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Drivers of consumer resistance to smartwatches

Introduction

The current research aims at identifying the reasons for consumers resistance to the smartwatch. Although there has been significant growth in the Internet of Things (IoT) market consumers still exhibit resistance against smartwatch. The study thus focuses on uncovering the factors having a direct impact on the purchase decisions of the consumers. it is important to understand consumers behaviour towards smartwatches. The functionality of electronic products has been changed due to technology advancements. The factors that influence the preferences of customers towards smartwatch include price, functions, usability, durability and awareness. The growth of the smart products in the world has also raised challenges for the companies such as they need to generate an audience that assures earning returns for staying in the business. Consumer resistance to a smartwatch is influenced by socio-economic factors. The study explores the perceptions and views of consumers regarding smartwatch that discourage them from investing in the digital device.

Literature review

The literary studies depict that the consumers of the hybrid and digital industry use various categories for evaluating the use of smart products. They examine multiple categories for the smart products that include smartwatch, activity trackers and other fashion accessories. Various aspects that influence their decision of purchasing a product include technical and economic aspects. They are less likely to buy the product if they feel that it is not for them. The markets of the devices depend on how consumer places perpetual category to each of such product. Appropriate perceptions of the consumer have a significant correlation with the market segmentation of digital products (Gregan-Paxton, Hoeffler, & Zhao, 2005).

Personal perceptions like status symbol attached with the purchase of smartwatch also impact the decision of the consumers. The literature suggests that customers who are more concerned about status symbol exhibit a high likelihood for purchasing a luxury product like a smartwatch. This indicates a strong correlation of digital product with its purchase. The findings of the survey depict that consumers who considered smartwatch as a status necessity were willing to invest in it (Nieroda, Mrad, & R.Solomon, 2018). Self-image plays a significant role in forming the perceptions of the clients. the research reveals that consumers who associate smart products with their personality are more likely to purchase it. While the people who believe that the watch is not important for them to show resistance towards the digital device. Findings reveal, "well-known social roles do in fact link to a consistent set of brands and lifestyle choices and that there is a strong consensus across consumers regarding these linkages” (Chaplin & Lowrey, 2010). People who don't think that smartwatch is important for conveying their high status are less inclined to invest in them. This also indicates that people who are not fashion conscious will not spend on smartwatches (Nieroda, Mrad, & R.Solomon, 2018).

Consumers who care about lifestyle are convinced to purchase smart products. They are concerned about fashion and values of well-being. These clients are interested in facilitating themselves with the organizer, trackers and other features for claiming that they are enjoying updated lifestyles. This allows them to create their self-image as desired (Mania & Chouk, 2017).

The success and selling of smart products are linked to the perceptions of the clients. The evidence confirms the prevalence of customer resistance against smartwatch in the industry. Findings of a study conducted by Accenture 2016 depicts, “62% of consumers believed that these devices are too expensive, 47% of consumers cited ‘privacy risk/ security concerns’ and 64% of consumers experienced a challenge when using a new IoT device” (Mania & Chouk, 2017). The prominent concerns shared by the consumers included price, ease of use and barriers for adopting such devices. The analysis of the results indicates that price remains one of the major factors that cause resistance against smartwatch.

Consumer dissatisfaction also causes resistance against the smartwatch. The survey results depict that clients who find little or no value with the device were unwilling to use it. this reflects that usability remains one of the dominant concerns for the clients. the dissatisfaction of clients regarding smartwatch was also due to the errors in initial models. Many customers stated that they don't intent buy the device until the next version launch.

Price remains one of the significant factors that impact the purchase decision of the consumers. The literature identifies a strong correlation between price and perceptions of the clients. The evidence suggests that consumers who find the smartwatch as affordable and willing to spend on it. Compared to that the clients that find the product expensive or costly exhibits resistance against the purchase of smartwatch. This also indicates the purchasing power of the consumer and its implications on the buying behaviours of consumers.

