



# **Consumer Adoption Intention in Wearable Fitness Devices: The Role of Changing Pricing Models**

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## **Abstract**

The wearable fitness device market is currently undergoing a transformation from traditional ownership-based pricing models to subscription-based pricing models. This study examines how these pricing models affect price value, a key determinant of consumer adoption intention as defined by the UTAUT2 framework. A quantitative survey of 265 valid respondents was conducted to assess price value perceptions across three key dimensions that differentiate the pricing models: the amplitude of the initial investment, periodic pricing, and the potential for higher cost of subscription-based models. The results show no significant impact of the initial investment or periodic pricing on price value perceptions, challenging previous research suggesting that subscription models offer benefits through lower barriers to entry and temporal framing. However, when considering the potentially higher cost of subscriptions, subscription-based pricing models showed lower price value perceptions. This suggests that ownership-based pricing may provide a strategic advantage in driving consumer adoption. Nonetheless, it was acknowledged that the perceptual drawbacks of subscription models may be offset by their operational and financial benefits for businesses, depending on their objectives. This study contributes to the academic literature by improving the understanding of cost perceptions in the wearable fitness device market and highlights the need for future research to refine methodologies and to include more diverse samples to increase generalizability.

**Title:** Consumer Adoption Intention in Wearable Fitness Devices: The Role of Changing Pricing Models

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**Keywords:** Wearable fitness devices, pricing models, subscription-based pricing, ownership-based pricing, technology adoption, price value, Unified Theory of Acceptance and Use of Technology 2 (UTAUT2), cost perception, periodic pricing, pricing strategy

## **Sumário**

O mercado de dispositivos portáteis de fitness está em transformação, passando de modelos de preços tradicionais baseados na propriedade do dispositivo para modelos baseados na subscrição. Este estudo analisa como esses modelos afetam o “valor do preço”, um fator crítico na intenção de adoção por parte dos consumidores, conforme definido pela teoria UTAUT2. Foi realizado um estudo quantitativo através de um inquérito com 265 participantes válidos, para avaliar as percepções do valor do preço em três dimensões-chave: a amplitude do investimento inicial, os custos periódicos e o potencial custo cumulativo mais elevado associado às subscrições. Os resultados não demonstraram impacto significativo do investimento inicial ou dos preços periódicos nas percepções do valor do preço, desafiando estudos anteriores que sugerem que os modelos de subscrição oferecem vantagens através de menores barreiras à entrada e enquadramento temporal. Contudo, ao considerar o custo cumulativo potencialmente mais elevado, os modelos de subscrição foram avaliados como tendo um valor de preço inferior. Isto indica que os modelos de preços baseados na posse do aparelho podem oferecer uma vantagem estratégica na promoção da adoção pelos consumidores. Ainda assim, reconhece-se que as desvantagens percebidas das subscrições podem ser compensadas pelos seus benefícios operacionais e financeiros, dependendo dos objetivos empresariais. Este estudo contribui para a literatura académica ao aprofundar a compreensão das percepções de custo no mercado de dispositivos portáteis de fitness e destaca a necessidade de futuras investigações com metodologias mais refinadas e amostras diversificadas para ampliar a generalização dos resultados.

**Título:** Intenção de adoção pelo consumidor de dispositivos portáteis de fitness: O papel da mudança dos modelos de preços

**Autor:** Moritz Cyril Probst

**Palavras-chave:** Dispositivos de fitness portáteis, modelos de preços, preços baseados em subscrições, preços baseados na posse, adoção de tecnologia, valor de preço, Teoria Unificada de Aceitação e Utilização da Tecnologia 2 (UTAUT2), percepção de custos, preços periódicos, estratégia de preços

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# **Chapter 1: Introduction**

## **1.1 Background**

The wearable fitness device industry has recently undergone a notable shift in pricing models. Whereas traditional ownership-based pricing models, used by established brands such as Garmin, Fitbit, and Apple, have been the norm, newer brands like Whoop and Oura have introduced subscription-based pricing models. This shift in pricing model provides an interesting context for analyzing the impact of pricing models on customer price value perception.

The Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) model (Venkatesh et al., 2012) indicates that price value significantly impacts consumer adoption intent. This thesis, therefore, aims to analyze how price value, as one aspect of the UTAUT2 model, is influenced by the chosen pricing model, comparing ownership-based pricing with subscription-based pricing.

Wearable fitness devices, also referred to as wearable fitness trackers, are lightweight digital devices equipped with biometric sensors that continuously collect physical health data without the involvement of healthcare professionals (Becker et al., 2017). These devices typically monitor a variety of fitness metrics, including steps, running or walking distance, calories burned, heart rate, sleep patterns, and more (Kaewkannate & Kim, 2016). The market for wearable fitness devices offers a diverse range of products, which can be classified according to functionality into three main categories: smartwatches, fitness trackers, and hybrid watches (Henriksen et al., 2018). The initial shift in pricing models occurred in the fitness tracker category, though it is likely that other categories will adopt a similar approach if this proves to be a successful strategy.

## **1.2 Problem Statement and Research Questions**

To analyze the impact of shifts in pricing models, this research focuses on the construct of price value as a predictor of consumer adoption intention. Price value is defined as the balance between the perceived benefits of using a technology and the financial costs of acquiring or using it (Venkatesh et al., 2012). It is expected that a shift in pricing models will significantly affect cost perception and therefore price value. This is due to the different payment structures of subscription-based versus ownership-based pricing models. These differences will be explored through the following research question:

*Does the implementation of subscription-based pricing models, with their distinct payment structures compared to ownership-based pricing models, impact price value perceptions in the wearable fitness device market?*

### **1.3 Relevance**

Prior literature on the adoption of wearable fitness devices has centered on the benefit perception of price value, examining utilitarian (Mathavan et al., 2024) and hedonic (Lee & Lee, 2018) value drivers, as well as differences between potential and actual users (Yang et al., 2016) and gender-based differences (Gupta et al., 2020). Although some studies acknowledge price as a significant element in the perception of wearable fitness devices (Lee & Lee, 2018; Yang et al., 2016), there is a notable gap in academic research comparing consumer adoption intentions based on different pricing models. The aim of this paper is to address this gap.

From a managerial perspective, the wearable fitness device industry is undergoing a period of growth. In 2022, the global market for wearable fitness devices was valued at \$47.54 billion and is projected to grow at a compound annual growth rate (CAGR) of over 18%, reaching an estimated \$258.48 billion by 2032 (Gokhale, 2023). This substantial growth signals a significant inflow of new consumers adopting wearable fitness devices, which makes it crucial to gain a deeper understanding of the adoption behavior in relation to pricing models, particularly in light of the recent shift from ownership-based to subscription-based models.

### **1.4 Dissertation Outline**

This dissertation is divided into six chapters. Chapter 1 provides an overview of the wearable fitness device market and introduces the conceptual background. It presents the problem statement, outlines the associated research question, and justifies the relevance of the study.

Chapter 2 reviews the literature related to pricing models and consumer adoption intention, with the objective of developing a conceptual framework for this study. The key aspects of the conceptual framework are further addressed in the literature review in order to define the scope of analysis and develop research hypotheses.

Chapter 3 provides a comprehensive overview of the research methodology utilized. This chapter presents the quantitative research methods, survey design, and offers insights into data collection, data analysis, sample, and the statistical measures used in the following chapter.

Chapter 4 presents the results of this study, namely hypotheses testing, outlining the key findings and addressing the research questions.

Chapter 5 interprets the results in the context of existing literature and discusses their implications for theory and managerial practice. It acknowledges the limitations of the study and offers suggestions for future research.

