International Research Journal Of Business and Strategic Management

Vol 6, Issue 2, pp 32-47, June 24, 2024, © International Research Journal Publishers, ISSN 2710-2742 (online) www.irjp.org

INFLUENCE OF APPLES' COMPETITIVE POSITIONING ON PERFORMANCE OF WEARABLE TECHNOLOGY MARKET IN NAIROBI COUNTY, KENYA

Samuel Nyongesa Suto[*1] & Dr. Peter Simotwo PhD[2]

[*1]Scholar, Mount Kenya University, Kenya

[2]School of Business and Economics, Mount Kenya University, Kenya

Accepted, June 21st, 2024

ABSTRACT

This study analyzed the influence of apples' competitive positioning on the performance of wearable technology market in Nairobi County, Kenya**.** The specific objectives of the study were to determine the influence of customer service positioning and establish the influence of ecosystem lock-in position on the performance of wearable technology market, Kenya. The study utilized a cross sectional research design. A sample size of 118 respondents was determined from a target population of 177 people using Krejcie and Morgan Table. Questionnaires and interview schedules were used in collecting data. The instruments were tested for reliability using Cronbach's Alpha while content validity was assessed using expert opinion. The study employed both descriptive and inferential statistics in analysis and used correlation and regression analysis as key analytical models. Results established varied disparities in performance of wearable technology market. Regression results demonstrated that apples' competitive positioning (customer service positioning, and ecosystem lock-in positioning) had statistically significant influence on performance of wearable technology market. Pearson Correlation Analysis results further demonstrated a positive relationship among customer service positioning, and ecosystem lock-in positioning on performance of wearable technology market. The study recommends more pursuit of apples' competitive positioning as demonstrated in the Resource-Based View Theory and Porter's Five Forces Model of apples' competitive positioning to enhance performance of wearable technology market. Apples' stakeholders in the market, including industry experts and analysts, distributors of competing technology companies, and apple product distributors within Nairobi County should embrace on the strategies that improves apples' competitive positioning in order to improve performance of wearable technology market.

Keywords; *Customer Service Positioning, Ecosystem Lock-In Position, Performance*

INTRODUCTION

The market for wearable devices is growing exponentially each day as the world moves towards miniature devices, especially in fitness tracking and making payments. Tech companies are eager to capitalize on the Wearable devices trend through sophisticated technologies and designs to drive the market forward and be competitive (Sandham et al., 2023). The wearable devices market has undergone significant evolution over the years, driven by technological advances and changing consumer demands. Initially, wearable devices were primarily focused on fitness tracking and essential health monitoring. However,

with advancements in miniaturization, connectivity, and sensor technologies, wearables have become more sophisticated and capable of providing a wide range of functionalities, with basic fitness trackers evolving to include heart rate monitoring, revolutionizing how users can check their well-being.

With the potential to be used for medical purposes, new features are being integrated into wearable devices to address more customer requirements. The smartwatch, for example, has been modified, offering fitness-tracking capabilities and smartphone-like functionalities such as notifications for calls, calendar alerts, and app integrations. The integration of GPS allowed users to track their runs or walks more accurately. Another significant modification that revolutionized healthcare was the advent of medical-grade wearables and wearable ECG patches, which made it possible for remote patient monitoring where doctors could remotely monitor patients' vital signs without visiting a clinic regularly (Kamga et al., 2022). Wearable ECG monitors became popular among individuals at risk or suffering from heart conditions, enabling real-time monitoring while providing accurate data to physicians for diagnosis.

With the increased range of applications of wearable technologies, several organizations are attracted by the business opportunity, which is accompanied by stiff competition. Among the companies that have capitalized in the wearable devices market are Apple, Samsung, Huawei, and Xiaomi. With the experience and capital behind these organizations in the electronic devices market, each is a potential major competitor. Since the market for wearable devices is relatively new and with exponential growth, to be a major player in the market, an organization has to have a strategic plan that captures the current market and has plans that target new markets (Maltseva, 2020). The strategies must also consider the other competitors and the changing technology as customers demand technologically up-to-date devices. Apple Inc., although dominant in the wearable technology market, is an organization that must revise its strategic plans that place it in a competitive position in the market.

According to Polutnik and Way (2018), Apple Inc. became a player in the wearable devices market in 2015 with their product, the Apple Watch. The smartwatch was a major success in changing how people interacted with technology, and because of its success, it encouraged a new age of advancement that combined style and functionality. Since the debut of the Apple watch as the first wearable device by Apple Inc., they have created other wearables that include the Air tag and Air pods to target a wider market. According to a report by Laricchia (2024), Apple holds the largest market share, beating close competitors like Xiaomi, Samsung, and Fitbit, who previously held a larger share of the wearable devices market. It is, therefore, necessary to understand the competitive positioning used by Apple to ensure they maintain and improve their place in the market.

Statement of the Problem

Wearable devices have a wide range of uses, and people are increasingly creating a demand for these devices. The growth of wearable technology is very dynamic as customers' preferences continuously change due to tastes or new trends in the market, and Apple must adapt to the changes in order to meet the consumer's wants and stay relevant in the market. The consumers' preferences and competition from other companies create pressure for fast and unique innovation that meets the market demands, customers' and competitors' demands. Samsung, Xiaomi and Fitbit are actively releasing new products that compete directly with Apple's wearable devices. Therefore, while Apple Inc. has been a successful player in the wearable technology market, it must evaluate strategies and positions in the market to identify the challenges of stiff competition and new technologies and opportunities to secure its position in the market.

