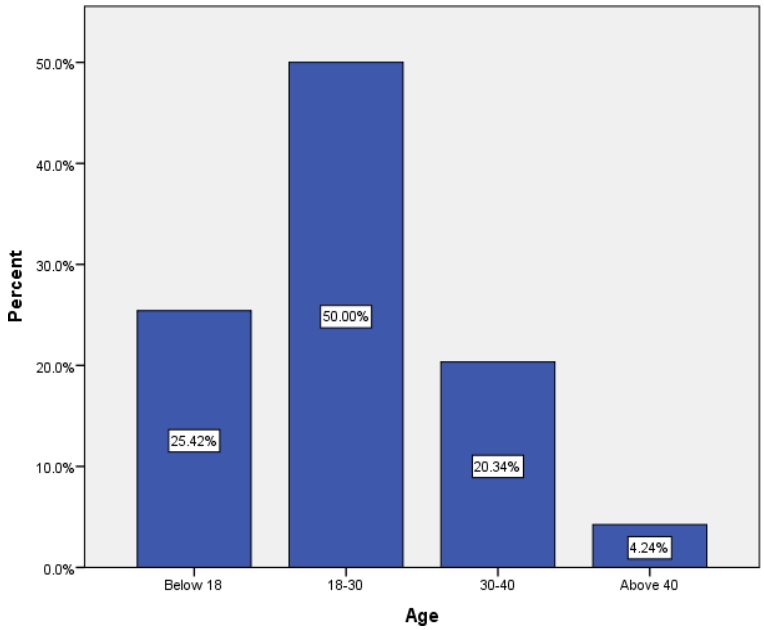
Figure 1:



Source: Primary Data

Legend: Figure 1 bar graph shows the percentage analysis of gender of the sample population.

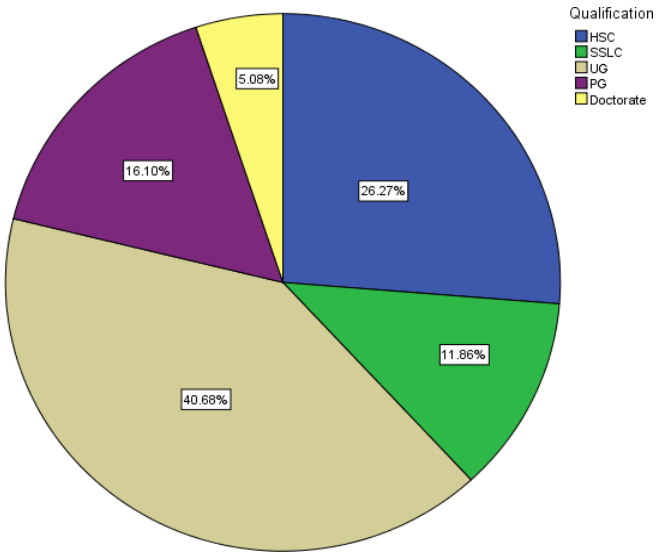
Figure 2:



Source: Primary Data

Legend: Figure 2 bar graph shows the percentage analysis of age of the sample population.

Figure 3:



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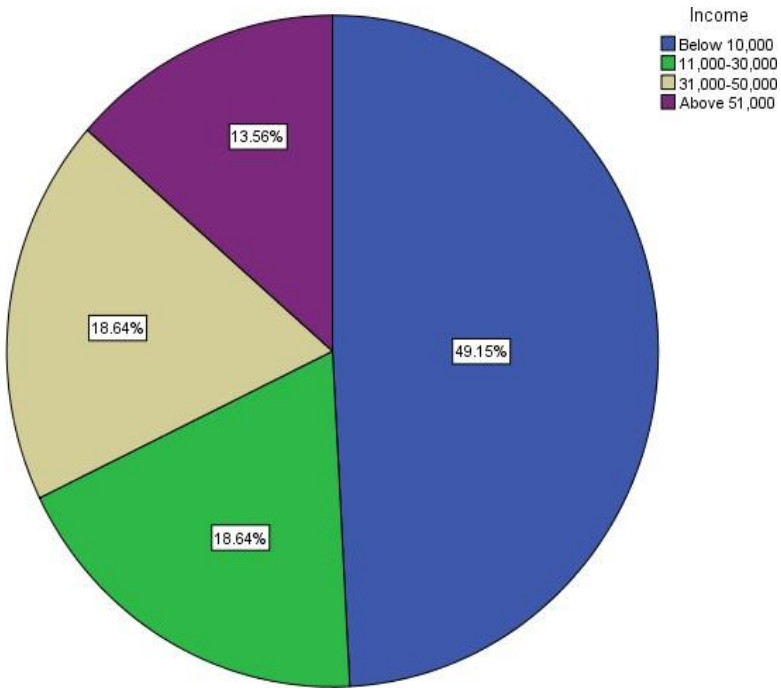
Legend: Figure 3 pie chart shows the percentage analysis of qualifications of the sample population.