Lack of awareness or inadequate information about the functions of device discourages customers from buying it. the customers who are unfamiliar with most of the features exhibits high resistance for buying the smartwatch. Their limited knowledge about functionally has a negative impact on their purchase decisions. the study suggests that micro versus multi functionality controls the responses of consumers. The belief of clients that the watch offer limited and unnecessary features exhibit high resistance against the purchase of the product. This indicates that customers are willing to invest in smart watches that provide multiple features (Nieroda, Mrad, & R.Solomon, 2018).

The customers who believe that the smartwatch offers multiple features like time, activity tracker and health stats are more convinced to buy the product. While the clients lacking information about such features are less inclined to spend on the digital device. Multi-variability offered by the smart devices has positive impacts on the purchase decisions. the customers believe that the benefits are not limited so they are more willing to invest in these devices.

The findings of Puri et al., (2017) confirms the positive outcomes of the smartwatch are usability, comfort, and aesthetics of older adults accepting and using activity trackers. It also reveals that user experience is among the factors that update the sustained use of physical activity. Sullivan and Lachman (2016) state that the improvements are visible in the enhanced physical movement including regular walks, exercise and fitness activities. The responses of the participants reveal that they accept that the device irrespective of its tediousness enhanced the physical ability of the users. The results are supported by literature that states awareness of the respondents has a significant impact on overcoming the tediousness. Having adequate awareness regarding the usability of the device is sufficient for overcoming the monotony of the device (Eysenbach, 2017).

Patel, Asch and Volpp (2015) state that respondents having a better knowledge of the functions of the device exhibited a high interaction level that resulted in enhanced usability. The answers of the respondents depict that most of them were not willing to use the tracker for the long-term. The views of the participants indicate that their knowledge of the benefits of the device was limited. They were more concerned about attaining immediate and short-term benefits. The results highlight the impatience of the participants as they focused on receiving instant advantages. The literature supports the results of the study as knowledge and awareness are essential elements for perceiving the benefits of fitness trackers. Personal awareness has a positive correlation with the use of fitness trackers. The respondents exhibiting a high level of personal awareness know the benefits of trackers and their use in maintaining physical fitness. The respondents in the survey show personal awareness as their knowledge on the trackers convinces them to rely on it. The factor of comfortability is associated with personal awareness. The research mentions that the device allowed him to engage in physical activity comfortably. The feelings of comfort reveal his level of awareness as his knowledge allowed him to use the device conveniently (Eysenbach, 2017).

The findings of Ingels et al., (2017) indicate the influence of smartwatch and trackers on daily activities which could affect routine and perhaps interfere with interfering with program or schedules of the respondents. The results are supported by literature stating that the positive aspects identified include; scheduling, managing fitness, setting goals, following a routine and achieving the target. Respondents having high personal awareness and knowledge exhibited positive views on benefits. The empirical evidence confirms that older people with more knowledge of trackers are willing to continue their use in future due (Seifert, Schlomann, Rietz, & Schelling, 2017).

Methodology

The present study adopts a quantitative methodology for conducting research. The primary survey aims to inquire about information from the consumers about their preferences. The survey includes closed-ended questions that yield relevant information from the participants. The purpose of using Quantitative method is the associated level of convincing. It is easy to present the data in a numeric format that include frequency distribution and graphical representation. Quantities data is more convent to interpret and can be related to the literature. In total 15 questions are included that examine the views and behaviour of respondents towards the smartwatch. Socio-economic demographics include information about their gender, employment status, age and education level. The perceptions are evaluated by asking questions related to the price, usability, functions familiarity with the IOT, affordability, awareness and purchase decision (Mania & Chouk, 2017). A five-point Likert scale is used for evaluating the responses of the participants. The consumers are provided with the options (strongly agree, agree, neutral, disagree, strongly disagree).