Objectives of the Study

i. To examine the influence of customer service positioning on the performance of wearable technology market, Kenya
ii. To establish the influence of ecosystem lock-in position on the performance of wearable technology market, Kenya

LITERATURE REVIEW

Theoretical Framework

Two significant theoretical frameworks applicable in this case are Porter's Five Forces and the SWOT analysis. The SWOT Analysis theoretical framework investigates the strengths, weakness, opportunities and threats facing an organization in a given situation. According to a study by Park and Jayaraman (2021), the key factors that contribute to Apple's competitive position in the wearable technology market are innovation, design excellence, and the ecosystem created by all Apple electronic devices, including the wearable. The ecosystem strategy is a major strength of Apple in the Wearable devices market as it creates customer loyalty broking away the competitors. According to Chen et al. (2021), a weakness that gives Apple's competitors a chance to compete is the high cost of Apple's devices. Apple capitalizes on the middle- and high-income customers but neglects the low-income customers. The competitors, including Samsung and Xiaomi, on the other hand, make both high-end and low-budget devices targeting a wider range of customers, including low-income customers. It's noteworthy that the low-income population form the largest market. The opportunities identified for Apple in the wearable market is room for new innovation that would attract more customers and increase their sales volume. In the wearable devices market the, the threat faced by Apple Inc. is its dependence on third-party suppliers. Dependence on third-party suppliers means that its manufacturing and sales of products are vulnerable to disruption from external factors, including disasters and politics. The COVID-19 pandemic is an example of a factor that directly affected the sales volume of Apples devices. The analysis of Apple's position in the market is deepened by porters five forces analysis.

According to Bruijl (2018), Porter's five forces analysis were created in 1979 to help analyze an organization's competitors and other external factors that affect its competitive position in the market. According to Oliveira (2022), while Apple's competitors, Xiaomi, Samsung, and Huawei, have been making efforts to catch up with Apple's success in the wearable devices sector through new product launches and strategic partnerships, their limited resources and customer loyalty to Apple create significant barriers to a fair competition. However, some smaller players, such as BoAt, are emerging as strong contenders due to their focus on specific niches within the wearable industry. Another factor of Porter's forces is the suppliers' power. According to Veenstra (2018), "Apple self-designs key hardware components like processors and screens" for the Apple Watch, giving them a significant advantage in terms of cost control and innovation compared to external suppliers. Additionally, they have complete control over software development for the watch through their own operating system. However, fashion partners could potentially hold some leverage as they provide access to a new market segment that may not view Apple products as luxury goods alone.

Additionally, the threat of substitution of Apple's devices in the wearable devices market is relatively low. According to Ferguson (2024), the substitute wearable devices are having low performance, and the customers are therefore compelled to continue using the Apple products rather than substituting it for another device. This is because Apple has capitalized on high quality products and cultivated brand loyalty. Another Force of the Porters Analysis is the threat of new entries against Apple. The threat of new entrants in the Wearable market is moderate; a factor that limits new entrants into the market in the high initial capital and the

high cost of brand development. However, there are large organizations with the capacity to enter the wearable devices and directly compete with Apple. Finally, a significant force in the market is the consumers' power, which is often strong. According to Ferguson (2024), the buyers have the power to dictate Apple's action towards meeting their customer requirements. While an individual customer has an insignificant impact on the total company's revenue, their feedback can compel the distributors to shift from one provider to another. Apple must consider customer satisfaction as a critical factor in their position in the market.

Empirical Review

Customer Service Positioning and Performance of Wearable Technology Market

The market for wearable technology has seen significant growth over recent years, with Grand View Research estimating the market size at $61.3 billion in 2022. This rapid expansion is expected to continue, with a projected compound annual growth rate of 14.6 percent from 2023 to 2030 (Grand View Research, 2022). The increasing adoption of technology across diverse sectors, such as healthcare, sports, and fashion, significantly contributes to this trend. Furthermore, the rise of the Internet of Things (IoT), which enables interconnectivity among electronic devices, has bolstered the popularity of wearable technology. Despite its recent surge, the evolution of wearables has a rich history that has paved the way for its current and future developments.

The concept of positioning, as elucidated by Ries and Trout (2021), is critical to understanding the success of wearable technology in today's market. Positioning starts with a product, service, or organization and is about embedding the product into the consumer's mind. It is not merely about the tangible aspects of the product but also about the perception created in the consumer's mind (Ries & Trout, 2021). This strategy is crucial for companies to maintain a competitive edge, as it differentiates their offerings in a crowded market. As Trout (2003) noted, a firm must establish its presence in the consumer's consciousness to withstand competitive pressures. Positioning strategy revolves around the perceived benefits, whether real or imagined, that a product offers to its users (Kotler, 2003).

Wearable technology has undergone several key milestones throughout its evolution. The invention of eyeglasses in the 13th century marked the beginning of wearable technology, setting a foundation for future advancements (Yasar, 2022). The 20th century witnessed significant innovations such as calculator wristwatches in the 1970s and portable music players like Sony's Walkman in the 1980s, which revolutionized personal electronics (Yasar, 2022). The early 2000s saw the advent of Bluetooth headsets and fitness trackers, bringing wearable technology into the mainstream (Yasar, 2022). However, it was the introduction of advanced devices like Google Glass and smartwatches, particularly the Apple Watch, that truly ignited widespread consumer interest (Yasar, 2022). As wearable technology continues to evolve, we can anticipate further innovations, including augmented reality (AR) and virtual reality (VR) headsets and the emergence of smart clothing.