Chapter 6 provides a concise summary of the entire study, which concludes the dissertation.

## **Chapter 2: Literature Review**

### **2.1 Ownership- and Subscription-based Pricing Models**

The evolution of pricing has seen many industries transition from ownership-based models to fractional ownership and, subsequently, to subscription-based models (Helo et al., 2017). This shift has established subscriptions as the standard for product categories such as music, video streaming, and technology.

In contrast to ownership-based models, where customers obtain permanent access to a product or service, subscription models permit access without transferring ownership (Baumeister & Wangenheim, 2014). Additionally, ownership-based models provide unlimited access following a one-time payment whereas subscription-based models limit access to the duration of the subscription cycle. In order to maintain access, a renewal payment must be made at the end of each cycle (L. Zhang & Zhang, 2024). This represents a significant paradigm shift in the field of services marketing (Lovelock & Gummesson, 2004).

The reason behind this shift is well researched from a business perspective. To illustrate, Y. Zhang (2023) states that companies employing a subscription-based business model experience growth at a rate 3.7 times faster than companies in the S&P 500. Randhawa & Kumar (2008) provided evidence that subscription models are more profitable in large markets with rational, price-sensitive, and quality-conscious consumers. Which is supported by the findings of Iyengar et al. (2022), indicating that consumer spending increases by more than double the pre-subscription level as a result of the implementation of a subscription model. This phenomenon is partially attributed to the sunk cost fallacy (Iyengar et al., 2022). Furthermore, subscription models have been demonstrated to enhance customer loyalty, provide convenience, increase demand (Janzer, 2020), and offer operational benefits to firms (Randhawa & Kumar, 2008).

While there is extensive research on optimizing the design of different subscription models to appeal to customers (Raditya et al., 2022; Wang et al., 2005; Wu et al., 2024), there is a noticeable gap in studies analyzing the impact of a shift in pricing models on consumer adoption intent.

### **2.2 Technology Acceptance Models**

In the literature on technology acceptance, a number of models have been proposed, with the most frequently used being the Technology Acceptance Model (TAM) by Davis et al. (1989). However, as the TAM is primarily concerned with the effects of a technology's perceived usefulness and ease of use on the intention to adopt without explicitly addressing the effect of

costs, it is not well-suited for the analysis of the impact of changes in pricing models on consumer intentions.

In evolution of the TAM and seven other prominent acceptance models, such as the Theory of Planned Behavior, the Theory of Reasoned Action and the Innovation Diffusion Theory, the Unified Theory of Acceptance and Use of Technology (UTAUT) was introduced (Venkatesh et al., 2003). While the UTAUT model was frequently used in research on wearable devices (Kalantari, 2017), similar to the TAM it does not reflect the influence of cost to the extent needed when analyzing pricing models.

Venkatesh et al. (2012) further extended their initial model with the introduction of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). This new model incorporates additional constructs, including hedonic motivation, habit, and price value, which have been found to have a significant impact on consumers' behavioral intentions to adopt new technology. Price value as one predictor of consumer adoption intention is analyzed in more detail in this study.

### **2.3 Price Value**

Price value can be defined as the consumer's perception of the worth of a product, which combines the perceived benefits and the perceived costs (Venkatesh et al., 2012). This trade off in the literature is often also operationalized as price-quality trade off (Monroe, 1990).

In the context of wearable fitness devices, the negative effect of perceived cost (Lee & Lee, 2018; Yang et al., 2016) as well as the positive effect of perceived benefits on consumer adoption intention have been found applicable (Yang et al., 2016).

The current literature on wearable fitness devices that addresses the price value construct is centered around the benefit component. Yang et al. (2016) for example analyzed multiple constructs within the benefit perception finding positive significant influences of functionality, compatibility, visual attractiveness and brand name, while analyzing the cost dimension in less detail. A similar disbalance can be found in other papers such as Mathavan et al. (2024) and Gupta et al. (2020).

However, with the new phenomenon of multiple pricing models in the wearable fitness device industry, more research on the cost dimension is needed to fully understand the impact that different price schemes have on consumers decisions. For this reason, and because the shift in pricing models is not expected to significantly affect benefit perceptions, this study will focus only on cost perceptions and how they affect the price value construct.

## **2.4 Cost Perception**

It is generally assumed that the higher the perceived total cost across the entire consumption process, the less positive consumers evaluate the offer (Lamberton & Rose, 2012; Lovelock & Gummesson, 2004). This perspective is particularly relevant when considering the shift in pricing models. Ownership-based pricing typically involves a larger, one-time payment at the beginning of the consumption process, whereas subscription-based pricing involves smaller, recurring payments that accumulate over time. Given these differences, three aspects have been identified that may influence the cost perception of wearable fitness devices: (1) the amplitude of the initial investment, (2) the periodic pricing of subscription models, and (3) the potentially higher total cost for subscribers over the usage period.

### **2.4.1 Perception of the Initial Investment**

As previously stated, previous studies have shown that perceived costs have a significant impact on price value and, by consequence, on the consumer's adoption intention. While ownership-based pricing models require only a single investment, the initial cost will typically be higher than that of subscription-based pricing models, which involve multiple payments. This suggests that during the initial phase of consumption, subscriptions can provide more affordable access to a product or service (George, 2024). Subscriptions thus provide the opportunity to trial a product at a relatively low financial barrier before fully committing to it (Bray et al., 2021). This is the case particularly when subscription contracts are provided with flexible cancellation policies, enabling customers to switch between offerings at a low cost. Moreover, Roy & Ortiz (2023) state that shorter payment cycles, e.g. monthly versus yearly, result in lower individual payments. This allows customers to more easily correct their choice if it proves unsatisfactory and reduces financial loss in the event that a subscription service ceases to operate.

To the best of the author's knowledge, no research has been conducted on the perception of the initial investment of wearable fitness devices considering different pricing models. However, due to the lower barrier to entry in the subscription model, the following hypothesis is formulated:

*H1: In the wearable fitness device market, the lower initial investment of subscription-based pricing models positively affects price value.*

### **2.4.2 Perception of Periodic Pricing**

While ownership-based models demand an upfront payment, the periodic pricing of subscription models reframes an aggregated expense into smaller amounts (Atlas & Bartels, 2018; Gourville, 2003).

Research on the Pennies a Day (PAD) strategy offers insights into how consumers perceive periodic pricing models. It was found that the reframed cost into smaller amounts make them seem more affordable, increasing the likelihood of a purchase (Gourville, 1998). While the original PAD theory used a per-day framing which would not apply to a subscription model where monthly payments are the norm, it was later proven that the PAD model holds for longer periods as well (Atlas & Bartels, 2018; Hershfield et al., 2020).

Bambauer-Sachse & Grewal (2011) further researched the impact of price level on the benefit of temporal framing. It was found that for low price levels aggregated prices are more beneficial while reframed prices increase purchase intention for higher price levels. In that study, the low price point was set at \$24 per month and the high price point was set at \$240 per month (Bambauer-Sachse & Grewal, 2011).

There has not been a study verifying the PAD strategies for wearable fitness devices. And while the underlying PAD model would suggest positive impacts of temporal framing on the price perception, the price level of wearable fitness devices falls closer to the low price level as set from Bambauer-Sachse & Grewal (2011). It is therefore expected that the shift towards subscription-based pricing has a negative effect on perceived cost for wearable fitness devices, therefore decreasing the price value if the rest of the product is not altered. Hence the following hypothesis is formulated:

*H2: In the wearable fitness device market, periodic pricing of subscription-based pricing models negatively affects price value.*

### **2.4.3 Perception of the Potential Higher Total Cost of Subscriptions**

A subscription-based pricing model may result in a higher cumulative cost over time for a given product when compared to a single purchase transaction (Y. Zhang, 2024). However, the duration of use is usually uncertain at the time of purchase, which makes it challenging to predict the total cost for subscribers (Baumeister & Wangenheim, 2014). George (2024) posits that customers frequently encounter difficulties in accurately estimating their subscription expenditure, even during the course of use, often underestimating the actual cost.