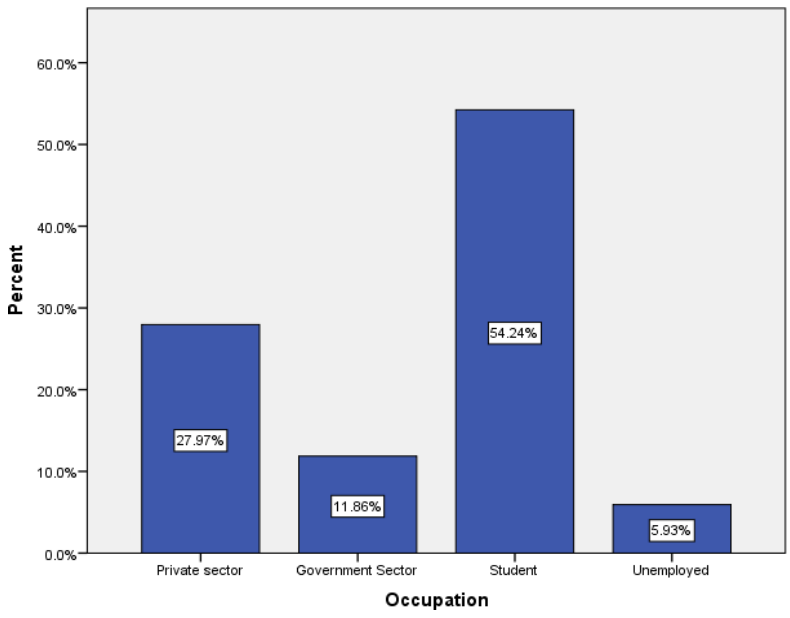
Figure 4:



Source: Primary Data

Legend: Figure 4 pie chart shows the percentage analysis of income of the sample population.

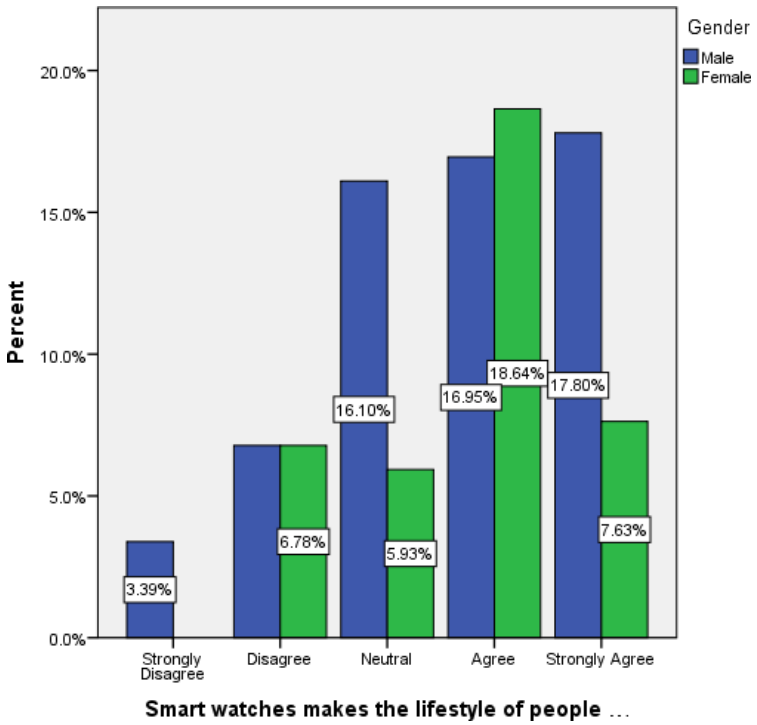
Figure 5:



Source: Primary Data

Legend: Figure 5 pie chart shows the percentage analysis of occupation of the sample population.

