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The Influence of Product Quality, Price, and Innovation on Customer Loyalty: A Study of Casio Watches Purchased Online in Cimahi City

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ABSTRACT

The research was conducted with the aim of analyzing the influence of performance, durability, perceived quality, price and product innovation on online customer loyalty of Casio watch products in Cimahi City. The research instrument has gone through the validity and reliability testing stages, classical assumption testing and multiple regression testing. This instrument was used as a data collection tool from respondents aged at least 17-40 years who had purchased Casio watches, which were the objects assessed in this research, but only those purchased online. The number of respondents in this study was 120 people. The analytical tool used to test the data instrument is SPSS version 29 software. The novelty in this research is the object and its locus. The limitation of this research is that only 3 of the 8 dimensions of product quality are taken, namely performance, durability, perceived quality and the locus is only in the city of Cimahi, perhaps in other cities the results will be different. The findings of this research explain that performance, durability, perceived quality do not have a positive effect on customer loyalty. However, price and perceived quality have a positive effect on customer loyalty. Meanwhile, the number of samples, sampling techniques and data analysis techniques can be adjusted to the objects assessed by previous researchers. It is also hoped that the results of this research will be useful for managers of objects being assessed regarding the design of relevant strategies or programs. Of the six hypotheses, only two are accepted: price and product innovation have a positive influence on customer loyalty.

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Keywords: performance; durability; perceived quality; price; product innovation; customer loyalty.

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1. INTRODUCTION

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Developments in this day and age, technology can change the environment. An environment that makes everyone need technological tools that help make it easier for them to carry out all their daily activities. Technology can be interpreted as equipment that can make someone do all activities more easily. For this reason, in today's development, technology can change a thought with consumer behavior patterns. One of the technologies currently needed in people's lives is watches [1]. Nowadays everything is dynamic, today's society, especially young people (Gen Z) who always follow the current lifestyle or also known as lifestyle, one of which is a watch [2]. At this time, watches are not only used as a necessity, but also used as fashion that can reflect the characteristics of a person in social status [3].

29 Sales are business activities that are carried out with the aim of making a profit
 30 maintain a business. E-Commerce as a digital-based sales medium encourages consumers
 31 to shop and makes it easier for sellers to market their products. Online sales media utilizes
 32 the Internet to introduce, offer, sell and buy products. Online selling media accelerates
 33 processing time and can reduce the risk of human error so that in its operational activities,
 34 sales can be carried out effectively and efficiently [4]. It also makes it easier for consumers to
 35 shop without having to come directly to the store [5]. The role of social media in today's age
 36 of globalization is very important in improving business performance. Social media is very
 37 influential in small that can change the interaction between buyers and consumers, as well as
 38 the way to market products or services easily, effectively and efficiently to customers aimed
 39 at increasing profits and productivity [6].

40 The central statistical body (BPS) assembles the clock and the watch or the watch
 41 and its components. Over the past six years, imports have been much higher than exports.
 42 The latest data in July 2023 showed that the export weight of the watch reached 17 thousand
 43 kilograms (kg). The value reached US\$1.43 million or Rs22.6 billion (assuming the exchange
 44 rate of US\$15.703 per US\$). While the import weight reached 1.13 million kg. The value is
 45 much larger, US\$28.6 million or US\$449.17 billion. The July 2023 import trend is actually
 46 counting pretty big. New access this half-year beat imports throughout 2022. Last year,
 47 imports weighed only 897 thousand kilograms, but exports were much larger, 35 thousand kg
 48 [7].

49 Indonesian watches have a wide variety of brands ranging from local factory produced
 50 watches as well as directly imported from abroad starting from Casio, G-Shock, Swiss Army,
 51 Expedition, Alexandre Christie and others [8]. Each of these products of course has some
 52 advantages and disadvantages that can make customers want to buy the product, ranging
 53 from quality, price and product innovation [3]. Casio is a watch brand from Shibuya City, Tokyo,
 54 Japan founded in 1946 and in 1957 released the world's first calculator [9]. According to data
 55 taken from the top brand index for the watch category, it can be seen that Casio watches saw
 56 a 1.1% decline in sales in the period 2022-2023. Data from its Top Brand Index are as follows:
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58 Table 1.1 *Top Brand Index Watches Category*

| Brand | TBI 2019 | TBI 2020 | TBI 2021 | TBI 2022 | TBI 2023 |
|------------|----------|----------|----------|----------|----------|
| G-Shock | 27.70 | 28.50 | 22.10 | 24.70 | 26.00 |
| Casio | 23.00 | 22.70 | 18.50 | 20.00 | 18.90 |
| Alba | 7.50 | 8.40 | 10.30 | 9.70 | 9.70 |
| Swatch | 6.50 | 7.50 | 6.40 | 6.80 | 5.40 |
| Swiss Army | 6.10 | 6.50 | 6.10 | 6.30 | 7.00 |

