



SMART SAFETY BRACLETS – MARKETING RESEARCH PAPER

PROJECT REPORT

BY

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EXECUTIVE SUMMARY / ABSTRACT

The number of elderly people in society is increasing rapidly, and this has created new challenges related to their safety, health, and overall well-being. Many elderly individuals today prefer to live independently, but this also makes them more vulnerable to risks such as falls, medical emergencies, and delayed help. This study focuses on smart safety bracelets as a possible solution to these problems and tries to understand how people perceive and accept such devices. The research is based on secondary data collected from reports, articles, and existing studies related to elderly care and wearable technology. It mainly looks at how consumers, especially family members and caregivers, think about these devices and what factors influence their decision to buy them. Things like ease of use, cost, trust in technology, and usefulness play an important role, along with emotional factors like safety and peace of mind.

KEY WORDS:

- HEALTH
- SAFETY
- ELDERLY
- BRACELET
- EMERGENCY
- WATCH

INTRODUCTION

Over the past few years, there has been a noticeable increase in the elderly population across the world. Better healthcare and living conditions have helped people live longer, but this also brings new responsibilities in terms of care and support. Many elderly individuals now live independently, either because their families live separately or because they prefer to maintain their independence. While this independence is important for their confidence and dignity, it also increases their exposure to risks such as accidents, sudden health problems, or lack of immediate help during emergencies.

This is where technology starts to play an important role. Devices like smart safety bracelets are designed to help elderly individuals stay safe while still living independently. These bracelets come with features such as fall detection, GPS tracking, and emergency alert systems, which allow quick communication with caregivers or family members. In simple terms, they act like a support system that is always present.

However, introducing such a product in the market is not as simple as it seems. Unlike regular gadgets, these devices are connected to emotions like care, trust, and responsibility. People are not just buying a product; they are buying a sense of safety for their loved ones. The main problem this study looks at is why these devices are still not widely used, even though they seem very useful. The aim is to understand how people feel about them, what affects their decisions, and how they can be marketed better.

REVIEW OF LITERATURE

There has been a growing amount of research in recent years on the use of wearable technology in healthcare, especially for elderly care. Many studies suggest that wearable devices can help improve safety, monitor health conditions, and provide quicker responses during emergencies.

For example, a study by Patel, Park, Bonato, Chan, and Rodgers (2012), published in the *Journal of Neuro Engineering and Rehabilitation*, discusses how wearable sensors can be used in healthcare to continuously monitor patients and detect potential health risks. Their research highlights that such devices are especially useful for elderly individuals, as they can help in early detection of problems like falls or irregular heart activity. Similar ideas are also discussed in textbooks such as *Biomedical Informatics: Computer Applications in Health Care and Biomedicine* by Short life and Cimino, which explain how continuous monitoring technologies improve patient care. This supports the idea that smart safety bracelets can play an important role in improving elderly care.

Similarly, research by Preece, Zhao, and Wernick (2019) focuses on fall detection systems using wearable technologies and shows how these systems can significantly reduce emergency response time. This is particularly important for elderly individuals living alone. The importance of such assistive technologies is also highlighted in *Introduction to Biomedical Engineering* by Enderle and Bronzino, where the role of

wearable health devices in improving safety and independence is discussed. This directly connects to one of the key features of smart safety bracelets, making them a practical and relevant solution in real-life situations.

From a technology adoption perspective, the Technology Acceptance Model (TAM) proposed by Davis (1989) is often used to understand why people accept or reject new technology. According to this model, two main factors influence adoption: perceived usefulness and ease of use. In the context of this study, if elderly users or caregivers feel that the bracelet is helpful and easy to operate, they are more likely to accept it. However, if it seems complicated, they may avoid using it.

In addition to this, a study by Heart and Kalderon (2013) examined the adoption of health information systems and found that trust and privacy concerns play a major role in decision-making. This is important because many people are still hesitant to use wearable devices due to fears about data security and misuse of personal information.

From a marketing point of view, Kotler and Keller (2016) explain that consumer behavior is influenced not only by practical benefits but also by emotional factors. In the case of elderly care products, emotions such as safety, care, and peace of mind become very important. This explains why families are often willing to invest in such devices even if they are slightly expensive.

Overall, existing literature shows that wearable technology has strong potential in healthcare, but its success depends on user acceptance, trust, and awareness. While many studies focus on the technical aspects of wearable devices, there is still a need to understand how these products can be effectively marketed, which is what this study aims to explore.

METHODOLOGY

This study takes an exploratory approach to understand how people view and respond to smart safety bracelets designed for elderly care. Instead of conducting surveys or interviews, the research is based on reviewing existing information related to wearable technology and elderly safety. The aim is to bring together different ideas and insights to form a clear understanding of the topic.

The study mainly looks at two groups: elderly individuals, who are the actual users of these devices, and caregivers or family members, who are usually responsible for making decisions about purchasing such products. By looking at existing discussions and observations in this area, the research tries to understand how people think about these devices, what concerns they may have, and what factors influence their acceptance.