Samsung Electronics ranks third in the wearable market with an 8.5% market share, experiencing significant year-over-year growth. The company shipped 13 million wearables in the fourth quarter of 2020, up from 10.8 million in the previous year (Clover, 2021). Samsung's recent release of the Galaxy Watch series, powered by Wear OS, underscores its commitment to providing a unified user experience across Android devices. Huawei holds the fourth position with a 6.7% market share, shipping 10.2 million wearables in the fourth quarter of 2020, up from 9.5 million the previous year (Clover, 2021). Huawei aims to integrate all its products with Harmony OS to enhance seamless AI Life experiences across multiple devices. Huawei's major wearable products include fitness bands, earphones, and

smartwatches, with the Huawei Watch GT 2 range being particularly popular due to its long battery life and affordability.

Imagine Marketing Private Limited's boAt brand has made a significant impact on the wearable market, becoming the first Indian company to be included among the top players. With a market share of 5% in 2021, boAt experienced remarkable growth, with shipments increasing from 10.2 million units in 2020 to 26.8 million units in 2021, reflecting a year-over-year growth rate of over 163% (Sengupta, 2022). The brand's rapid revenue growth and expansion into new categories like smartwatches have contributed to its success.

Ecosystem Lock-in Positioning and Performance of Wearable Technology Market

Apple Inc. contributes several wearable devices to the wearable market that suit the customer's needs. The wearable devices by Apple Inc. include the Apple Watch, Air Tag, and Air Pods (Apple, 2021). The apple watch is the most significant of the wearable devices by Apple as its creation was the genesis of Apple Inc.'s entry into the wearable devices market. The Watch allowed its users to detach from their mobile phones but stay connected as the watch could receive messages and notifications, therefore creating an easy way to stay connected. The continued modification of the Apple watch's features have increased its demand in the market as it has a wider area of application. The Watch has the capacity to monitor the fitness and health of its user; the inclusion of in-built GPS and water-resistance features attracted its application in the fitness industry both in water related spots and keeping track on one's progress.

Another wearable device by Apple Inc. is the Air pods. The wireless ear buds allow the users to listen to audio as it connects to other apple products including the iPhone and the MacBook. According to Heinze et al. (2020), the Air pods implement a protocol called magic pairing which improves security while maintaining usability and compliance with Bluetooth specifications. Magic pairing allows users to pair their Air Pods once with an Apple device and then easily use them with other compatible Apple devices in their ecosystem. This convenience enhances the user experience, as they can seamlessly switch between different devices without having to go through the pairing process each time. However, despite the overall well-designed nature of magic Pairing, there have been identified vulnerabilities within Apple's implementations during over-the-air and in-process fuzzing tests. These vulnerabilities highlight potential weaknesses that could be exploited by attackers seeking unauthorized access or control over paired devices.

Kasyoka (2011) explored the usage of strategic positioning to attain a justifiable competitive lead at Safaricom Limited: He concluded that using critical advantage technology as a control for Safari-com limited in attaining a supportable competitive advantage over other troupes in the tele-communication division. Munene (2013) studied strategic positioning and administrative performance on oil corporations in Kenya and decided that positioning strategy provides corporations a competitive edge qualified to contestants that allow great productivity. Muriet (2011) observed the strategic positioning and performance of Profitable Banks in Kenya and recognized that strategic positioning was substantial and confident in improving organizational performance. These investigations exposed that organizations have unceasingly used positioning strategies to fix themselves at competitive locations in the industry. And since (Akpoyomare, 2013), admits the idea of positioning strategy as one of the grounds of competitive strategy, there is a need to fill this gap by analyzing the influence of apples' competitive positioning on the performance of wearable technology market in Nairobi County, Kenya**.**

Conceptual Framework

In this study, the research variables will include Apple Inc.'s competitive positioning strategies, which play a role as an independent variable, while market share and total sales are dependent variables at both challenges for Apple Inc. and threats to its position factor, in addition to opportunities for Apple.

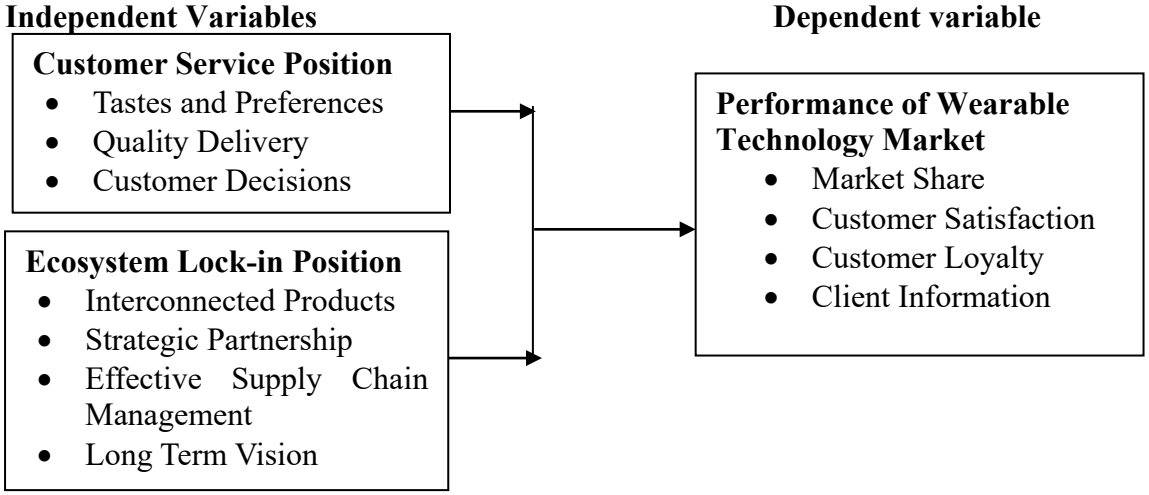

Figure 1: Conceptual Framework

Source: Researcher, (2024)

RESEARCH METHODOLOGY

The study used a cross-sectional research design to collect data across all the wearable technology market in Nairobi County, Kenya**.** This research design was appropriate because it is used to collect data when the target population is widely spread (Creswell, 2012). The target population for this study was people in Nairobi County who use or have an interest in wearable devices. In addition to Apple's customers, the target population included other stakeholders in the market, including Industry experts and analysts, distributors of competing technology companies, and Apple product distributors within Nairobi.