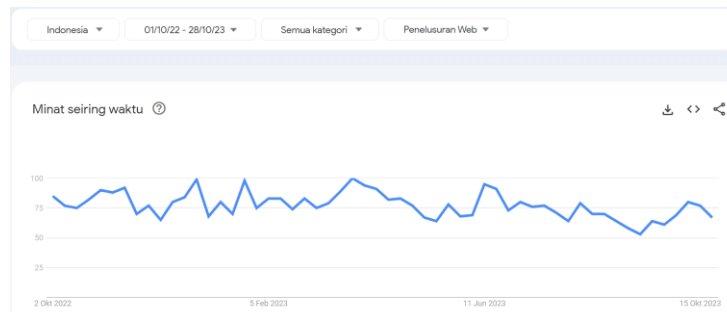
Source : *Top Brand Index (2023)*

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 61 Seeing on the basis of the measurement of the Top Brand Index there are 3 indicators,
 62 where the problems present in this study include in the commitment share which can be
 63 understood that the power of the brand in encouraging consumers to re-buy in the future. Then
 64 next to measure 3 parameters of the top brand index there is a problem of this research
 65 included into the future intention that indicates the intention of the consumer to buy again to
 66 use/consume again in the coming time.

67 In addition to the above data sources, there are data from Google Trends (2023) also
 68 indicate a decline in purchasing interest in Casio brand watch products. It can be seen that in
 69 October 2022 Casio experienced a fairly good improvement that reaches at the figure 100,
 70 but at the end of October 2023 Casio watches experienced a decrease to the figure 67% can
 71 be viewed through the Google Trend chart below:
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Images 1.1 Data *Google Trends* Casio Category



Source : Google Trends (2023)

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Based on data from top brand index and Google Trends above, can indicate there is a problem that there has been a decline in customer loyalty to Casio brand watch products up to the period of October 28, 2023.

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Based on the results of partial analysis it is known that product quality has a positive influence on customer loyalty [1]. The influence of product quality variables on customer loyalty is Marck's powder [10]. For previous research also stated that product quality has a positive influence on customer loyalty of glass tea beverage products [11]. [12] also stated that customer loyalty is influenced by product quality. Dimensions of product quality i.e. performance and durability have a positive impact on customer loyalty in Decranesda Batam [13]. With reference to the findings above that the better product quality the better customer loyalty.

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The result of the analysis is known that price affects customer loyalty because the product quality corresponds to the price offered [1]. Previous research also stated that the price has a positive influence on the customer loyalty of the Honda Scoopy motorcycle in the city of Rantauprapat [14]. By reference to the results of such findings can be explained that if the price offered corresponds to the product quality received by the customer, the more loyal the customer.

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The results of the analysis show that there is a significant influence between product innovation on customer loyalty [15]. The findings are also supported by the findings of [16] which stated that there are positive and significant influences between product innovations of the brand Toyota Calya in Bogor district and Bekasi on client loyalty. Other research results show that product innovation has a positive and significant impact on customer loyalty Go-jek [17]. Thus, the higher the product innovation, the higher the customer loyalty.

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The selection of Casio watch products in Cimahi City as an object to be evaluated in the research is what distinguishes from previous research that great hope can contribute to the development of marketing science of watch products. This research has some limitations of resources, such as time, mind and effort that can affect the ability to gather accurate data or interpretation of the results of the research and the selection of dimensions of product quality that are only three: performance, durability and perceived quality and also restrictions only purchase through online only. The research is also intended to test product quality, price, and product innovation against customer loyalty products Casio watches. Thus, the study is titled the influence of performance, durability, perceived quality, prices, and products innovation on customer loyalty of Casio brand watches purchased online in the city of Cimahi.