The focus of the study is mainly on urban and semi-urban settings, where people are generally more familiar with technology. This makes it easier to understand how such products might be received in environments where awareness is relatively higher. However, this also means that the findings may not fully reflect the situation in rural areas, where access to and familiarity with technology can be different.

Overall, the method used in this study is intended to provide a general understanding of the topic rather than detailed statistical conclusions.

SCOPE OF THE STUDY

This study focuses on understanding the concept and market potential of smart safety bracelets in the context of elderly care. It mainly looks at how these devices are perceived by users and buyers, especially in areas where technology is already a part of daily life. The study is limited to general observations about awareness, acceptance, and usage patterns, without going into technical or engineering details of the product.

The scope is restricted to urban and semi-urban populations, where people are more likely to be aware of wearable devices. It does not deeply cover rural populations or regions where access to technology is limited. The study also focuses more on the marketing and user perspective rather than the technical development of the product.

OBJECTIVES OF THE STUDY

The main objective of this study is to understand how smart safety bracelets can be positioned as a useful product for elderly care. Another important objective is to examine how people perceive such devices and what factors influence their decision to accept or reject them. The study also aims to understand the role of caregivers in the buying process, since they are often the ones making decisions for elderly users. In addition to this, the study looks at the challenges that prevent wider adoption, such as lack of awareness, hesitation towards technology, and cost-related concerns. It also tries to explore how better marketing strategies can help improve acceptance.

RESULTS

The findings of the study show that awareness about smart safety bracelets is still relatively low among elderly individuals, while caregivers and younger family members are somewhat more aware of such devices. This gap in awareness creates a challenge in adoption, as the end users themselves may not fully understand the benefits of the product.

It was also observed that people generally prefer devices that are simple and easy to use. Many potential users are not interested in complicated features, and instead value reliability and basic safety functions such as emergency alerts and fall detection. Trust in the product and brand also plays an important role, as people want to be sure that the device will work properly in critical situations.

Another important finding is that emotional factors strongly influence purchasing decisions. Families are often willing to invest in such products because they provide a sense of safety and reassurance. At the same time, barriers such as cost, lack of awareness, and hesitation toward technology continue to affect adoption.

Overall, the results suggest that while the market potential is strong, there is still a need to improve awareness and make the product more accessible and user-friendly.

ANALYSIS OF DATA

The findings of the study suggest that awareness and understanding of smart safety bracelets are still developing. While caregivers and younger family members show some level of familiarity, elderly individuals often lack clear knowledge about such devices. This creates a gap between the potential usefulness of the product and its actual usage.

It is also clear that people prefer simple and reliable devices over those with complex features. Ease of use plays a major role, especially for elderly users who may not be comfortable with advanced technology. Emotional factors such as safety and peace of mind strongly influence decisions, sometimes even more than price or technical features.

At the same time, concerns related to cost and trust continue to act as barriers. People want assurance that the product will work effectively in emergencies and that it is worth the investment. Overall, the analysis shows that while interest exists, adoption depends on how well these concerns are addressed.

GAPS IN RESEARCH

While this study provides a general understanding of smart safety bracelets and their market potential, there are still several gaps that need further exploration. One major gap is the lack of direct interaction with users, which means the study does not capture personal experiences or detailed opinions.

Another limitation is that the study focuses mainly on urban and semi-urban areas, which may not reflect the reality in rural regions where awareness and access to technology are lower. There is also limited discussion on long-term usage and satisfaction, which could provide deeper insights into how effective these devices are over time.

Future research could include direct feedback from elderly users and caregivers, as well as a comparison between different types of wearable devices to understand preferences more clearly.

DISCUSSION

The findings of this study make it clear that smart safety bracelets are not just technological devices, but also products that carry emotional value. The idea of safety and peace of mind plays a major role in how people perceive these devices. Because of this, marketing strategies should not focus only on features, but also on how the product can improve the lives of both elderly individuals and their families.

One important insight is that caregivers should be the main target audience for marketing efforts, since they are usually the ones making the purchase decisions. At the same time, the product must be designed in a way that is comfortable and easy for elderly users to handle.

Another important point is the need to build trust. People need to feel confident that the device will work properly and that their data will be safe. Collaborations with hospitals, healthcare providers, and senior care organizations can help improve credibility.

However, the study also has some limitations. Since it is based on secondary data, it does not include direct opinions from users. Future research could include surveys or interviews to get more detailed insights. Despite these limitations, the study provides a useful understanding of how smart safety bracelets can be positioned in the market.

CONCLUSION

Smart safety bracelet is an innovative research model which has the potential to become an important part of elderly care in the future.. They offer a combination of safety, convenience, and emotional reassurance, which makes them valuable for both users and their families.

The study shows that while there is strong potential for growth, adoption depends on several factors such as awareness, ease of use, affordability, and trust. By focusing on these areas and improving marketing strategies, companies can increase acceptance and make these devices more widely used.

As the elderly population continues to grow, the need for such solutions will only increase. With the right approach, smart safety bracelets can play a key role in improving the quality of life for elderly individuals and providing peace of mind to their families.

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