Questionnaire

A closed-ended questionnaire is designed for conducting an investigation survey from the participants. The demographic section asks questions about age, gender, employment and level of education. The second section asks questions about privacy concerns such as threats to personal privacy. The third section asks questions about the perceived usefulness that refers to the advantages of the smartwatch and value offered by it. The fourth section inquires information about the perceived pricing for determining how pricing impacts the decision of purchasing a smartwatch. The fifth section asks questions that identify the factors that cause resistance against the purchase of smartwatch.

Sample size

The survey targeted 30 participants in assessing their perceptions related to the use of smartwatch. Sampling provides an accurate number of participants that are sufficient to study the large group. The participants' that are included in the primary survey are told about the purpose of the research. Their responses under their free consent and the researcher dies not to influence them about choosing answers. Several factors from the reason to choose the appropriate participants. The population represents the individuals that the research wants to study and involves a large number of people. It is difficult for the researcher to focus on the larger population, so he chooses a small sample from the big population. The technique applies to the selected number of people and leads to further investigation. The beliefs and perceptions of the smaller group represent the views of, the larger population (Alexandrova, 2014).

Ethical considerations

According to Cooper and Schindler (2014), the privacy of information is key factors that cause disputes in data collection. Therefore researcher must keep the procedure transparent and honestly inform regarding all queries, it helps in inducing confidence among participants and get true feedback on questions asked. Regarding literature included in the paper, all references are cited properly to give due credit on the work presented. Name of author and date of publication have been mentioned. Regarding the research ethics, the researcher assured not to mention the names of the participants and the same has been declared to than prior to starting the interview. Moreover, the researcher explained to all the participants that all their answers are confidential and agreement paper has been signed between both parties (Cooper & Schindler, 2014)

In Data Collection Reliability and validity in data collection helps in ensuring the authenticity of the paper and its application in the real world. In this study, the reliability of secondary data will be ensured through their date of publication, analytical data, and references used.

The consent is obtained from the participants before data collection. The researcher informed them about the purpose of research and assured that their information will only be used for the purpose of research. There information

Validity of methodology

The important part of the research is to assess the validity that indicates the scientific soundness of the research and investigation. The primary idea of a researcher is to develop valid conclusions that depend on several other factors. The validity of the research depends on the exclusion of extraneous factors from the research and minimization of the influences that can affect the appropriateness of the study. The methodology also influences the validity of the research, and the main purpose of the research is to enhance its accuracy and eliminate the elements of bias. The internal validity makes the alternative possibilities or hypothesis as plausible. The plausible hypothesis refers to the alternative interpretation that leads to reasonable and justifiable explanations of the relationship between variables.

The external validity refers to the issue when the results of the study are only restricted to the participants of the study. External validity is the ability of the researcher to generalize to the other conditions of the participants. The construct validity focuses on the causal relationship and deals with the congruence of the results and the theoretical underpinnings. Statistical validity indicates the quantitative evaluation that influences the accuracy of conclusions derived from study results. The statistical validity addresses the questions that lead to the evaluation of the reasonability of the results.

Results

Descriptive statistics

Table 1 Descriptive statistics of demographic information

|  |  |  |
| --- | --- | --- |
| Variables | Options | Responses (frequency) |
| Age | 18 -29  30 -44  45 -59  60+ | 21  7  2  0 |
| Gender | Male  Female  Prefer not to say  Other | 17  13  0  0 |
| College degree | Yes  No | 12  18 |
| Employment status | Employed full time  Employed part-time  Not employed  Retired | 13  16  1  0 |
| Do you know what IOT stands for? | Yes  No  Maybe | 11  16  3 |