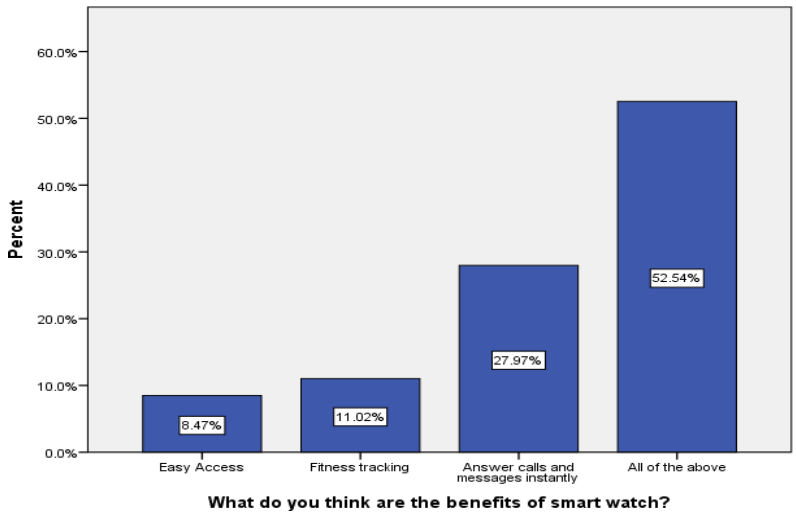
Figure 6:



Source: Primary Data

Legend: Figure 6 cluster bar chart shows the percentage analysis on the views of the sample population whether smart watches make the lifestyle of people easier based on gender.

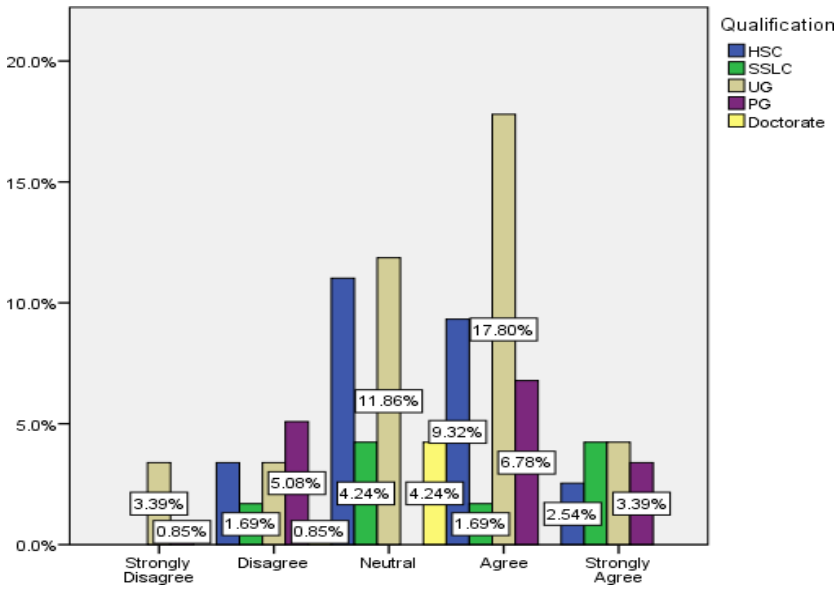
Figure 7:



Source: Primary Data

Legend: Figure 7 bar graph shows the percentage analysis on the views of the sample population on what are the various benefits of smart watches.