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2. MATERIAL AND METHODS / EXPERIMENTAL DETAILS / METHODOLOGY

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2.1. Product quality

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Product quality is something that needs to get special attention from the company or producer, given product quality has a pretty close relationship with the problem of customer satisfaction,

117 which is the purpose of the marketing activities carried out by a company [18]. According to
118 [19], there are eight dimensions of product quality consisting of performance, features,
119 reliability, compliance with specifications, durability, serviceability, aesthetic, perceived quality.
120 the definition of product quality is the ability of a product to perform its function. The
121 function intended here is overall durability, reliability, accuracy, ease of use and product
122 repair. [20]

123 2.1.1 Performance

124 Performance is the operating characteristic of the core product purchased, the performance
125 of a product that benefits consumers so that consumers can benefit from the product used in
126 the past for product quality indicators on performance dimensions. Performance is a basic
127 operating characteristic of a product and is also a measure of the functional aspects of the
128 product, functionality is meant that the product can perform tasks accurately and consistently.
129 [21].

130 2.1.2 Durability

131 Durability is the ability of the product to perform its functions well. Durability is measured by
132 how long the product can be used and can be interpreted as a measure of the expected
133 operating age of the products in normal conditions. A long-lasting product can result in cost-
134 effectiveness in the long term. This is because when a product lasts longer it will require less
135 repair or replacement costs. [21]

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137 2.1.3 Perceived quality

138 is the customer's perception of the overall quality or superiority of a product or service
139 compared to an alternative objective that has been established and can be measured by high
140 quality, superior product and very good quality [19]. Perceived quality is how a company meets
141 needs and requirements, as well as on timeliness to meet customer expectations. This
142 perceived quality applies to all types of services provided by the company when consumers
143 shop or are at the company. [20]

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145 2.2. Price

146 Price is all forms of financial costs that are sacrificed by a customer to own, acquire,
147 and use a number of combinations of products and services of a commodity [1]. Price is one
148 of the important components of a product, because it will influence the decision to buy a
149 product [22]. According to [23] there are four indicators that characterize price: price
150 affordability, price conformity with product quality, price compatibility with benefits and price
151 according to price ability or competitiveness. Price itself is a game in marketing, if the price
152 set by the seller is too high, the price cannot be reached by consumers, which will
153 ultimately have an impact on the sluggishness or decline in marketing of a product in
154 the company. Conversely, when the price set by the company is too low, it will have an
155 impact on the low level of profitability and consumers think that the goods offered at low
156 prices are old goods or goods of poor quality. [24]

157 2.3. Product innovation

158 Innovation is a breakthrough associated with a new product. Innovation can also be seen as
159 a manufacturer's mechanism to be able to adapt to a dynamic environment [1]. According to
160 [16] there are five indicators to measure product innovation different kinds of product, product
161 quality improvement is always done, product design is always improved, the availability of
162 spare parts and machine performance is very good. Product innovation is a new product
163 or service introduced to the market. Product innovation is categorized as a new product
164 for the world, a new product line, an addition to a new product line, an addition to a new existing
165 product line, an improvement, and revision of an existing product, a reassignment, and cost
166 reduction. [25]

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168 2.4 Customers loyalty

169 Customer loyalty is a consistently held commitment by a consumer to buy or advance

170 a product or service, which can lead to re-purchase of the same product, even if the consumer
171 gets a situational influence or marketing from a competitor to replace another product [1].
172 According to [26] loyalty is a strong loyalty to re-purchase a preferred product or service, even
173 if the circumstances and effects of future marketing efforts then cause customers to switch.
174 According to Tjiptono [19] explains that the customer loyalty indicator can be measured by
175 making re-purchase, recommending to other parties, not intending to move and talking about
176 positive things. Customer loyalty can also be defined as a solid and ongoing
177 commitment to regularly purchase preferred goods or services in the future, which
178 leads to repeated purchases of the same goods or services. In other words, customer
179 loyalty is like a guarantee of repeat purchases. It has, of course, provided
180 sustainable benefits for the business. [27]

181 2.5 Theoretical Frameworks and Hypotheses

182 According to previous research, customer loyalty is positively influenced by product
183 quality [1]. Supported by research by [10] and [13]. The above statement is used as a basis
184 for determining the first hypothesis as follows:

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186 H1: Performance has a positive and significant effect on customer loyalty

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188 The durability can be measured by how long the product can be used and can be
189 understood as a measure of the expected operating age of the product under normal
190 conditions, this dimension can be met by several indicators, namely the durability indicates
191 durability during the product is used, consistently shows how far a product can maintain its
192 quality from time to time and the ability to perform its functions include durability, reliability and
193 ease of operation [19].

194 Dimensions of product quality, namely durability, positively affect customer loyalty
195 [13]. Supported by research from [12] stated that durability affects customer loyalty at D'besto
196 Branch Caringin Bogor. The above statement is used as the basis for the determination of the
197 following hypothesis:

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199 H2: Durability has a positive and significant influence on customer loyalty

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201 Perceived quality is the customer's perception of the overall quality or superiority of a
202 product or service compared to an alternative purpose that has been established and can be
203 measured by high quality, superior product and very good quality [19].