Table 2 Descriptive statistics of perceptions

|  |  |  |
| --- | --- | --- |
| Variables | Options | Responses (Frequency) |
| I’m concerned about threats to my personal privacy. | Strongly Disagree  Disagree  Neutral  Agree  Strongly agree | 5  11  3  11  0 |
| I’m concerned about data collected smart about my permission. | Strongly disagree  Disagree  Neutral  Agree  Strongly agree | 6  10  8  6  0 |
| The functions of the smartwatch offer little advantages. | Strongly disagree  Disagree  Neutral  Agree  Strongly agree | 9  14  2  5  0 |
| The functions of the smartwatch provide little added values. | Strongly disagree  Disagree  Neutral  Agree  Strongly agree | 10  14  3  2  1 |
| The price of the smartwatch is high. | Strongly disagree  Disagree  Neutral  Agree  Strongly agree | 1  4  8  13  4 |
| The price of the smartwatch is low. | Strongly disagree  Disagree  Neutral  Agree  Strongly agree | 7  13  10  0  0 |
| The smartwatch is expensive. | Strongly disagree  Disagree  Neutral  Agree  Strongly agree | 0  3  12  11  4 |
| I’m likely to be opposed to the purchase of smartwatch. | Strongly disagree  Disagree  Neutral  Agree  Strongly agree | 13  7  6  2  2 |
| I’m likely to ignore smartwatch advertisements. | Strongly disagree  Disagree  Neutral  Agree  Strongly agree | 4  10  2  12  2 |
| The smartwatch is not for me. | Strongly disagree  Disagree  Neutral  Agree  Strongly agree | 16  7  3  2  2 |

**Demographics**

The results obtained from the survey reveals the demographic information of the participants. The findings indicate that the majority of the participants (70%) are having ages between 18-29 years. While the remaining 23% have ages between 30-44 and 7% have ages between 45-59 (figure 1). The information also indicates that the majority (57%) of the respondents are male and 43% are females. The results state that 40% of the participants had college degrees and 60% were without college degrees (figure 3).

The data obtained from the survey further depicts that 53% of the participants were working on a part-time employment basis. While the other 43% were full time employed and 3% were unemployed (figure 4). The results indicate that 53% of the respondents were unfamiliar with the word IOT. The remaining 47% were aware of the meaning and only 3% were unsure (figure 5).

Figure 1 Age of respondents

Figure 2 Gender of participants

Figure 3 Education level

Figure 4 Employment status of participants

Figure 5 Knowledge of IOT

**Privacy concerns**

The second section of the questionnaire obtained information about the privacy concerns on the participants associated with a smartwatch. The findings indicate that the majority (37%) agreed that they were concerned about threats to personal privacy. While the other 36% disagreed about the threats of privacy. It further reveals that 17% strongly disagreed and 10% were neutral about privacy (figure 6).

The results indicate that the majority of the participants were not concerned about the data collected with their permission. The statistics obtained from the survey reflects that 33% disagreed on concerns regarding permission and 20% strongly disagreed. The other 20% agreed that they are concerned about data collection after seeking permission. The remaining 27% were neutral because they didn’t agree or disagreed with the statement (figure 7).

Figure 6 Concerns about privacy

Figure 7 Concerns about data collection

**Perceived usefulness**

The survey also collected information for assessing the perceived usefulness of the device among respondents. To study the perceived usefulness among different age groups the advantages and value were examined. The findings indicate that the majority (46%) disagreed on the statement that smartwatch offers little advantages to the customers. The other 30% participants strongly disagreed and only 17% agreed on the statement. This indicates that only fewer participants accepted the advantages offered by the smartwatch. The remaining 7% failed to give any clear answer and exhibited neutral views (figure 8).

To assess the perceived usefulness of the device the concerns of participants regarding the value of smartwatch was also evaluated. When respondents were asked do you believe that the smartwatch offers little value to the customers, the majority (47%) disagreed on the statement? The other 33% strongly disagreed, 7% agreed and 3% strongly agreed. The results also depict that 10% of the respondents were neutral. The findings reveal that the majority failed to accept the value associated with the device (figure 9).

Figure 8 Advantages of smartwatch

Figure 9 Offered value for customers

**Perceived price**

The questionnaire inquired the perceptions of the respondents regarding the price of the smartwatch. The respondents were asked if they believe that the price of the smartwatch is high. The results obtained from the survey indicate that the majority (44%) agreed that the prices of the device are high. The remaining 13% strongly agreed on the statement, 3% strongly disagreed and 13% disagreed. The results further revealed that 27% of the respondents had neutral views (figure 10).