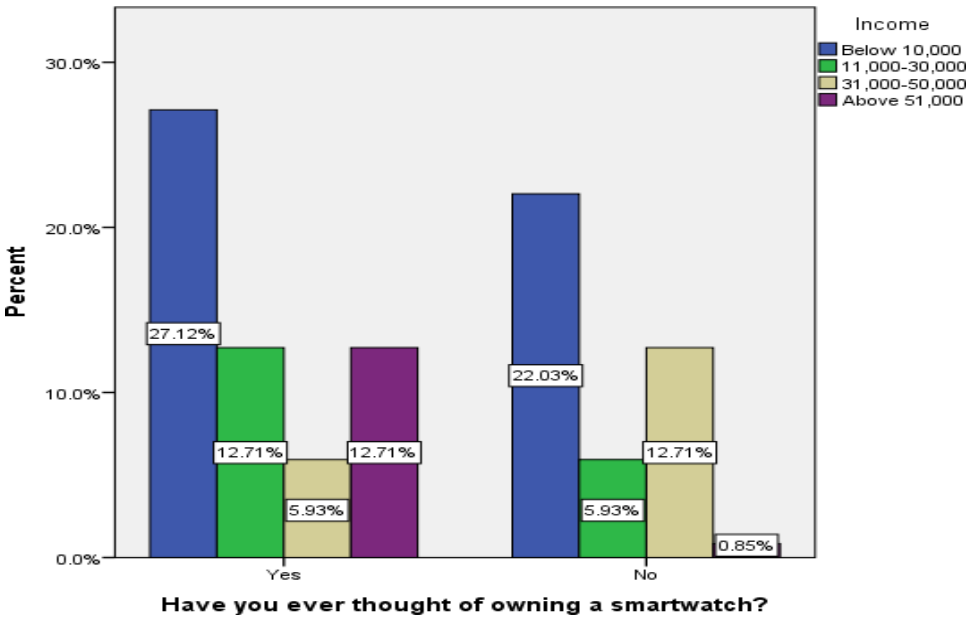
Figure 8:



Source: Primary Data

Legend: Figure 8 presents a cluster bar graph illustrating the percentage analysis of the sample population's perspectives regarding the decline in the analog watch market following the introduction of smartphones. The analysis is categorized by educational qualifications.

Figure 9:



Source: Primary Data

Legend: Figure 9 displays a cluster bar graph depicting the percentage analysis of the sample population's opinions on whether they have considered owning a smartwatch, categorized by income.

Statistical nalysis: Table 1 – Crosstabulation

Income * Have you ever thought of owning a smartwatch? Crosstabulation				
		Have you ever thought of owning a smartwatch?		
		Yes	No	Total
Income	Below 10,000	62	43	105
	10,001-30,000	26	12	38
	30,001-50,000	11	23	34
	Above 51,000	23	2	25
Total		122	80	202

Source: Primary Data

Table 2 - Chi-Square

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.721[a]	3	.000
Likelihood Ratio	24.989	3	.000

Source: Primary Data

Legend: The above table (Table No.2) illustrates the results of the chi-square test conducted on the sample population's consideration of owning a smartwatch, categorized by their income levels.

Table 3: ANOVA

What do you think are the benefits of smart watches?

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.580	4	2.145	2.441	.051
Within Groups	99.293	113	.879		
Total	107.873	117			

Legend: The above table (Table No.3) presents the ANOVA results concerning the sample population's opinions on the perceived benefits of smartwatches, categorized by their educational qualifications.

4. Results

Figure 1 illustrates that a majority of the respondents in the sample population are male, accounting for 59.32%. Figure 2 presents an age-wise breakdown, revealing that most respondents fall within the 18-30 age bracket. Figure 3 details the educational qualifications of the sample, indicating that the predominant category comprises those who