204 Dimensions of product quality (perceived quality) positively affect customer loyalty in
205 smart phone users in Batam [28]. Supported by [29] says that there is a positive and significant
206 influence between perceived quality and customer loyalty.

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208 H3: Perceived quality has a positive and significant influence on customer loyalty

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210 Price is the amount of money sacrificed for a good or service and the value of the
211 consumer exchanged for the benefit of use over a product or service [1]. Price is everything
212 that has a fixed value for something, something that can be a physical product in various
213 stages of completion, with or without support services or without quality assurance and so on.
214 Research from [30] mentions price as any form of financial cost that a customer sacrifices to
215 acquire, own, use a number of combinations of goods and services of a product. According to
216 [23] there are four indicators that characterize prices: price affordability, price competitiveness,
217 price compatibility with product quality and price compatibilities with benefits.

218 Price partially has a positive influence on customer loyalty [31]. Results from [1] and
219 [29] research show that price has a positive influence on customer loyalty. The above
220 statement is used as the basis for determining the second hypothesis:

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222 H4: Price has a positive and significant influence on customer loyalty.

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Product innovation is something that is perceived by consumers as a new product or service. Innovation can simply be understood as a breakthrough linked to new products [1]. Innovation is also something newly created in the form of breakthroughs in a product or a service idea and a person's perception which can be new products, design changes, technical innovations, to new business thinking or a new process [32]. According to [33] successful innovation is simple and focused must be specifically targeted, clear, and have a design that can be applied, in the process innovation creates new customers and markets.

According to [34], there are three indicators of product innovation: product quality, product variation, style and product design.

The results of the analysis show that there is a significant influence between product innovation brand Toyota Calya in Bogor district and Bekasi on customer loyalty [16]. The findings are also supported by the findings of [15] and [17] stating that product innovation has a positive impact on customer loyalty.

H5: Product innovation has a positive and significant impact on customer loyalty

According to the results of the analysis, performance, durability, perceived quality, price and product innovation simultaneously have a significant and positive impact on client loyalty [1]. Research by [35] and [36] stated that performance, Durability, Perceived Quality, Price and Product Innovation have a positive impact and signals on customer loyalties. The above statement is used as the basis for determining the sixth hypothesis:

H6: Performance, durability, perceived quality, price, and product innovation simultaneously have a positive and significant influence on customer loyalty.

Based on the explanation that has been outlined about the influence of performance, durability, perceived quality, prices and product innovations on client loyalty, the conceptual model can be described as follows:

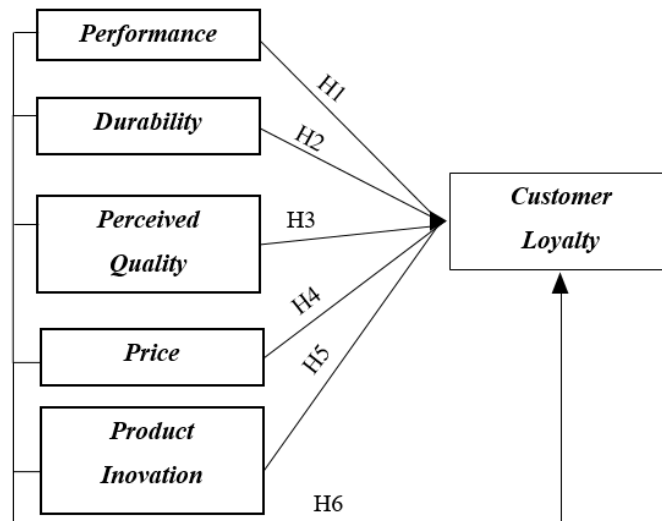


Fig. 1. Conceptual framework

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3. METHODOLOGY

3.1 Research, Objectives, Approaches, and strategies

258 The object of this research is a product Casio watches with consumer characteristics
259 17-40 years and a different location that is in Cimahi City. While the variables in this study are
260 performance, durability, perceived quality product innovation, price, and customer loyalty. In
261 addition to being classified as the object of the research, the user is also set as the judge in
262 this research because it is considered to have knowledge and ability in evaluating the quality
263 of Casio watches.