In the next question, the participants were asked if the prices of the smartwatch are low. The respondents indicate that 44% of the participants disagreed with the statement. The other 33% strongly disagreed and 33% had neutral opinions. This reflects that no respondent agreed on the statement that the prices are low (figure 11).

Figure 10 Price of the smartwatch is high

Figure 11 Price is low

The question inquired the responses of participants regarding the expenses of the device. They were asked if the device is expensive. The results indicate that the majority (40%) had neutral views because they neither agreed or disagreed with the statement. The remaining 37% of the participants agreed that the smartwatch is expensive, 13% strongly agreed and 10% disagreed (figure 12).

Figure 12 Smartwatch is expensive

**Resistance**

The survey also collected data to determine the resistance of the participants against the smartwatch. Their resistance was examined by asking if they opposed to purchasing the smartwatch. The results show that the majority (43%) stated that they are not opposed to the purchase of the smartwatch. The remaining 23% disagreed on the statement, 7% agreed and 7% strongly agreed. The results also depicts that 20% of the respondents had neutral views (figure 13).

The impact of advertisements was also assessed for examining the resistance of the participants. The findings indicate that the majority (40%) agreed that they are likely to ignore advertisements of the smartwatch. The remaining 33% disagreed that they are not likely to ignore the advertisements, 13% strongly disagreed and 7% strongly agreed. The results also indicate that 7% of the participants had neutral concerns (figure 14).

Figure 13 Opposed purchasing

Figure 14 Ignoring advertisements

In the final question the respondents were asked do you believe that the watch is not for you? The findings of the survey show that the majority (53%) strongly disagreed on the statement. This reflects that they believed that the device was for them. The results further state that the remaining 23% disagreed on the statement, 7% strongly agreed and only 7% agreed on the statement. This indicates that the majority didn't believe that the smartwatch is not for them. The remaining 10% had a neutral opinion and they were unable to answer the question (figure 15).

Figure 15 Smartwatch is not for me

Discussions

The results obtained from the survey indicates that most of the respondents were unable to recognize the benefits of the smartwatch. Level of customers' awareness has a significant impact on the purchase decision. The feelings of comfort reveal his level of awareness as his knowledge allowed him to use the device conveniently (Eysenbach, 2017). Lack of knowledge has a negative impact on the purchase decision of the customers.

The findings of the survey show that participants who possessed knowledge about the usefulness of the smartwatch were more likely to buy too. The perceived usefulness is evaluated through considering the value and advantages offered to the customers. Majority participants disagreed or failed to accept the advantages of value offered by the smartwatch. This can be identified as a prominent factor of resistance. Literature reveals that the customers who are unfamiliar with most of the features exhibit high resistance for buying the smartwatch. Their limited knowledge about functionally has a negative impact on their purchase decisions (Nieroda, Mrad, & R.Solomon, 2018).

Price has a significant impact on the resistance of the client against the smartwatch. The results of the survey indicate that the majority of the respondents believed that smartwatch is expensive. Literature provides evidence that prices discourage the buying behaviour of the customers (Mania & Chouk, 2017). The participants that considered that the prices of the smartwatch are high, exhibit high resistance

The findings indicate that the respondents believed that smartwatch is for them. This acted as a factor against resistance. The evidence from literature also confirms that consumers who associate smart products with their personality are more likely to purchase it. While the people who believe that the watch is not important for them to show resistance towards the digital device (Chaplin & Lowrey, 2010).

Conclusion

The study uncovered the factors that cause resistance against the purchase of a smartwatch. The factors that influence the preferences of customers towards smartwatch include price, functions, usability, durability and awareness. Price remains one of the significant factors that impact the purchase decision of the consumers. The literature identifies a strong correlation between price and perceptions of the clients. Personal awareness has a positive correlation with the use of a smartwatch. The respondents exhibiting a high level of personal awareness know the benefits of smartwatch and their use in maintaining physical fitness.

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