are undergraduate graduates or currently pursuing undergraduate degrees. In Figure 4, the income distribution is shown, with a significant portion of respondents earning below 10,000, and Figure 5 depicts the occupational breakdown, highlighting that the largest group within the sample consists of students. Figure 6 displays the sample population's views on whether smartwatches simplify people's lifestyles. The data indicates agreement among the majority of both male and female respondents. Figure 7 presents a percentage analysis of the perceived benefits of smartwatches, with the majority selecting 'all of the above'—this includes benefits like easy access, fitness tracking, and the ability to answer calls and messages instantly. Figure 8 illustrates opinions on whether the market for analog watches has declined following the advent of smartphones, segmented by educational qualification. Here, a consensus is observed across all qualification groups in affirming this trend. Finally, Figure 9 explores the sample population's thoughts on owning a smartwatch based on income levels. It reveals that, apart from those in the 31,000-50,000-income bracket, the majority across other income groups have considered acquiring a smartwatch. Further Table -1 shows that in the 30,001-50,000-income bracket, there is a greater number of individuals who have not considered owning a smartwatch compared to those who have and the highest income bracket (Above 51,000) shows the greatest disparity between those considering and not considering owning a smartwatch, suggesting a strong interest in smartwatches among higher-income individuals.

5. Discussions

The findings of this study align with previous research highlighting the practical benefits of smartwatches in enhancing daily life. The broad recognition among respondents that smartwatches facilitate an easier lifestyle and offer multifaceted advantages such as fitness tracking, instant communication, and information access reflects similar conclusions found in Kumar et al. (2017) and Robin Singh Chandel et al. (2022), who emphasized users' appreciation of the convenience and diverse functionality of smartwatches. This supports the idea that smartwatches serve as compact, multifunctional devices that appeal to modern consumers seeking efficiency and connectivity, consistent with global trends of smartwatch adoption focused on lifestyle integration.

The observed decline in the analog watch market following smartphone introduction is in line with literature noting the disruptive impact of advanced technology on traditional markets (Chandel et al., 2022).

The fact that most respondents across income levels express interest in owning smartwatches, except for the 31,000–50,000 income group, suggests nuanced consumer behavior influenced by factors beyond income, such as lifestyle preferences and perceived value. This finding partially supports Kumar et al. (2017), who indicated that practical features and perceived uniqueness are more influential than price alone.

Statistical analyses further deepen these insights. The Chi-Square test reveals a significant association between income and consideration of smartwatch ownership, highlighting income's role in purchasing decisions, which corresponds with earlier observations that smartwatches are sometimes viewed as luxury items or status symbols (Blazquez et al., 2020). Meanwhile, the near-significant ANOVA result regarding educational qualification and perception of smartwatch benefits suggests education may subtly influence how consumers perceive value, echoing studies emphasizing demographic factors as critical in adoption behavior (Chandel et al., 2022; Kumar et al., 2017).

Overall, these findings reinforce the literature's assertion that consumer perceptions and purchasing intentions towards smartwatches are shaped by a combination of technological convenience, socio-economic factors, and personal values. They also suggest that targeted strategies recognizing such nuances, particularly addressing specific income groups and educational backgrounds, could enhance market penetration and broader adoption.

7. Limitations

The study faces a few notable limitations. Firstly, the relatively small sample size of 203 participants poses a constraint, as it may not comprehensively represent the broader population's views within a particular country, state, or city. Additionally, the geographic scope of the survey was limited to a specific area, which hinders the generalizability of the findings to a wider audience. Another significant factor is

the varying levels of familiarity with smartwatches among participants, especially among older respondents. This discrepancy in awareness and understanding of smartwatches could introduce a bias in the responses, affecting the overall validity of the study.

8. Conclusion

In conclusion, this paper provides an insightful analysis of the smartwatch market in Chennai, highlighting their growing popularity, especially among younger generations who drive much of the current demand. Smartwatches, as wearable computers integrated with smartphone apps, have established a significant market presence due to their multifunctionality and convenience. However, recent broader market data from India suggest a phase of recalibration, with smartwatch shipments declining for several consecutive quarters amid market saturation and shifting consumer preferences towards premium, feature-rich models. Despite this, the potential remains strong, particularly among untapped older demographics in Chennai. Therefore, smartwatch companies should design innovative strategies targeting these older consumers to expand their reach and market share.

Future research should delve deeper into the barriers and motivations influencing smartwatch adoption across different age groups, especially focusing on older adults. Such understanding will guide more effective marketing and product development approaches, helping sustain growth and encourage wider acceptance of smartwatches within Chennai, India, and beyond amid evolving market dynamics.

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