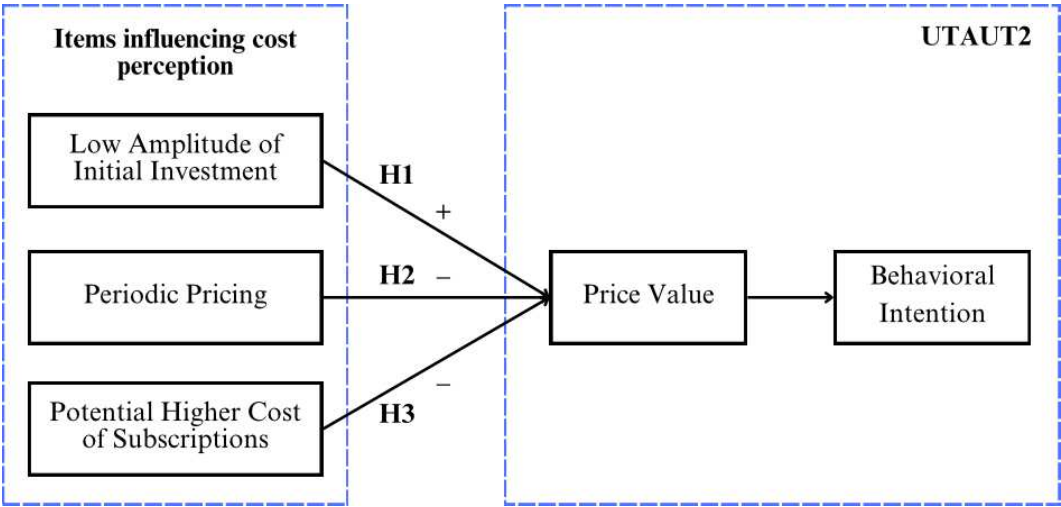
One reason customers may have difficulty with cost estimation is that subscription-based pricing structures are more complex than ownership-based models. Bambauer-Sachse & Mangold (2009) discovered that more complex pricing structures can lead to feelings of manipulation, which could negatively influence cost perception.

In the context of wearable fitness devices, it is noteworthy that while subscription models have the potential to increase total costs over time, this may not have an impact on the average user. Friel & Garber (2020) discovered that, in the United States, the average customer uses wearable

fitness devices for less than a year. This indicates that although subscription models could theoretically result in higher costs, the average user may not experience this due to a shorter usage duration. Nevertheless, customers may still anticipate using their wearable fitness devices for a longer period, which does not protect them from perceiving potential higher costs with a subscription model. Based on these insights, the following hypothesis is formulated:

*H3: In the wearable fitness device market, the potentially higher total cost of subscription-based models negatively affects price value.*

**2.5 Conceptual Model**



*Figure 1: Conceptual model*

Our study aims to assess the impact of the shift from ownership-based to subscription-based pricing models on price value perception in the wearable fitness device market. Three key differences between these pricing models were identified in the literature review as potentially influencing cost perceptions and therefore the consumer adoption intention. The benefit dimension of the price value construct (as defined in the UTAUT2) is assumed to be constant.

## **Chapter 3: Methodology**

### **3.1 Research Approach**

A quantitative research approach was selected to analyze the impact of the independent variables, resulting from the differences between ownership-based and subscription-based pricing models, on the dependent variable of price value. The use of quantitative research methods allows for the measurement and analysis of causal relationships between variables, making this approach suitable for the objectives of the study.

An online questionnaire was utilized to generate the primary data necessary for hypotheses testing. Although online surveys have certain limitations, including the risk of respondents abandoning the survey before completion, the inability to pose clarifying or follow-up questions due to anonymity, and the lack of control over respondents, which can make assessing response quality challenging, they offer several advantages that make them suitable for this study.

Firstly, the anonymity provided by online surveys eliminates the potential for interviewer bias and can reduce social desirability bias, which is particularly beneficial when dealing with sensitive topics such as pricing and cost perceptions. The anonymity encourages respondents to provide answers that are more truthful and precise. Furthermore, online surveys permit respondents to complete the questionnaire at their own pace, thereby allowing them sufficient time to consider each question. To mitigate concerns about response quality, the survey included a mid-survey awareness test designed to filter out respondents who did not follow the given instructions, thereby improving overall sample quality. Finally, online surveys enable researchers to reach a broad sample with limited resources and within a short period of time, making them an efficient and cost-effective data collection method for this study.

The data collection was done using Qualtrics. The survey was accessible online for completion by respondents between 4 November 2024 and 10 November. It was available in both English and German language.

### **3.2 Sample Definition**

In order to achieve a broad and relevant sample size, the study employed a combination of convenience sampling and responses obtained through Prolific. The initial recruitment of participants was conducted via the author's personal social media channels, including WhatsApp, Instagram, and LinkedIn. Although convenience sampling allows for quick data collection at low cost, it is a non-probability technique that may introduce sampling and selection biases. To reduce this limitation supplementary responses were purchased through Prolific, an online platform known for high-quality survey participants.

The target audience of this survey consisted of individuals currently residing in Germany over the age of 18 years. Germany was selected due to its relevance in the wearable fitness device market. With a revenue of 1.466 million euros, Germany is the fourth biggest market for wearable fitness devices in the world and the largest European market (Statista Market Insights, n.d.). Furthermore, no other countries were included in the sample due to the significant income disparities across European countries, which are expected to significantly influence price perceptions (Eurostat, 2023). Future research should include other countries to validate the findings regarding perceptions of subscription-based as compared to ownership-based pricing models.

To ensure that respondents were qualified to answer questions on wearable fitness devices, their level of familiarity with those products was assessed. It was established that respondents had to be at least moderately familiar with wearable fitness devices, otherwise, their responses were excluded from the analysis to enhance the data quality.

### **3.3 Stimuli Development**

In the survey, respondents were presented with different stimuli in the form of prices that illustrated the distinction between ownership-based and subscription-based pricing models of wearable fitness devices. To develop the pricing levels, a price benchmark was conducted involving the seven largest players in the market, namely Apple, Samsung, Fitbit/Google, Garmin, Xiaomi, Huawei, and Polar (Statista Market Insights, n.d.). Additionally, the two brands offering subscription prices, Oura and Whoop, were included in the analysis. Fitbit was acquired by Google in 2021 (Osterloh, 2021), which is why the two brands are listed together. However, Google continues to market wearable fitness devices under both brand names.

The two companies offering subscription-based pricing models, Oura and Whoop, are positioned in the premium segment of the wearable fitness device market, both in terms of pricing and performance, as they offer some of the most accurate tracking data available (Miller et al., 2022; Schyvens et al., 2024). Accordingly, to ensure a fair comparison of pricing models, the price benchmark for ownership-based models is based on the premium products of each brand, with the exclusion of any special editions that may be sold at higher prices. The prices were obtained from each brand's German website on October 12, 2024.

*Table 1: Pricing Stimuli*

	<b>Initial Expenditure</b>	<b>Monthly subscription cost</b>
<b>Ownership-based pricing models</b>	680 €	0 €
<b>Subscription-based pricing models</b>	0 €	30 €
	400 €	6 €

Table 1 displays the pricing levels utilized in the survey. The ownership price represents the rounded average price derived from the conducted price benchmark. The subscription prices are the rounded prices offered by Oura and Whoop for the standard configuration of each device. It should be noted that Whoop offers discounted monthly rates for upfront payments, which were not considered for the purposes of this study.