This study used the Krejcie and Morgan's (1970) table for determining sample size. The table indicated that for a population of 177, the corresponding sample size is 118. Thus, a sample of 118 respondents was adopted in the study. A questionnaire with open and close-ended questions was used to ensure that all respondents reply to issues relevant to the dependent and independent variables.

The data collected from the questionnaire was subject to quantitative data analysis. Since the questionnaire mainly contains descriptive data, the information has to be converted into numerical value by assigning numerical variables. The new numerical values were then entered into SPSS analysis software to get the visual analysis of the data. Pearson's linear correlation Coefficient was used for a bivariate analysis showing the relationships between different variables.

RESEARCH FINDINGS AND DISCUSSIONS

The study aimed to reach 118 respondents. Out of the distributed 118 questionnaires, 12 questionnaires were not filled fully thus were disregarded while 106 were fully filled and returned translating to a reply rate equal to 89.83%. This rate of response is within the statistically significant response rate for analysis and generalization of findings to the whole population (Mugenda & Mugenda, 2003).

Descriptive Statistics

Customer Service Positioning and Performance of Wearable Technology Market

Customer service positioning were highlighted by the respondents. The respondents were required to indicate the degree to which they agreed on the statements on customer service positioning in wearable technology market in Nairobi County, Kenya. The Findings are shown in Table 1:

Table 1: Customer Service Positioning

	Mean	Std. Dev.
Wearable technology market is superior to the competitors because it pays attention to environmental and customers' dynamisms	4.632	0.818
Wearable technology market is selective consistent and in offering quality performance of wearable technology market to customers	4.324	0.901
Communication network in wearable technology market is properly coordinated and very efficient	4.125	0.733
Wearable technology market is selective consistent and in offering quality products and services to customers	3.671	1.074
The products and services of wearable technology market are preferred by customers because of switching time	3.540	1.083
Wearable technology market offers a wide selection of products and services to cater for varied customers' preferences	3.342	1.078
Wearable technology market constantly, identifies competencies and capabilities and decides on how best to create value for its customers	3.042	1.053
Overall Mean	**3.811**	

Source: Field Data, (2024)

The respondents to a very great extent with a mean greater or equal to 4 and standard deviation greater than 0.5 indicated that wearable technology market is superior to the competitors because it pays attention to environmental and customers' dynamisms (4.632), wearable technology market is selective consistent and in offering quality performance of wearable technology market to customers (4.324) and communication network in wearable technology market is properly coordinated and very efficient (4.125).

To a great extent with a mean less than 4 and standard deviation less 0.5, wearable technology market is selective consistent and in offering quality products and services to customers (3.671), the products and services of wearable technology market are preferred by customers because of switching time (3.540), wearable technology market offers a wide selection of products and services to cater for varied customers' preferences (3.342) and wearable technology market constantly, identifies competencies and capabilities and decides on how best to create value for its customers (3.042). Customer service positioning influence performance of wearable technology market to a great extent as shown by an overall meanof 3.811. This finding is consistent with that of Samsung Electronics ranks third with an 8.5% market share, witnessing significant year-over-year growth and shipping 13 million wearable in the fourth quarter of 2020 compared to 10.8 million in the previous year (Clover, 2021). Samsung's recent release of the Galaxy Watch series powered by Wear OS demonstrates its commitment to providing unified user experiences across Android devices. Huawei secured fourth place with a 6.7% market share and shipped 10.2 million wearable worldwide in the fourth quarter of the 2020 financial year, marking a substantial increase from 9.5 million units shipped in the prior year (Clover, 2021). Huawei aims to integrate all its products with Harmony to enhance seamless AI Life experiences for users across multiple devices over

time. Huawei's major wearable products include fitness bands, earphones, and smart watches. The Huawei Watch GT 2 range is the highest seller of wearable devices, with its feature of long battery life and an affordable price tag propelling its popularity in the market.

Positioning is the act of forming, establishing the business's intention and insight, and distributing the goods' crucial prominent improvements in the industry so that it pays a certain and measured habitation in the attentions of the target clientele. The consequence of positioning is the victorious creation of a customer-focused intelligence situation, a persuasive clue for unlimited performance (Kotler & Keller, 2009). The users tolerant are a place where every prudent and zealous purchasing excellent is definite (Levi, 2011). As clients are blasted with inexpensive alternative produces to choose from, they develop more cognizant of their moods and predispositions (Kotler, 2002). Positioning defines how the trade pursues to be eminent by the participants regarding the rivalry (Aaker & McLoughlin, 2007).