264 This research method is designed to test the hypothesis but there are seven steps to
265 follow: operationalization of variables, design of survey tools in questionnaire format, testing
266 the validity and reliability of research instruments, collecting data from respondents using valid
267 and reliable research tools, processing of data and conducting hypothetical testing. Next,
268 steps one and two will be submitted to the research proposal report as material to be
269 presented. The remainder of steps three to seven will be implemented after the report of
270 research proposals has been identified as can be used as a basis for making the research
271 suggestion. Each step of this research is described in detail in each sub-section of the
272 research method.

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274 **3.2 Characteristics of the Research Population**

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276 The study will involve a sample of a population of vulnerable respondents aged 17-40
277 who have used Casio watch products and have received information about Casio watches on
278 social media. The age criteria are determined on the assumption that they are sufficiently
279 cognitively competent to complete the statements contained in the questionnaire.

280 The number of samples in this study is set at 120 people can be said to be accurate
281 because the number has exceeded the minimum limit supported by [37].

282 The number of samples suggested by the experts is only 10 times the number of research
283 variables. In the study, the researchers applied a sample of 20 times the number of variables
284 consisting of performance, durability, perceived quality, price, product innovation and
285 customer loyalty.

286 According to [37], purposive sampling is a technique of limited sample-taking with a
287 specific purpose that can provide the required information. Someone was taken as a sample
288 because the researchers assumed that the person had the information necessary for his
289 research. While non-probability sampling means that every member of the population does not
290 have the same chance to be selected as a sample of respondents. Thus, questionnaires will
291 be distributed to all samples of research through the questionnaire indirectly using google
292 forms to make it easier for researchers to obtain them directly and quickly.

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294 **3.3 Data Processing and Analysis Methods**

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296 The research uses qualitative descriptive analysis techniques used to analyze data
297 by describing or describing the collected data as it is without generalizing the results of the
298 research using data conversion via the Likert scale. According to [38] that the Likert scale is
299 used to measure the attitudes, opinions and perceptions of a person or group about social
300 phenomena that are later called research variables. Using the Likerty scale, then, the variable
301 to be measured is described as a dimension, the dimension is describe as a sub variable, then
302 the sub variables are described again as measurable indicators that can be used as a
303 benchmark in creating research instrument items that are questions or statements to be
304 answered by respondents.

305 According to [37] data can be analyzed to test the hypothesis after the data is collected
306 from the sample research. In this research analysis is used to answer the identification of
307 research problems using a quantitative approach. After that, the researchers will test
308 performance, durability, perceived quality, price, and product innovation against customer
309 loyalty using double regression. Double regression is an analysis that uses more than one
310 independent variable to explain the variance of a dependent variable in a study [37]. This study

311 has six hypotheses where all the hypothesis uses double regression.
 312 The double regression equation is formulatively presented in the form of an equation
 313 as per [39] as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$$

316 Description:

317 X1 = Performance

318 X2 = Durability

319 X3 = Perceived Quality

320 X4 = Price

321 X5 = Product Innovation

322 a = Constant

323 b = Coefficient of variable improvement bound if there is an increase in one free
 324 variable
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326 4. RESULTS AND DISCUSSION

327 4.1 Respondent Profile

328 Table 1. Respondent profile

| INFORMATION | SUM | (%) |
|----------------------|-----|------|
| Age | | |
| 17-24 | 91 | 75,8 |
| 25-30 | 19 | 15,8 |
| 31-40 | 10 | 8,3 |
| Gender | | |
| Man | 67 | 55,8 |
| Woman | 53 | 44,2 |
| Location | | |
| Cimahi | 120 | 100% |
| Occupation | | |
| Student | 3 | 2,5 |
| College Student | 72 | 60 |
| Self-employed | 11 | 9,2 |
| employee | 25 | 20,8 |
| Government employees | 3 | 2,5 |
| Housewife | 2 | 1,7 |
| Teacher | 1 | 0,8 |
| Doesn't work | 1 | 0,8 |

| | | |
|---|-----|------|
| <i>Freelancer</i> | 1 | 0,8 |
| Dentist | 1 | 0,8 |
| Income | | |
| < Rp. 1.500.000 | 47 | 39,2 |
| Rp. 1.500.000 – 3.000.000 | 25 | 20,8 |
| Rp. 3.000.000 – 5.000.000 | 23 | 19,2 |
| > Rp. 5.000.000 | 25 | 20,8 |
| When was the last time you bought a Casio watch ? | | |
| Last 1 year | 61 | 50,8 |
| Last 2 year | 31 | 25,8 |
| Last 3 year | 9 | 7,5 |
| Last 4 year | 6 | 5 |
| Last 5 year | 13 | 10,8 |
| Before buying a Casio watch product, what you often look for information online about product this ? | | |
| Yes | 112 | 93,3 |
| No | 8 | 6,7 |
| Have you ever bought a casio watch online ? | | |
| Yes | 120 | 100 |
| If yes, what e-commerce did you choose ? | | |
| Shopee | 68 | 56,7 |
| Tokopedia | 29 | 24,2 |
| Lazada | 3 | 2,5 |
| Jamtangan.com | 17 | 14,2 |
| Blibli.com | 1 | 0,8 |
| Website | 2 | 1,6 |