### **3.4 Questionnaire Design**

The questionnaire consisted of four sections, beginning with the sample characterization to filter out respondents who did not meet the sampling criteria. Qualified respondents were then divided into three groups, each of which were presented with a specific stimulus. The stimuli displayed a wearable fitness device with three different price options and a framing unique to each group (see Appendix 2): Group 1 is primed on the amplitude of the initial expenditure, Group 2 on the aspect of periodic pricing, and Group 3 on the potentially higher long-term costs associated with subscriptions.

After reviewing the stimuli, respondents in each group answered questions designed to assess their perceptions of the price value of each offer. To evaluate price value perception after the stimuli were presented, the original questions from the UTAUT2 model by Venkatesh et al., (2012) were adapted to fit the purpose of comparing different pricing models for wearable fitness devices. Consistent with Venkatesh et al. (2012), a 7-point Likert scale ranging from "strongly disagree" to "strongly agree" was used. The questionnaire concluded with demographic questions, resulting in a total of 14 closed questions.

*Table 2: Questionnaire Design*

<b>Section</b>	<b>Item</b>	<b>Source</b>
Sample Characterization	[Q1] Age	n/a
	[Q2] Country of residence	n/a
	[Q3] Product familiarity	n/a

*Table 3: Questionnaire Design (continued)*

Stimuli Group 1 (Priming)	As you answer the following questions, keep in mind that <b>option 1</b> involves a <b>more significant initial expenditure</b> while the initial expenditure for <b>options 2 and 3</b> are <b>less significant</b> , but require recurring monthly payments after that. Consider how this <b>difference of the initial expenditure</b> at the moment of purchase might affect your perception.	n/a
Stimuli Group 2 (Priming)	As you answer the following questions, keep in mind that <b>option 1</b> involves a <b>single upfront payment</b> , while <b>options 2 and 3</b> require <b>recurring monthly payments</b> . Consider how this <b>difference of payment structure</b> and explicitly how the <b>monthly payments</b> might affect your perception.	n/a
Stimuli Group 3 (Priming)	As you answer the following questions, keep in mind that <b>options 2 and 3</b> require monthly payments, which potentially result in a <b>higher total cost</b> compared to the fixed price of option 1 if used over an <b>extended time period</b> . Consider how this <b>potential for higher cost</b> might impact your perception.	n/a
Price Value Perception Price Option 1	[Q4] Option 1 is reasonably priced	Venkatesh et al. (2012)
	[Q5] Option 1 is good value for money	
	[Q6] Option 1 provides a good value at the current price	
Price Value Perception Price Option 2	[Q7] Option 2 is reasonably priced	Venkatesh et al. (2012)
	[Q8] Option 2 is good value for money	
	[Q9] Option 2 provides a good value at the current price	
Price Value Perception Price Option 3	[Q10] Option 3 is reasonably priced	Venkatesh et al. (2012)
	[Q11] Option 3 is good value for money	
	[Q12] Option 3 provides a good value at the current price	
Demographics	[Q13] Gender	n/a
	[Q14] Income	n/a

## **Chapter 4: Data Analysis & Results**

### **4.1 Quantitative Data Analysis**

The statistical analysis of the collected quantitative data was performed using IBM SPSS Statistics, version 29.0.2.0 (20). The data was cleaned according to the pre-established sample criteria. All survey items were relabeled, and the price value items for the three price options were computed using responses to the three survey questions adopted from Venkatesh et al. (2012).

Frequency and descriptive analyses were conducted to characterize the sample, and the reliability of the price value construct was validated using Cronbach's Alpha. To test the hypotheses, multiple repeated-measures ANOVAs were conducted for each of the three groups. This approach enabled a comparison of the means of perceived price values across the three pricing options, representing subscription-based and non-subscription-based pricing models. A confidence interval of 95% was applied to all statistical tests, therefore p-values < 0.05 were considered statistically significant.

### **4.2 Sample Characterization**

A total of 388 survey responses were initially recorded. Of the total number of respondents, 6 were excluded due to incomplete survey submissions, and 48 were removed from the data set as their current place of residence was not in Germany. Furthermore, 48 respondents were excluded due to a lack of familiarity with wearable fitness devices, 5 for failing to understand the differences between the pricing models or the associated priming, and 16 due to an incorrect response to the included awareness test. Following the application of these criteria, 265 responses were deemed valid for analysis, resulting in a valid response rate of 69.07%.

The final sample consisted of 57.4% male and 40.8% female respondents (Appendix 3). The younger age groups of 18–24 and 25–34 were the most represented, accounting for 29.06% and 50.57% of the sample, respectively (Appendix 4). The majority of respondents indicated an annual gross income within the range of €10,000 to €19,000. Additionally, 4.15% of respondents preferred not to disclose their income information (Appendix 5).

When compared to the general German population, it has to be noted that this sample cannot be considered representative. The younger age groups were overrepresented, as were men, although to a lesser extent. Furthermore, the average gross income per year in Germany in 2023 was approximately €54,000 (Statista Research Department, 2024), indicating that this sample disproportionately represents individuals with lower income levels. These deviations from the

general population are to be expected, given the convenience sampling method, which included a significant proportion of students from various universities.

### 4.3 Reliability Analysis

To assess the construct of price value for each price option included in the survey, the three-items scale proposed by Venkatesh et al. (2012) was applied. To test the reliability of this scale, the Cronbach's Alpha coefficient was used to assess the internal validity and consistency of the construct.

*Table 4: Reliability Statistics*

Cronbach's Alpha Price Option 1	Cronbach's Alpha Price Option 2	Cronbach's Alpha Price Option 3	N of Items (each)
.951	.951	.959	3

The scales utilized in the questionnaire displayed consistently high Cronbach's Alpha values, all exceeding 0.9, indicating strong reliability. Furthermore, Item-Total Statistics were analyzed to determine whether all items within the scale contributed to the reliability of the construct. The analysis demonstrated that the removal of any item would result in a reduction in Cronbach's Alpha (Appendix 6). Consequently, the price value construct was calculated using all three items for each price option.

### 4.4 Descriptive Statistics

The data set of 265 valid respondents was divided into three groups based on the priming they received after viewing the stimuli. The first group, consisting of 85 respondents, was primed to consider the low amplitude of the initial investment. The second group, composed of 87 respondents, received priming about periodic pricing. The final group, consisting of 93 respondents, was primed to consider the potentially higher cost of subscriptions. Differences in group sizes resulted from data cleaning, which excluded certain respondents across all of the groups.

The following analysis compares differences in price value perceptions among the three pricing options within each group to identify potential variations in mean scores. For clarity, the pricing options included in the survey are referred to as O1, O2, and O3 in the displayed tables. O1 refers to the ownership-based pricing model, O2 refers to the subscription-based pricing model with no initial investment and a monthly subscription fee of 30€, and O3 refers to the subscription-based pricing option with an initial investment of 400€ and recurring monthly fees of 6€.

#### 4.4.1 Low Amplitude of Initial Investment

The group primed to specifically consider the initial investment when evaluating their price value perceptions showed only slight variations in mean scores, ranging from 3.69 to 3.98. Among the options, Price Option 2, which included no initial investment, received the highest mean rating, closely followed by Price Option 1, which represented an ownership-based pricing model. In contrast, Price Option 3 had the lowest mean rating, suggesting that this pricing approach was perceived less favorably by respondents.