According to (Kotler & Keller, 2006), Clients are loaded with evidence about products and services. They cannot re-evaluate produce every time they make an obtaining resolution. To expound ordering dynamism construction, users consolidate merchandises into levels (positioning). Ries and Trout (2003) disclosed that a positioning strategy is a tool of competitive warfare. It supports clients to distinguish the accurate variances among contending produces and forms a unique image of the trademark in their thoughts. Perceptions are the procedure of significance creation where the intellect differentiates response schemes and gains certain fundamentals as being warped and it is the main component when trying to comprehend the development of a copy (Heding, Knudtzen, & Bjerre, 2009). By modeling purchasers' insights, they also cope that the crucial advantage of a fruitful positioning strategy is the fractional protection it provides from the competitive forces of another firm. Therefore, positioning is a vital foundation for competitive gain (Seman, 2010).

Imagine Marketing Private Limited's boAt brand has significantly impacted the wearable market, becoming the first Indian company to be included in the top players list. With a market share of 5% in 2021, boAt experienced remarkable growth, with shipments increasing from 10.2 million units in 2020 to 26.8 million units in 2021, with an over-year growth rate of over 163% (Sengupta, 2022). The brand's rapid revenue growth and expansion into new categories like smart watches have contributed to its success.

Ecosystem Lock-in Positioning and Performance of Wearable Technology Market

Ecosystem lock-in positioning was identified by the wearable technology market in Nairobi County, Kenya. The respondents were required to state the extent to which they agreed on the statements on ecosystem lock-in positioning as being adopted by wearable technology market in Nairobi County, Kenya. The Findings are shown in Table 2.

Table 2: Ecosystem Lock-In Positioning

	Mean	Std. Dev.
That apple in wearable technology market is superior than our competitors because of its interconnected products	4.309	0.737
Wearable technology market is selective consistent and in offering strategic partnerships	4.285	0.708
Communication network in wearable technology market is properly coordinated and very efficient	4.125	0.302
Wearable technology market offers range of offerings (products and services) as per customer orientations	4.123	0.301

The products and services of wearable technology market are preferred by customers because of switching time	4.119	0.562
Wearable technology market offers a long-term vision	4.023	0.214
Overall, Mean	**4.164**	

Source: Field Data, (2024)

As shown in Table 2, to a very great extent with a mean greater or equal to 4 and standard deviation greater than 0.5 the respondents indicated that apple in wearable technology market is superior than our competitors because of its interconnected products (4.309), wearable technology market is selective consistent and in offering strategic partnerships (4.285), the communication network in wearable technology market is properly coordinated and very efficient (4.125), wearable technology market offers range of offerings (products and services) as per customer orientations (4.123), the products and services of wearable technology market are preferred by customers because of switching time (4.119) and wearable technology market offers a long-term vision (4.023). This indicates that the wearable technology market in Nairobi County, Kenya applies the ecosystem lock-in positioning as evidenced by a high extent of 4.164

This finding is in line with the finding of Apple, (2021) which contributes several wearable devices to the wearable market that suit the customer's needs. The wearable devices by Apple Inc. include the Apple Watch, Air Tag, and Air Pods The apple watch is the most significant of the wearable devices by Apple as its creation was the genesis of Apple Inc.'s entry into the wearable devices market. The Watch allowed its users to detach from their mobile phones but stay connected as the watch could receive messages and notifications, therefore creating an easy way to stay connected. The continued modification of the Apple watch's features have increased its demand in the market as it has a wider area of application. The Watch has the capacity to monitor the fitness and health of its user; the inclusion of in-built GPS and water-resistance features attracted its application in the fitness industry both in water related spots and keeping track on one's progress.

Kasyoka (2011) explored the usage of strategic positioning to attain a justifiable competitive lead at Safaricom Limited: He concluded that using critical advantage technology as a control for Safari-com limited in attaining a supportable competitive advantage over other troupes in the tele-communication division. Munene (2013) studied strategic positioning and administrative performance on oil corporations in Kenya and decided that positioning strategy provides corporations a competitive edge qualified to contestants that allow great productivity. Muriet (2011) observed the strategic positioning and performance of Profitable Banks in Kenya and recognized that strategic positioning was substantial and confident in improving organizational performance. These investigations exposed that organizations have unceasingly used positioning strategies to fix themselves at competitive locations in the industry. And since (Akpoyomare, 2013), admits the idea of positioning strategy as one of the grounds of competitive strategy, there is a need to fill this gap by analyzing the influence of apples' competitive positioning on the performance of wearable technology market in Nairobi County, Kenya**.**

Another wearable device by Apple Inc. is the Air pods. The wireless ear buds allow the users to listen to audio as it connects to other apple products including the iPhone and the MacBook. According to Heinze et al., (2020), the Air pods implement a protocol called magic pairing which improves security while maintaining usability and compliance with Bluetooth specifications. Magic pairing allows users to pair their Air Pods once with an Apple device and then easily use them with other compatible Apple devices in their ecosystem. This convenience enhances the user experience, as they can seamlessly switch between different

devices without having to go through the pairing process each time. However, despite the overall well-designed nature of magic Pairing, there have been identified vulnerabilities within Apple's implementations during over-the-air and in-process fuzzing tests. These vulnerabilities highlight potential weaknesses that could be exploited by attackers seeking unauthorized access or control over paired devices.

Another popular wearable product by Apple Inc. is the Air tags. The Air tag technology is primarily designed for tracking users' personal items as it can be attached to an item and then powered by the Bluetooth Low Energy technology that allows the pairing with Apple devices like iPhones, MacBooks, and iPads (Ibrahim et al., 2023). This allows for real-time tracking of the object to which they are attached within a certain range. However, if the Air Tag is out of reach from its paired device, it relies on remote location updates provided by other nearby iOS devices. One notable feature of Air Tags is their integration with Apple's Find My network. This enables any nearby iPhones or iPads belonging to other people in the vicinity to help relay location information about an Air Tag that may have been lost or misplaced. The owners of these supporting devices can remain anonymous while still assisting in locating tagged items.