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The study will involve a sample of a population of vulnerable respondents aged 17-40 who have used Casio watch products and have received information about Casio watches on social media. The age criteria are determined on the assumption that they are sufficiently cognitively competent to complete the statements contained in the questionnaire.

4.2 Validity and Reliability Test

Validity test in this study using the product moment correlation technique with the criterion if r statistic $>$ r table then the element of the statement is declared valid. It is known that r table product moment in this research is 0.2144. Here's the validity and reliability test results using spss version 29.

Table 2. Validity and reliability test

| NO | Statement | Validity test result | Reliability test result |
|--------------------|---|----------------------------------|--------------------------------|
| | | R statistic (Person correlation) | Cronbach's alpha |
| Performance | | | |
| 1. | Casio watches are able to perform the function of showing time well | 0,692 | 0,750 |
| 2. | Casio watches have provided complete features in accordance with the basic functions of the watch | 0,891 | |
| 3. | Casio watches have provided complete features in accordance with the basic functions of the watch | 0,884 | |
| Durability | | | |
| 1. | Casio watches can last for a long period of time | 0,779 | 0,766 (reliabilitas tinggi) |
| 2. | Casio watches are consistent in maintaining their quality | 0,813 | |
| 3. | The raw material of the casio watch can last a long time | 0,783 | |

| | | | |
|--------------------------|--|-------|-------|
| 4. | Casio's watch is easy to operate through its buttons | 0,749 | |
| Perceived quality | | | |
| 1. | I saw that Casio's watch was of high quality. | 0,764 | 0,561 |
| 2. | I think Casio watches are superior to other brands. | 0,865 | |
| 3. | I'm looking at the raw materials made by Casio watches having excellent quality. | 0,547 | |
| Price | | | |
| 1. | I think Casio watches have an affordable price | 0,530 | 0,725 |
| 2. | I think the price of Casio watches can compete with other brands | 0,818 | |
| 3. | In my opinion, the price of Casio watches corresponds to the quality of the product. | 0,776 | |
| 4. | In my opinion, the price of Casio's watches is in line with its benefits. | 0,818 | |
| Product inovation | | | |
| 1. | To improve the quality of the Casio watches | 0,714 | 0,646 |

| | | | |
|-------------------------|--|-------|-------|
| | provides an innovation in stopwatch features | | |
| 2. | Casio watches provide innovation in adding product variations in terms of models | 0,781 | |
| 3. | Casio's watches provide an innovation tailored to his personality. | 0,671 | |
| 4. | Casio watches give an innovation that in terms of attractive watch design | 0,631 | |
| Customer loyalty | | | |
| 1. | I'd like to re-purchase Casio watches. | 0,750 | |
| 2. | I'd like to recommend Casio's watches to someone else. | 0,888 | 0,711 |
| 3. | I prefer not to move to any other brand than Casio watches | 0,756 | |

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The validity test results indicate that all questions on the questionnaire are valid because the ratio of each statement in the question is larger than the rtable of 0.2144. In other words, the instrument used to gather data on this study can measure what should be measured. Furthermore, the results of the reliability test above, known values of cronbach's alpha are declared reliable because the value is greater than 0.5 based on the idea put forward by [40] so that it can guarantee consistent measurements if done over different times, the result remains the same.

4.3 Classical Assumptions Test

The classic assumption test consists of the normality test, the multicholenierity test and the same heteroskedasticity test described as follows.