Given that the construct was measured on a 7-point scale, with 4 representing the neutral midpoint, it is worth noting that all three pricing options tended to cluster near the midpoint, with a slight tendency towards a negative perception.

The standard deviation of the responses, ranging from 1.70 to 1.80, indicates a relatively high level of variability when compared to the dispersion in the other investigated groups. This dispersion implies diverse opinions among respondents regarding the perceived value of the different price options.

*Table 5: Descriptive Statistics Group 1*

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
O1_Price_Value	85	3.8706	1.70596
O2_Price_Value	85	3.9765	1.79711
O3_Price_Value	85	3.6941	1.69750
Valid N (listwise)	85		

#### 4.4.2 Periodic Pricing

After being primed to specifically consider the periodic pricing aspect, respondents assigned a higher mean score to Price Option 1 (4.01), which represents the one-time payment model, compared to Price Options 2 (3.91) and 3 (3.95), both of which represent subscription-based pricing models with periodic pricing schedules. However, the differences in mean scores appear relatively small, with all three price value ratings clustering near the midpoint of the scale, indicating a generally neutral perception.

This group also exhibits a notable variability in responses, as reflected in the standard deviation. This again suggests a wide range of opinions among respondents regarding the perceived value of the different pricing options.

**Table 6: Descriptive Statistics Group 2**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
O1_Price_Value	87	4.0115	1.46928
O2_Price_Value	87	3.9119	1.67784
O3_Price_Value	87	3.9502	1.42652
Valid N (listwise)	87		

#### **4.4.3 Potential Higher Cost of Subscriptions**

Greater differences in mean scores were observed in the group primed to consider the potential higher cost of subscriptions over time. Price Option 1, representing the ownership-based model, was perceived as offering the highest price value perception, with a mean score of 4.65. This indicates a perception that leans toward the positive side of the scale. In contrast, both subscription-based pricing models had mean scores below 4, reflecting a more negative price value perception. Price Option 2, characterized by higher monthly subscription fees, registered the lowest mean score of 3.67, while Price Option 3 had a slightly higher mean score of 3.98. Notably, this group displays the lowest standard deviation compared to the other groups, suggesting less variation in price value perceptions and a more consistent rating across respondents.

**Table 7: Descriptive Statistics Group 3**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
O1_Price_Value	93	4.6452	1.26243
O2_Price_Value	93	3.6667	1.57655
O3_Price_Value	93	3.9785	1.35473
Valid N (listwise)	93		

#### **4.5 Analysis of Mean Differences**

This chapter presents the statistical analysis conducted to evaluate the hypotheses. By examining the significance of the mean differences in price value perceptions across the three pricing options, conclusions are drawn about the effect of subscription-based pricing models versus ownership-based pricing models.

##### **4.5.1 Low Amplitude of Initial Investment**

To address the first hypothesis, *in the wearable fitness device market, the lower initial investment of subscription-based pricing models positively affects price value*, data from the group primed to focus on the lower initial investment of subscription models were analyzed using repeated measures ANOVA.

*Table 8: ANOVA - Pairwise Comparison of Price Value Group 1*

(I) Price_Option	(J) Price_Option	Mean Difference (I-J)	Std. Error	Sig	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
O1	O2	-.106	.261	.686	-.624	.412
	O3	.176	.205	.392	-.232	.585
O2	O1	.106	.261	.686	-.412	.624
	O3	.282	.216	.196	-.148	.713
O3	O1	-.176	.205	.392	-.585	.232
	O2	-.282	.216	.196	-.713	.148

The results indicated no significant mean differences in perceived price value among the three pricing models. Significance levels ranged from  $p=0.196$  to  $p=0.686$ , indicating that participants who were primed to consider the amplitude of the initial investment did not perceive subscription-based pricing models as offering greater price value compared to ownership-based models. Consequently, the hypothesis that the lower initial investment of subscription-based pricing models positively affects price value is not supported by this analysis.

#### 4.5.2 Periodic Pricing

To examine the effect of periodic pricing on price value perceptions, data were analyzed from the group primed to focus specifically on the aspect of recurring payments. Based on previous literature, a negative effect of periodic pricing on price value perceptions was expected. This hypothesis was tested using repeated measures ANOVA.

*Table 9: ANOVA - Pairwise Comparison of Price Value Group 2*

(I) Price_Option	(J) Price_Option	Mean Difference (I-J)	Std. Error	Sig	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
O1	O2	.100	.212	.640	-.322	.521
	O3	.061	.197	.756	-.329	.452
O2	O1	-.100	.212	.640	-.521	.322
	O3	-.038	.190	.841	-.417	.340
O3	O1	-.061	.197	.756	-.452	.329
	O2	.038	.190	.841	-.340	.417

The analysis revealed no significant mean differences in price value perceptions across pricing models, with significance levels ranging from  $p=0.640$  to  $p=0.841$ . This lack of significant differences indicates that participants did not perceive periodic pricing as altering the price

value of different pricing models. Therefore, the hypothesis, *In the wearable fitness device market, periodic pricing of subscription-based pricing models negatively affects price value*, is rejected.

#### 4.4.3 Potential Higher Cost of Subscriptions

The final hypothesis, *In the wearable fitness device market, the potentially higher total cost of subscription-based models negatively impacts price value*, was tested using a repeated measures ANOVA. This analysis focused on the group of respondents primed to consider the potential of overpaying for subscriptions over an extended period of time.

*Table 10: ANOVA - Test of Within-Subject Effects Group 3*

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Price Option	Sphericity Assumed	46.473	2	23.237	14.218	<.001	.134

The test for within-subject effects revealed a significant mean difference between the three pricing options for this group of respondents, as indicated by the p-value of <0.001. The test assuming sphericity was used as Mauchly's test for sphericity indicated no significant violation of the assumption (p-value = 0.0414).

The partial eta squared value indicates that 13.4% of the variance in price value perception is explained by the pricing model. This suggests a moderate effect size, highlighting the importance of the pricing model when respondents consider total cost.

*Table 11: ANOVA - Pairwise Comparison of Price Value Group 3*

(I) Price_Option	(J) Price_Option	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
O1	O2	.978	.198	<.001	.585	1.372
	O3	.667	.176	<.001	.318	1.016
O2	O1	-.978	.198	<.001	-1.372	-.585
	O3	-.312	.188	.100	-.684	.061
O3	O1	-.667	.176	<.001	-1.016	-.318
	O2	.312	.188	.100	-.061	.684

The pairwise comparison revealed that there were significant mean differences between Price Option 1, representing ownership-based pricing models, and Price Options 2 and 3, both representing subscription-based pricing models. There was no significant mean difference

between the two different subscription-based pricing models, suggesting that the structural differences between the two do not influence the price value perception of this sample.

Considering the mean scores assessed in the previous descriptive section, it is evident that ownership-based pricing models provide significantly higher price value than subscription-based pricing models when respondents were primed to consider the total cost dimension. These results support the third hypothesis, confirming that the potentially higher total cost associated with subscription-based pricing models negatively impacts perceptions of price value in the wearable fitness device market.

## **Chapter 5: Discussion**

### **5.1 Interpretation and Discussion of Key Findings**

To address the research question of whether the introduction of subscription-based pricing models in the market for wearable fitness devices, a market traditionally dominated by ownership-based pricing models, affects price value as defined by the UTAUT2 framework, three core differences between the pricing models were assessed.