Positioning strategies can be articulated from a diversity of perceptions, they could be advanced from the item characteristics, antagonism, suggestion of products, and kinds of customers involved in the conversation (Karadenize, 2009). Ries and Trout (2001) place unlimited attention on positioning by a participant and add that to be popular today, a company must become a contestant concerned with. The firm must look for feeble points in the positions of its competitor and then unveiling competitive attacks against those weak points (Matthyssens, Vandenbempt & Weyns, 2009). Hooley et al., (2001) established that greater performance is connected with more distinct and largely superior positioning. Suzuki (2000) revealed that the positioning strategy possess a noteworthy consequence on the profitability of a firm. Miles and Mangold, (2005) recognized a positive relationship concerning the right employment positioning strategy and organizations' performance. Thus, this study will assess the influence of apples' competitive positioning on the performance of wearable technology market in Kenya**.**

Performance of Wearable Technology Market

The respondents were required to state the extent to which they agreed on the statements on performance of wearable technology market in Nairobi County, Kenya. The Findings are shown in Table 3.

Table 32: Performance of Wearable Technology Market

	Mean	**Std. Dev.**
Wearable technology market share increase as a result of right application of competitive positioning	4.311	0.743
The profitability margin of wearable technology market improves as a result of right employment of competitive positioning	4.213	0.718
Increase in responsiveness in wearable technology market is as a result of right adoption of competitive positioning	4.132	0.311
The growth in market share in wearable technology market is as a result of right application of competitive positioning	4.112	0.312
Quick response is witnessed in wearable technology market because of proper application of competitive positioning	4.108	0.551
Customer satisfaction is harnessed in wearable technology market as a result of right employment of competitive positioning	4.031	0.324
Overall, Mean	**4.151**	

Source: Field Data, (2024)

As shown in Table 3, to a very great extent with a mean greater or equal to 4 and standard deviation greater than 0.5 the respondents indicated that apple in wearable technology market is superior than our competitors because of its interconnected products (4.311), profitability margin of wearable technology market improves as a result of right employment of competitive positioning (4.213), Increase in responsiveness in wearable technology market is as a result of right adoption of competitive positioning (4.132), the growth in market share in wearable technology market is as a result of right application of competitive positioning (4.112), the quick response is witnessed in wearable technology market because of proper application of competitive positioning time (4.108) and customer satisfaction is harnessed in wearable technology market as a result of right employment of competitive positioning 4.031). This indicates that the performance of wearable technology market in Nairobi County, Kenya is influenced by apples' competitive positioning as evidenced by a high extent of 4.1. This finding is in line with the finding of Sandham et al., (2023) that Tech companies are eager to capitalize on the Wearable devices trend through sophisticated technologies and designs to drive the market forward and be competitive. The wearable devices market has undergone significant evolution over the years, driven by technological advances and changing consumer demands. Initially, wearable devices were primarily focused on fitness tracking and essential health monitoring. However, with advancements in miniaturization, connectivity, and sensor technologies, wearable have become more sophisticated and capable of providing a wide range of functionalities, with basic fitness trackers evolving to include heart rate monitoring, revolutionizing how users can check their well-being.

With the potential to be used for medical purposes, new features are being integrated into wearable devices to address more customer requirements. The smart watch, for example, has been modified, offering fitness-tracking capabilities and smartphone-like functionalities such as notifications for calls, calendar alerts, and app integrations. The integration of GPS allowed users to track their runs or walks more accurately. Another significant modification that revolutionized healthcare was the advent of medical-grade wearable's and wearable ECG patches, which made it possible for remote patient monitoring where doctors could remotely monitor patients' vital signs without visiting a clinic regularly (Kamga et al., 2022). Wearable ECG monitors became popular among individuals at risk or suffering from heart conditions, enabling real-time monitoring while providing accurate data to physicians for diagnosis.

With the increased range of applications of wearable technologies, several organizations are attracted by the business opportunity, which is accompanied by stiff competition. Among the companies that have capitalized in the wearable devices market are Apple, Samsung, Huawei, and Xiaomi. With the experience and capital behind these organizations in the electronic devices market, each is a potential major competitor. Since the market for wearable devices is relatively new and with exponential growth, to be a major player in the market, an organization has to have a strategic plan that captures the current market and has plans that target new markets (Maltseva, 2020). The strategies must also consider the other competitors and the changing technology as customers demand technologically up-to-date devices. Apple Inc., although dominant in the wearable technology market, is an organization that must revise its strategic plans that place it in a competitive position in the market.

According to Polutnik and Way (2018), Apple Inc. became a player in the wearable devices market in 2015 with their product, the Apple Watch. The smart watch was a major success in changing how people interacted with technology, and because of its success, it encouraged a new age of advancement that combined style and functionality. Since the debut of the Apple

watch as the first wearable device by Apple Inc., they have created other wearable that include the Air tag and Air pods to target a wider market. According to a report by Laricchia (2024), Apple holds the largest market share, beating close competitors like Xiaomi, Samsung, and Fitbit, who previously held a larger share of the wearable devices market. It is, therefore, necessary to understand the competitive positioning used by Apple to ensure they maintain and improve their place in the market.

Inferential Analysis

Correlation Analysis

Pearson's correlations analysis was performed at 95% confidence interval to enable establishing the influence of apples' competitive positioning on performance of wearable technology market in Nairobi County. The researcher conducted a Pearson moment correlation in order to determine the correlation of the study variables and results presented in Table 4.