Table 3. Classical assumption test results

| NO | Classic type of assumption | Test result acceptance criteria | Test result | Interpretation |
|----|--|---|--|--|
| 1. | Normality test <i>(Kolmogorov smirnov)</i> | (Sig) > 0,05 | (sig) = 0,063 | Data is normally distributed |
| 2. | Multicholnearity test | <i>Tolerance value > 0,1 and VIF < 10</i> | <i>Tolerance value = 0,991 and VIF = 1,009</i> <i>Tolerance value = 0,859 and VIF = 1,164</i> <i>Tolerance value = 0,920 and VIF = 1,087</i> <i>Tolerance value = 0,828 and VIF = 1,207</i> <i>Tolerance value = 0,991 and VIF = 1,009</i> | There is no correlation between independent variables |
| 3. | Heteroskedasticity test | (sig) > 0,05 | (sig) = 0,888 (sig) = 0, 897 (sig) = 0,093 (sig) = 0,152 (sig) = 0,065 | There is no equality of variance from the residuals of the regression model or heteroscedasticity does not occur |

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Based on the results of the classical assumption test in table 4.3, it is known that in the normality test, the value of significance (sig) = 0.063 > 0.05 which means that the data is normally distributed. Then the results of the multicollinearity test show that each independent

366 variable has a tolerance value of > 0.10 and VIF < 10. Where this shows that the model is free
 367 from multicollinearity or there is no correlation between independent variables. Furthermore,
 368 the results of the heteroscedasticity test show that each variable has a signification value (sig)
 369 of > 0.05 which means that the regression model is limited to heteroscedasticity or there is
 370 none Independent variables that affect the absolute residual value.

371 4.4 Multiple regression test

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 373 The multiple regression test aims to analyze the direct impact of the variables
 374 performance, durability, perceived quality, price and product innovation on customer loyalty.
 375

376 **Table 4. Multiple regression test results**

| Model | Unstandardized Coefficients | | Standardized Coefficients | T Value | Sig |
|--------------------|-----------------------------|-----------|---------------------------|---------|---------|
| | B | Std.error | Beta | | |
| 1 (constant) | 7.791 | 2.088 | | 3.731 | < 0.001 |
| Performance | 0.016 | 0.060 | 0.025 | 0.272 | 0.786 |
| Durability | -0.019 | 0.069 | -0.026 | -0.273 | 0.785 |
| Perceived quality | -0.088 | 0.083 | -0.099 | -1.057 | 0.293 |
| Price | 0.162 | 0.079 | 0.204 | 2.062 | 0.041 |
| Product innovation | 0.162 | 0.079 | 0.185 | 2.052 | 0.042 |

377
 378 On the basis of table 4. can be obtained the double regression equation as follows:
 379

$$380 Y = 7,791 + 0,016 X1 + (-0,019) X2 + (-0.088) X3 + 0,162 X4 + 0,160 X5$$

381
 382 Referring to the results of the double analysis is known that each thit of the
 383 performance variable is 0,272, durability is -0,273, perceived quality is -1,057, price is 2,062,
 384 product innovation is 2,052. Whereas the value of the β performance coefficient is 0,025,
 385 durability -0,026, perceived quality -0,099, price -0,204, product innovation -0,185. This means
 386 that performance, durability, perceived quality variables have no positive and significant
 387 impact on customer loyalty because the T statistic value is smaller than the table of 1,65833.
 388

389 4.5 Hypothesis test result

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 391 In the table below are displayed the results of the hypothesis test of the 6 available
 392 hypotheses. Therefore, the results of the hypothesis test are as follows:
 393

Table 5. hypothesis test result

| Hypothesis | Relationship between variables | T statistic | Sig | Interpretation of hypothesis test results | |
|------------|---|-------------|-------|---|--|
| H1 | <i>Performance → customer loyalty</i> | 0.272 | 0.786 | Ha rejected | Working hypotheses are not supported by empirical data |
| H2 | <i>Durability → customer loyalty</i> | -0.273 | 0.785 | Ha rejected | Working hypotheses are not supported by empirical data |
| H3 | <i>Perceived quality → customer loyalty</i> | -1.057 | 0.293 | Ha rejected | Working hypotheses are not supported by empirical data |
| H4 | <i>Price → customer loyalty</i> | 2.062 | 0.041 | Ha accepted | Working hypotheses are supported by empirical data |

| | | | | | |
|----|---|-------|-------|-------------|--|
| H5 | <i>Product innovation → customer loyalty</i> | 2.052 | 0.042 | Ha accepted | Working hypotheses are supported by empirical data |
| H6 | <i>Performance, durability, perceived quality, price, product innovation → customer loyalty</i> | 1.985 | 0.086 | Ha rejected | Working hypotheses are not supported by empirical data |

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- Remarks :
1. Rejection criteria H0 if T statistic > table
 2. t table (multiple regression of 1.6833)
 3. f table (multiple regression of 2.29)

400
401

4.6 Discussion

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Based on the results of the first test hypothesis showing Ha rejected, it shows that performance has no positive and significant influence on customer loyalty. The results of this study are inconsistent with the study conducted by [1] which stated that performance positively and significantly affects customer loyalty smartphone VIVO and supported by the research by [10], which states that performance is positive and signifying to Mark's client loyalty bedak.