The first dimension focused on the lower upfront costs associated with subscription-based pricing models. Price Option 2, which required an initial investment of 0€, was expected to have the highest perceived price value compared to Price Options 1 and 3, which required higher initial investments of 400€ and 680€ respectively. While descriptive statistics indicated a marginal preference for price option 2, the analysis of mean differences showed no statistically significant difference between the three options. This result contradicts H1, which stated that lower initial costs would positively influence price value perception. This finding suggests that consumers remain indifferent to the initial investment when choosing between identical wearable fitness devices with different pricing models. While subscription-based models may lower the initial financial barrier, the overall price value perception appears to be neutralized by other factors in the pricing model, such as long-term cost implications or payment structures.

The second dimension explored the periodic payment schedules specific to subscription-based models. Similar to the first dimension, the results showed no significant difference in perceived price value between the subscription- and ownership-based pricing models. This suggests that consumers do not perceive periodic payments, which spread costs over time, as decreasing price value compared to a single upfront payment. Contrary to H2, the lower recurring payments of subscription-based models did not influence price value perceptions significantly. Instead, respondents showed indifference, potentially due to the psychological burden of ongoing payments offsetting the perceived affordability of smaller instalments.

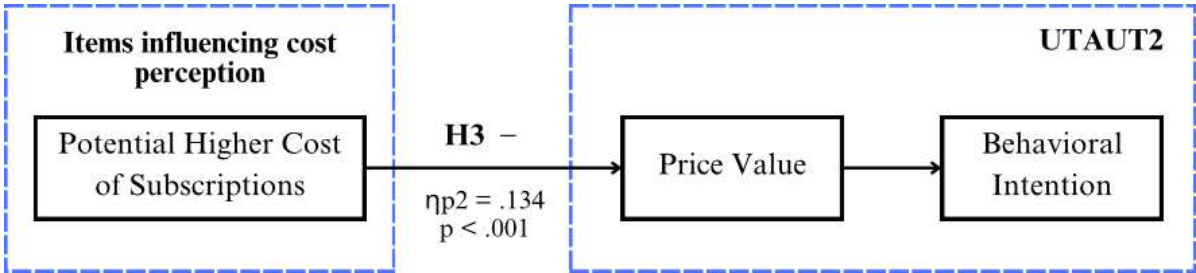
The indifference observed in the first two hypotheses could be attributed to several factors. First, consumers may find it difficult to evaluate subscription-based pricing models due to their complexity and potential uncertainties, such as the management of recurring payments. This complexity may offset the perceived benefit of a lower initial investment. In addition, consumers may have limited trust in subscription models, often associating them with hidden fees or complicated cancellation processes, which can make periodic pricing less attractive despite its lower financial barrier to entry. Furthermore, as this study focuses on the premium

segment of the wearable fitness device market, consumers in this category may be less price sensitive than other market segments. As a result, upfront costs or payment frequency may be less important, with purchase decisions shifting to factors such as product features, technological innovation or brand reputation. Finally, subscription-based pricing implies a longer-term financial commitment. Although many models offer flexible cancellation policies, the perception of long-term commitment may remain, possibly explaining the observed indifference to the lower financial barrier or periodic payment structure.

The third dimension, focusing on the potential for higher cumulative costs in subscription-based models, revealed a significant preference for ownership-based pricing. Ownership models were perceived as offering higher price value, supporting H3. This suggests that consumers perceive the long-term financial commitment and cost uncertainty associated with subscriptions as a key barrier when assessing price value. Interestingly, while only a small proportion of consumers may experience these higher cumulative costs due to the average usage duration of less than one year in the United States (Friel & Garber, 2020), the possibility of higher total costs alone appears sufficient to negatively impact perceptions. This highlights the psychological weight of cost uncertainty and aversion to potential long-term financial commitments.

While the effect size of this dimension was moderate, explaining 13.4% of the variance, it suggests that other factors, such as brand reputation, device features or additional value-added services, may play an important role in determining overall price value perceptions. This study held the benefit dimension constant by assuming identical product attributes across pricing models, which may not fully capture the complexity of consumer decision making but was the only way to assess the effect of different pricing schemes, which was the focus of this study.

Summarizing the results of the three hypotheses, it can be concluded that subscription-based pricing models in the wearable fitness device market are generally perceived as offering lower price value. While both the lower initial investment and the periodic payment structure of subscription models did not significantly influence price value perceptions, the potential for higher long-term costs was found to significantly negatively influence price value.



*Figure 2: Interpretation within the conceptual model*

Using price value as the construct assessed in this research, as defined by Venkatesh et al. (2012), these findings can be interpreted in the context of the UTAUT2 framework. Within this framework, price value acts as a predictor of consumer adoption intention. Given that subscription-based pricing models negatively influence price value in the context of wearable fitness devices, it can be assumed that these pricing models reduce consumer adoption intention compared to an ownership-based pricing model, if all other constructs within the UTAUT2 framework remain constant. The results suggest that while the price value construct is critical to adoption intentions, its interaction with psychological factors such as trust, and perceived complexity may require further investigation within the UTAUT2 framework. Future studies could incorporate these factors to refine the framework.

Comparing the results of this study to the broader literature on cost perceptions beyond the context of wearable fitness devices, the findings are consistent with Lamberton & Rose's (2012) findings that higher perceived total costs across the consumption process lead to less favorable evaluations of an offering, as respondents rated subscription-based models lower after being primed with information about the potential for higher total costs over time. This is also consistent with Bambauer-Sachse & Mangold's (2009) research, which highlighted the negative impact of more complex pricing structures, such as subscriptions, on cost perceptions.

In contrast to previous research suggesting that the lower barrier to entry of subscription models, facilitated by a lower initial investment, would improve consumer perceptions (Bray et al., 2021; George, 2024), this study did not find such an effect in the context of wearable fitness devices. When directly comparing subscription-based and ownership-based pricing models, the lower initial cost of subscription-based models did not lead to higher price value perception. Suggesting that the reduced financial barrier to entry does not translate into an improved overall price value perception in this market.

Furthermore, the literature on the pennies-a-day strategy suggested an effect of periodic pricing on consumer price perception (Atlas & Bartels, 2018; Bambauer-Sachse & Grewal, 2011; Gourville, 1998; Hershfield et al., 2020). Following the specific proposal of Bambauer-Sachse & Grewal (2011), which included different price levels, it was expected that periodic pricing would have a negative effect on price value. However, no significant effect was found, indicating that in the direct comparison of the different pricing models, the aspect of periodic pricing does not influence price value perception.

## **5.2 Academic Implications**

The existing literature on wearable fitness devices has rarely focused on price perceptions and, to the best of the author's knowledge, no previous research has compared subscription-based and ownership-based pricing models in this market. This research fills this gap and provides a new perspective on how pricing models influence price value and consequently consumer adoption intentions in the wearable fitness device market.

Moreover, as discussed in the previous section it is concluded that this research not only provides new insights into the role of pricing models in the wearable fitness device market but also challenges some assumptions from the broader literature on cost perceptions by highlighting differences in perceptions when pricing models are directly compared. The findings of this study may be applicable to other technology-driven product categories that are undergoing a transition from ownership-based to subscription-based pricing models. One such example is sports streaming hardware, such as Peloton's fitness equipment. Furthermore, an increasing number of Internet of Things (IoT) devices are incorporating subscription-based services, such as advanced functionalities that are tied to ongoing payments. A similar example can be found in the automotive sector, where BMW offers a subscription service that provides users with access to features such as heated seats through a subscription.

## **5.3 Managerial Implications**

As the wearable fitness market shifts from ownership-based to subscription-based pricing models, and with significant growth projected for this product category, it is critical for managers to understand how pricing models influence price value perceptions and, consequently, consumer adoption behavior.