Table 43: Correlation Analysis

		Performance of WTM	Customer Service	Ecosystem Lock-in
Performance of WTM	Pearson correlation coefficient	1		
	Sig. (2 tails)			
Customer Service	Pearson correlation coefficient	.544(*)	1	
	Sig. (2 tails)	0.000		
Ecosystem Lock-in	Pearson correlation coefficient	.603(**)	.456(**)	1
	Sig. (2 tails)	0.000	0.000	

*Correlation is significant at the 0.05 level (2 tailed).

** Correlation is significant at the 0.01 level (2 tailed).

Source: Field Data, (2024)

As shown in Table 4, the results of the study show that customer service positioning ($r=0.544$; $p<0.01$) and ecosystem lock-in positioning ($r=0.603$; $p<0.01$) showed a statistically positive effect on performance of wearable technology market.

Regression Analysis

The study carried out a multiple regression analysis to assess the influence of apples' competitive positioning on the performance of wearable technology market in Nairobi County, Kenya. The results are shown in the subsequent sections.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.861[a]	.741	.709	.052007

a. Predictors: (Constant). Ecosystem Lock-In Positioning, Customer Service Positioning

Source: Field Data, (2024)

From the model summary, the R square (coefficient of determination) is a commonly used statistics to evaluate model fit. The results of the regression analysis indicate that R^2 was .741 or 74.1 %. This shows that the independent variables of apples' competitive positioning (customer service positioning and ecosystem lock-in positioning) of the study explain only 74.1 % of the changes in the dependent variable (performance of wearable technology market). Other variables not in the study contribute to the remaining 25.9% of the changes in performance of wearable technology market. The statistical model shows that when the

independent variables and dependent variable interact, then the model has a correlation coefficient (R) of 0.861 and co-efficient of determination (R-square) of 0.741 signifying a positive relationship between two variables. This implies that the regression model has very good explanatory and predictor grounds.

Table 6: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	31.436	2	15.718	69.589	.001[b]
Residual	23.278	103	.226		
Total	**54.714**	**105**			

a. Dependent Variable: Performance of Wearable Technology Market

b. Predictors: (Constant), Ecosystem Lock-In Positioning, Customer Service Positioning

Source: Field Data, (2024)

From the findings on Table 5, the significance value is 0.001, which is, less than 0.05 thus the model is statistically significant in predicting the effects of the adopted apples' competitive positioning on performance of wearable technology market. The F critical at 5% level of significance was 5.31. Since F calculated (value = 69.589) is greater than the F critical (5.31) this shows that the overall model was significant.

Table7: Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.917	.490		3.708	.000
Customer service positioning	1.878	.378	1.170	4.994	.008
Ecosystem lock-in positioning	1.743	.172	.606	4.274	.001

a. Dependent Variable: Performance of Wearable Technology Market

Source: Field Data, (2024)

From the findings in the regression analysis, if the factors (customer service positioning, and ecosystem lock-in positioning) were held constant, performance of wearable technology market would be 1.917. A unit increase in customer service positioning would lead to an increase in performance of wearable technology market by 1.878. A unit increase in ecosystem lock-in positioning would lead to an increase in performance of wearable technology market by 1.743.

Conclusions

This study assessed the influence of apples' competitive positioning on the performance of wearable technology market in Nairobi County, Kenya. From the inferential statistics, it was concluded that R^2 was .741 or 74.1%. This shows that the four independent variables of apples' competitive positioning (product innovation positioning, brand positioning, customer service positioning, and ecosystem lock-in positioning) of the study explain only 74.1 % of the changes in the dependent variable (performance of wearable technology market). Other variables not in the study contribute to the remaining 25.1% of the changes in performance of wearable technology market. The statistical model shows that when the independent variables (product innovation positioning, brand positioning, customer service positioning, and ecosystem lock-in positioning) and dependent variables (performance of wearable technology market) interact, then the model has a correlation coefficient (R) of 0.861 and co-efficient of determination (R-square) of 0.741 signifying a positive relationship between two variables. This implies that the regression model has very good explanatory and predictor grounds.

Further, the regression results concluded that customer service positioning had great influence on performance of wearable technology market. A further conclusion was made, going by the results of the correlation analysis that the relationship between customer service positioning and performance of wearable technology market was positive meaning that an increase in apples' competitive positioning would lead to significant improvement in performance of wearable technology market.

It was concluded that the ecosystem lock-in positioning greatly significantly influenced the performance of wearable technology market. The implication is that the application of these strategies would lead to a significant improvement in performance of wearable technology market. It was also concluded, as guided by the regression analysis results, that brand positioning influenced performance of wearable technology market. A further conclusion was made, as informed by correlation analysis results, that effective product innovation positioning yields a moderate and positive association with performance of wearable technology market.

Recommendations

The study recommends that the apples' stakeholders in the market, including industry experts and analysts, distributors of competing technology companies, and apple product distributors within Nairobi County adopts the apples' competitive positioning extensively as it has established the positive effect in performance of wearable technology market.

This study adds greater comprehensiveness of the apples' competitive positioning and enhances the understanding of the apples' competitive positioning and their effect on performance of wearable technology market.

From the findings, the study recommends that effective product innovation positioning such as product class, distinct identity, attractiveness and range of offerings are necessary for enhanced performance of wearable technology market. Therefore, the apples' stakeholders in the market, including industry experts and analysts, distributors of competing technology companies, and apple product distributors within Nairobi County Kenya should strive to embrace effective product innovation positioning to improve performance of wearable technology market.