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The results of this study are not consistent with what [13] did, which Furthermore, the second hypothesis suggests Ha was rejected. This proves that durability does not have a positive and significant effect on customer loyalty. The results of this study are not in line with those conducted by [13] which states that durability has a positive and significant effect on customer loyalty. Furthermore, the results of this study are also not in line with other studies that state that durability has a positive and significant effect on customer loyalty [12].

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414
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Later, a third hypothesis showed Ha was rejected. This can be interpreted that perceived quality does not have a positive and significant effect on customer loyalty. The results of this study are not in line with research conducted by [28] and [29] with the results of the study, namely perceived quality has a positive and significant effect on customer loyalty.

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Furthermore, the fourth hypothesis displays successfully accepting Ha. This shows that price has a positive and significant effect on customer loyalty. This is in line with research conducted by [31] which states that price has a positive and significant effect on customer loyalty. Furthermore, the results of other studies also state that price has a positive influence on customer loyalty [26].

422
423

Next, it is known that the fifth hypothesis shows Ha is accepted. This illustrates that product innovation has a positive and significant effect on customer loyalty. This finding is

424 supported by [16] stating that product innovation has a positive and significant effect on
425 customer loyalty. Therefore, the results of this study reinforce previous findings in the same
426 context, namely the research conducted [1].

427 The last hypothesis, the sixth one, states that H_a is rejected. This shows that
428 performance, durability, perceived quality, price and product innovation simultaneously do not
429 have a positive and significant effect on customer loyalty. The results of this study are not in
430 line with research conducted by [1] and [36] which states that performance, durability,
431 perceived quality, price and product innovation simultaneously have a positive and significant
432 effect.

433

434

435 **5. CONCLUSION**

436

437 The essence of this study can be explained based on the results and discussion that
438 has been described in the previous chapter, therefore this study has several conclusions,
439 namely as follows:

440 1. Performance has no positive and significant impact on customer loyalty Casio brand
441 watches online in Cimahi city

442 2. Durability has no negative and significant influence on customer loyalties Casio brands
443 watch online in cimahi town

444 3. Perceived quality does not have a positive and meaningful impact on customers loyalty
445 casio brand Watches Online in Cimahi city

446 4. Price has a positive influence and significant effect on customers loyalties Casio Brand
447 watches on Cimahi city

448 5. Product innovation has a significant and positive impact on customers loyalty of Casio
449 brands watch online in the city of Cimahi

450 6. Performance, durability, perceived quality, price and product innovation simultaneously
451 have no positive effect and significant significance on customers loyalty.

452

453 **6. SUGGESTION**

454

455 Referring to the findings of this study conveyed in several suggestions that can
456 provide benefits for Casio brand watch companies online in the city of Cimahi, the following
457 explanation:

458

459 **6.1 Scientific Implication**

460

461 Scientific implications This study has differences with previous researchers, namely
462 in the selection of dimensions of product quality which are only three, namely performance,
463 durability and perceived quality, consumer characteristics and different loci. This study also
464 has limitations in terms of age range of only 17-40 years and who are only domiciled in the
465 city of Cimahi with a sample of 120 respondents. It is recommended for further researchers,
466 increasing the age range of respondents with a wider scope such as people who have bought
467 Casio brand watches online throughout West Java. Furthermore, from determining the
468 selection of dimensions of product quality, researchers are expected to be able to add more
469 variables that are not studied in this study and do what has an influence on customer loyalty.

470

471 **6.2 Managerial Implication**

472

473 The advice addressed to the casio company is that the results of this research can be
474 used as a basis for decision-making related to how the company increases customer loyalty.
475 based on the results of this research, that price and product innovation influence customer

476 loyalty of casio watch online in the city of cimahi. casio needs to consider raising price and
477 product innovations that will drive increased customer loyalty. casio can increase the price by
478 offering affordable watch prices, competing with other brands, able to adjust the price to the
479 quality of its products, and which corresponds to its benefits. then, casio company can
480 enhance product innovation by adding stopwatch features in the watch, adding variation of
481 watch models, creating attractive watch designs and watches that can adjust to the personality
482 of each of its customers.
483

484 **COMPETING INTERESTS**

485
486 That's no competing
487

488 **REFERENCES**

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