The results of this study suggest that the introduction of subscription-based pricing models has a negative impact on price value perceptions compared to ownership-based models. Therefore, managers who focus on maximizing consumer adoption intentions could gain a strategic advantage by maintaining ownership-based pricing models. However, pricing strategy decisions are rarely one-dimensional and often need to be aligned with broader organizational objectives. Subscription-based pricing offers several benefits, such as predictable revenue streams and improved customer retention, despite its potential drawbacks in terms of consumer adoption intentions. Given the moderate effect size of the negative impact observed in this research, many companies may find that the operational and financial benefits of subscription-based models outweigh the challenges identified.

To further mitigate the negative impact of subscription-based pricing models on price value, companies should implement measures to increase customer trust and flexibility to compensate for the feeling of potentially overpaying for subscriptions. By offering flexible cancellation policies, pause options and customizable payment intervals, companies can reduce the psychological burden associated with recurring payments. These measures not only give consumers greater control over their payment schedules, but also promote a sense of reliability and transparency, reducing concerns about long-term financial commitment.

Another key finding from this research is that subscription-based pricing models were rated more negatively only when consumers were explicitly primed to consider the potential for higher total costs. This highlights the critical role of framing and messaging. Marketers should emphasize the benefits of subscription pricing, such as lower initial investment and smaller, more manageable recurring payments, to counter concerns about cumulative costs. This approach can shift consumer focus to the affordability and accessibility of subscriptions, rather than their potential drawbacks.

Furthermore, when using subscription-based pricing, marketers are well advised to focus the narrative on the benefits of the product rather than its pricing structure. Highlighting their technology, services or superior performance can help distract attention from total cost considerations and increase the overall value perception of the offering. By doing so, companies can potentially strengthen consumer perceptions and drive adoption, even in the context of subscription-based pricing.

#### **5.4 Limitations and Suggestions for Further Research**

While this study provides valuable insights into consumers' price value perceptions according to different pricing models within the wearable fitness device market, several limitations must be acknowledged. This chapter discusses these limitations, their impact on the findings, and potential avenues for future research.

As noted in the sample characterization, the sample for this study included an overrepresentation of younger, lower income individuals. Given the focus on the premium segment of wearable fitness devices, it is possible that respondents' financial status may have influenced their perceptions, making prices appear less affordable and potentially biasing the results. Future research should try to validate these findings using a more representative sample, particularly with greater diversity in terms of age and income.

Furthermore, the priming techniques used to isolate the three dimensions of subscription-based pricing models were not independently validated, leaving the effectiveness of priming

uncertain. This raises the question of whether the context provided was sufficient for respondents to accurately evaluate the pricing options. Future research should therefore focus on refining and validating the priming methodology to ensure a more effective isolation of the factors influencing price value perceptions, thereby increasing the reliability of the findings.

This study specifically addressed cost perceptions by holding the benefit dimension of value constant, assuming identical product features and capabilities across pricing models. While this approach helped to isolate cost-related effects, it may have oversimplified the complex relation between perceived costs and benefits. Future research should explore the interactions between pricing models and other influencing factors, such as product features, measurement accuracy, brand reputation and perceived quality, to provide a more holistic understanding of price value perceptions.

Exploring the interactions between pricing models and demographic factors such as age, income or familiarity with technological devices, as well as understanding the role of trust in subscription models and the impact of transparency measures on consumer adoption intentions, could further enhance the understanding of subscription models.

Finally, this study focused exclusively on the German market for wearable fitness devices. However, geographical differences in the perception of different pricing models may exist due to economic and cultural factors. In particular, income levels, price sensitivity and the spread of subscription-based pricing models are expected to lead to differences in price value perceptions between countries. Future research should investigate whether the findings of this study hold across different countries and explore their relevance to other product categories undergoing a similar shift from ownership to subscription-based pricing models.

## Chapter 6: Conclusion

The purpose of this study was to assess whether the introduction of subscription-based pricing models, compared to ownership-based pricing models, affects perceived price value in the wearable fitness device market. As price value is known to be a critical determinant of consumer adoption intentions according to the UTAUT2 framework, these findings could provide insight into the impact on overall consumer adoption intentions. Given the notable shift the wearable device industry is experiencing towards subscription-based pricing models, this research aimed to provide timely insights into how these evolving pricing strategies are impacting consumer evaluations.

To achieve this, an online survey was conducted focusing on three key dimensions that differentiate ownership-based and subscription-based pricing models: the amplitude of the initial investment, periodic pricing, and the potentially higher total cost of subscriptions over time. Respondents were divided into three groups, each of which received specific priming on one of these dimensions before being asked to evaluate the perceived price value of the pricing models presented.

The study hypothesized that a lower amplitude of initial investment would enhance price value perceptions (H1), whereas periodic pricing (H2) and the potential for higher cumulative costs of subscriptions (H3) would negatively influence price value perceptions.

The analysis of H1 and H2 did not yield significant results, leading to the conclusion that in the market for wearable fitness devices and when consumers directly compare ownership-based and subscription-based pricing models, price value perceptions are not influenced by the amplitude of the initial investment or periodic pricing. These findings challenge previous literature suggesting that the lower financial barrier to entry associated with subscription models would increase price value perceptions. Similarly, the results diverge from the existing literature on periodic pricing. While previous studies suggested that periodic pricing could significantly influence cost perceptions, either positively or negatively depending on the context and price points, this study found no significant effect. This suggests that in the specific context of wearable fitness devices, periodic pricing may not carry the same weight in shaping price value perceptions as it does in other markets.

In contrast, significant differences in price value perceptions ( $p < .001$ ) were observed in the group primed to consider the potentially higher cumulative cost of subscriptions over time. Respondents in this group reported lower value perceptions for subscription-based pricing models compared to ownership-based pricing models. Based on these findings, it was

concluded that ownership-based pricing models may offer a strategic advantage when focusing on consumer adoption. However, it was acknowledged that due to the diversity of business objectives and the only moderate effect size identified ( $\eta^2 = .134$ ), it may be that in some cases the implementation of subscription-based pricing models could still be a viable strategy as the associated benefits such as steady revenue streams and improved customer retention could outweigh the perceptual challenges. In these cases, managers are advised to ensure that measures are in place to mitigate the negative effect on adoption intention.

However, there are certain limitations to the findings, including the over representation of younger and lower income respondents, which limits the generalization of the results. Future research should therefore focus on validating the findings with a more representative and diverse sample. In addition, the effectiveness of the priming techniques used to isolate the dimensions of subscription-based pricing models remains uncertain. Future research should therefore also aim to refine these priming methods to better capture the dimensions of subscription-based pricing models.

In conclusion, this study lays the foundation for further exploration of the evolving relationship between pricing models and consumer adoption behavior. Despite the perceptual challenges faced by subscription models in the wearable fitness market, their potential is vast, especially if drawbacks are mitigated and pricing strategies are designed to meet consumer needs.

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## Appendix

### Appendix 1: Price Benchmark of Wearable Fitness Devices in Germany

	<b>Brand</b>	<b>Product Name</b>	<b>Initial Expenditure</b>	<b>Monthly subscription price</b>
<b>Subscription-based pricing models</b>	Whoop	Whoop 4.0	0.00 €	30.00 €
	Oura	Oura Ring 4	399.00 €	5.99 €
<b>Ownership-based pricing models</b>	Apple	Apple Watch Ultra (2. Generation)	899.00 €	0.00 €
	Samsung	Galaxy Watch Ultra	699.00 €	0.00 €
	Google/ Fitbit	Google Pixel Watch 3	399.00 €	0.00 €
	Garmin	Fenix E8 Series	799.00€	0.00 €
	Xiaomi	Xiaomi Watch S1	229.00€	0.00 €
	Huawei	Huawei Watch Ultimate	899.00€	0.00 €
	Polar	Polar Grit X2 Pro Titan	869.00€	0.00 €

## Appendix 2: Questionnaire Stimuli

Please carefully review the three different pricing options for the following **wearable fitness device**. Imagine this device as a **premium product with superior measuring abilities**. Some of its features are Heart Rate Monitoring, GPS, Calorie Tracking, Sleep Tracking, Activity Tracking, Blood Oxygen & ECG Monitoring.