Guided by findings and conclusions on brand positioning, the study recommends an enhanced product attribute, product attributes, brand image, brand loyalty and position by symbol. The application of brand positioning would build a strong and continuous management collaboration platform to enhance performance of wearable technology market.

With regard to customer service positioning (tastes and preferences, quality delivery and customer decisions) the study recommends and appeals to apples' stakeholders in the market, including industry experts and analysts, distributors of competing technology companies, and apple product distributors within Nairobi County Kenya to embrace on the services that improves apples' competitive positioning. Lastly, with regard to ecosystem lock-in positioning (interconnected products, strategic partnership, effective supply chain management and long-term vision), when properly adhered to, the performance of wearable technology market in Nairobi County, would be realized.

REFERENCES

Apple. (2021, April 20). *Apple introduces AirTag*. Apple Newsroom. https://www.apple.com/newsroom/2021/04/apple-introduces-airtag/

Bruijl, G. H. T. (2018, June 7). *The Relevance of Porter's Five Forces in Today's Innovative and Changing Business Environment*. Papers.ssrn.com. https://ssrn.com/abstract=3192207

Chen, X., Liu, Y., & Gong, H. (2021). *Apple Inc. Strategic Marketing Analysis and*

Evaluation. Www.atlantis-Press.com; Atlantis Press. https://doi.org/10.2991/assehr.k.211209.499

Clover, J. (2021). *Apple Continued to Dominate Wearables Market Across 2020*. MacRumors. https://www.macrumors.com/2021/03/15/apple-dominated-wearables-market-2020/

Davies, R. S. (2020). Designing Surveys for Evaluations and Research. EdTech Books. https://edtechbooks.org/designing_surveys

Difford, G. (2024). *Apple Inc.: Sustaining a Competitive Advantage | Grant Difford*. https://www.waking-giants.com/leadership-strategy-articles/apple-inc-sustaining-a-competitive-advantage.

Ferguson, E. (2023, February 22). *Apple Inc. Five Forces Analysis (Porter's Model)*. Panmore Institute. https://panmore.com/apple-inc-five-forces-analysis-porters-model-case-study

Grand View Research. (2021, October). *Wearable Technology Market Size | Industry Report, 2020-2027*. https://www.grandviewresearch.com/industry-analysis/wearable-technology-market

Heinze, D., Classen, J., & Rohrbach, F. (2020). MagicPairing: Apple's Take on Securing Bluetooth Peripherals. *Proceedings of the 13th ACM Conference on Security and Privacy in Wireless and Mobile Networks*, 111–121. https://doi.org/10.1145/3395351.3399343

Ibrahim, H., Asim, R., Varvello, M., & Zaki, Y. (2024). *I Tag, You Tag, Everybody Tags!*

Kamga, P., Mostafa, R., & Zafar, S. (2022). The Use of Wearable ECG Devices in the Clinical Setting: a Review. *Current Emergency and Hospital Medicine Reports*. https://doi.org/10.1007/s40138-022-00248-x

Laricchia, F. (2014). *Global Wearables Market Share (Apple, Fitbit, Xiaomi etc.) 2014-2018*. Statista. https://www.statista.com/statistics/515640/quarterly-wearables-shipments-worldwide-market-share-by-vendor/

Lemieux, A. (2021). *Academic Guides: Theories and Frameworks: Introduction*. Academic guides. https://academicguides.waldenu.edu/library/theory

Maltseva, K. (2020). Wearables in the workplace: The brave new world of employee engagement. *Business Horizons*, *63*(4). https://doi.org/10.1016/j.bushor.2020.03.007

Mate, K. K. V. (2022). Evidence for efficacy of commercially available wearable biofeedback gait devices: a consumer-centered review (Preprint). *JMIR Rehabilitation and Assistive Technologies*. https://doi.org/10.2196/40680

Oliveira, I. D. S. (2022). Analyzing the sustainability of apple's competitive advantage. *Run.unl.pt*. http://hdl.handle.net/10362/139935

Park, S., & Jayaraman, S. (2021). Wearables: Fundamentals, advancements, and a roadmap for the future. *Wearable Sensors*, 3–27. https://doi.org/10.1016/B978-0-12-819246-7.00001-2

Polutnik,L., & Way, M. (2018). Harvard Business Publishing Education.Hbsp.harvard.edu. https://hbsp.harvard.edu/product/BAB344-PDF-ENG

Sandham, M., Reed, K., Cowperthwait, L., Dawson, A., & Jarden, R. (2024). Expensive Ornaments or Essential Technology? A Qualitative Metasynproject to Identify Lessons From User Experiences of Wearable Devices and Smart Technology in Health Care. *Mayo Clinic Proceedings Digital Health*, *1*(3), 311–333. https://doi.org/10.1016/j.mcpdig.2023.05.006

Sengupta, D. (2022, March 14). *boAt Records 163% YoY Growth in the Global Wearables Market in 2021: IDC*. Beebom. https://beebom.com/boat-records-163-yoy-growth-

global-wearables-market-2021-idc/
Sun, Y., Li, Y.-Z., & Yuan, M. (2024). Requirements, challenges, and novel ideas for wearables on power supply and energy harvesting. *Nano Energy*, *115*, 108715. https://doi.org/10.1016/j.nanoen.2023.108715
Veenstra, C. (2018, September 23). *Value creation in activity tracker platform-ecosystems: an analysis of Fitbit and Apple Watch*. Essay.utwente.nl. https://essay.utwente.nl/76647/
Yasar, K. (2022, May). *What is wearable technology? - Definition from WhatIs.com*. Search MobileComputing.https://www.techtarget.com/searchmobilecomputing/definition/wearable-technology.