**Most premium wearable fitness devices are priced between 600-800 €.**



### **Price Option 1**

Initial Expenditure: **680 €**

Monthly Subscription Price: **0 €**

### **Price Option 2**

Initial Expenditure: **0 €**

Monthly Subscription Price: **30 €**

### **Price Option 3**

Initial Expenditure: **400 €**

Monthly Subscription Price: **6 €**

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### **PRIMING GROUP 1:**

As you answer the following questions, keep in mind that **option 1** involves a **more significant initial expenditure** while the initial expenditure for **options 2 and 3** are **less significant**, but require recurring monthly payments after that.

Consider how this **difference of the initial expenditure** at the moment of purchase might affect your perception.

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### **PRIMING GROUP 2:**

As you answer the following questions, keep in mind that **option 1** involves a **single upfront payment**, while **options 2 and 3** require **recurring monthly payments**.

Consider how this **difference of payment structure** and explicitly how the **monthly payments** might affect your perception.

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### **PRIMING GROUP 3:**

As you answer the following questions, keep in mind that **options 2 and 3** require monthly payments, which potentially result in a **higher total cost** compared to the fixed price of option 1 if used over an **extended time period**.

Consider how this **potential for higher cost** might impact your perception.

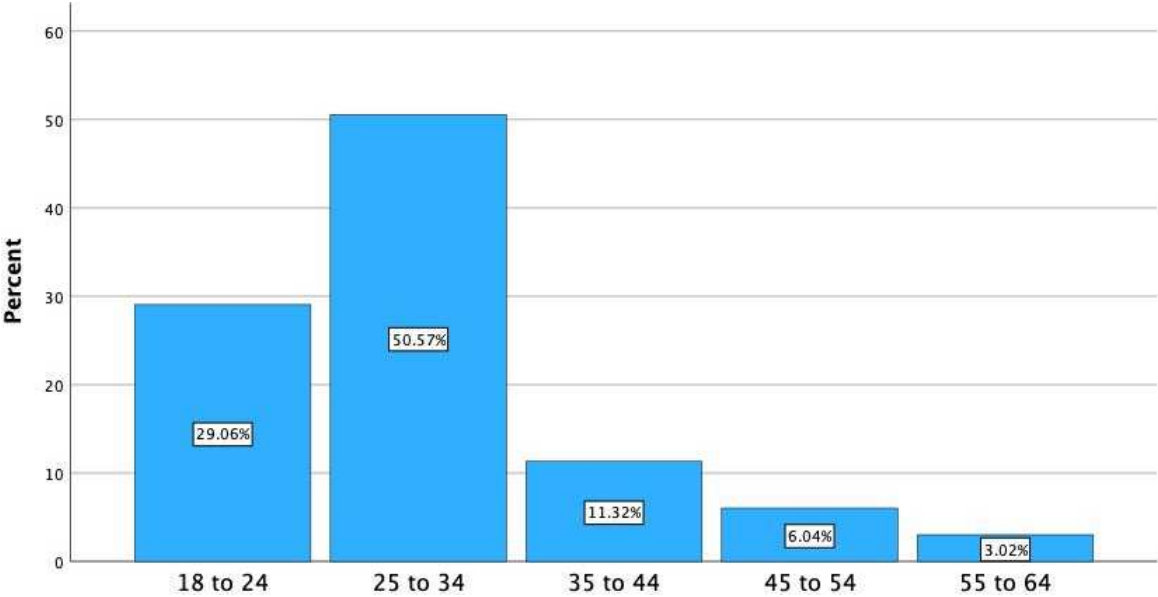
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Please note: You will be able to move on to the next question after 30 seconds.

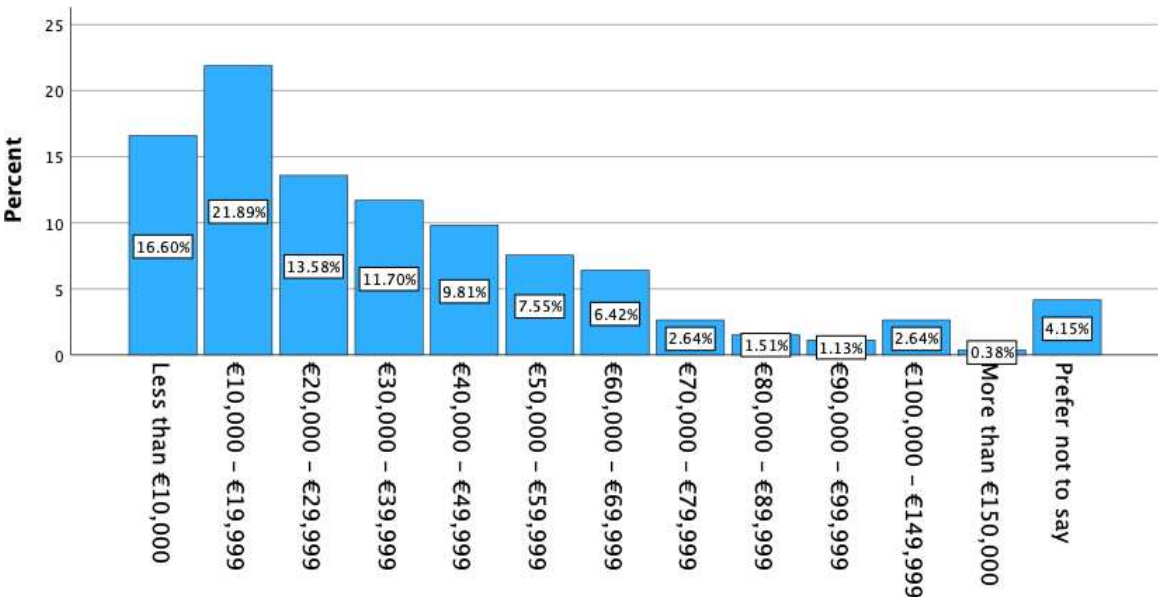
**Appendix 3: Sample Characterization Gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	152	57.4	57.4	57.4
	Female	108	40.8	40.8	98.1
	Other:	3	1.1	1.1	99.2
	Prefer not to say	2	.8	.8	100.0
	Total	265	100.0	100.0	

**Appendix 4: Sample Characterization Age**



**Appendix 5: Sample Characterization Income**



**Appendix 6: Item-Total Statistics**

	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Squared Multiple Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
<b>price option 1 is reasonably priced.</b>	8.31	8.955	.896	.803	.932
<b>price option 1 is good value for money.</b>	8.43	9.633	.904	.817	.925
<b>Price option 1 provides a good value at the current price.</b>	8.39	9.694	.897	.805	.930
<b>price option 2 is reasonably priced.</b>	7.71	11.616	.886	.786	.936
<b>price option 2 is good value for money.</b>	7.71	11.580	.906	.822	.920
<b>price option 2 provides a good value at the current price.</b>	7.66	11.588	.897	.807	.928
<b>price option 3 is reasonably priced.</b>	7.72	9.022	.907	.825	.943
<b>price option 3 is good value for money.</b>	7.78	9.079	.923	.852	.931
<b>price option 3 provides a good value at the current price.</b>	7.77	9.278	.907	.825	.943