The willingness to pay on Indonesian branded Muslim clothes using structural equation modelling

Yunia Dwie Nurcahyanie\*, Rusdiyantoro, Denka Pundita Patriadi, Titik Koesdijati

Department of Industrial Engineering, Universitas PGRI Adi Buana Surabaya

Jl. Dukuh Menanggal XII no 4, Surabaya

\*E-mail : yuniadwie@unipasby.ac.id

**Abstract**. The need for fashion products is never-ending. Consumers' willingness to buy fashion products depends on quality, design trends, brand, and price. This study wants to find what parameters have a significant effect on the willingness to buy a product. The objects studied were Muslim clothing products with the DP and HU brands. This study uses the structural equation modelling method, with 50 adult Muslim women as respondents. All respondents were regular customers at the two Muslim clothing brand counters DP and HU. The results showed that product quality did not have a significant effect on purchase intention. The design trend is proven to have a significant effect on willingness to pay. Interestingly, the brand and price do not significantly affect purchase intention, even though this study's respondents were regular customers of the two brands' case study. For buyers, the design model is the main parameter in choosing a product.

1. Introduction

The need for fashion products has become one primary human need. Fashion is defined as an appearance that is recognized and categorized as low obviousness, high impulse buying, shorter life cycle, and high instability of market demand. Therefore, to be moneymaking in the industry, fashion is essential to take the 'speediness to market' tactic on fashion trends that differ from competitors [1]. Consumers choose fashion based on quality, design trends, brands, and prices [2][3]. The development of the design product needs to recognize consumer's voices, so it is important for designers to consider the voice of customers [4]. Muslim fashion business in Indonesia is quite promising. Fashion business development can come from the sales data, which always increases from year to year. However, the competition for the Muslim fashion industry in Indonesia is very tight. Trend factors, innovation, and creativity need considering in the development of Muslim fashion products [5][6]. Furthermore, for the fashion industry, parameters are needed that significantly influence consumer decisions to buy their products in order to survive in the market [7][8][9].

This study aims to find out what are the parameters will significantly impact the willingness to buy Muslim fashion products. This study was involving two well-known Muslim clothing brands, namely DP and HU. We hide these two brands to maintain the neutrality of the research. The pattern of selling Muslim clothes, which has begun to shift from offline sales to online sales, has quite an impact on today's consumer buying styles [10][11]. Moreover, the proliferation of e-commerce-based Muslim clothing sales also impacts offline sales [11]. Fashion manufacturers' decisions must be fast and precise, considering that fashion products are types of products that have a short life span or are quickly obsolete due to exhausting trends or consumer boredom [12][13]. Fashion products usually identical to brands. With well-known brands, the selling price will be more expensive [14].

Is it true that brand parameters still the standard for buying decisions? Other parameters such as quality, trend, or price on which consumers buy fashion products in Indonesia are still important? This study is only limited to the necessary parameters: brand, price, quality, and trend. Meanwhile, additional parameters for online sales, such as delivery speed, packaging quality, and product suitability with images in e-commerce [15], are not discussed in this study.

1. Methodology

This study uses purposeful sampling [16]. The respondent criteria are that they have become customers of the DP and HU brands. Accustomed to making online and offline purchases for Muslim clothes, including the DP and HU brands. The number of samples used in this study is one hundred Muslim women, ranging in age from 20 to 60 years. In this study, the data collection method used was a questionnaire—collecting data by using questionnaires through forms containing questions and submitted in writing to respondents. The list of questions in this study used closed questions.

The variables analyzed are the dependent variable or dependent variable (Y), which includes Willingness to Pay Premium (Y), and the independent variable or independent variable (X) includes product quality (X1), trend (X2), brand (X3), and price (X4). The research data analysis method in this fashion business case used the Structural Equation Modeling (SEM). The SEM analysis step of the measurement model or outer model describes any relationship between latent variables and their manifest variables. The software used in this study was WarpPLS version 5.0. The measurement model for consumer respondents HU and DP are in Figure 1.

Quality (X1)

Trend (X2)

Brand (X3)

*Willingness to Pay Premium* (Y)

Price (X4)

Figure 1. Design of the Research Model

The questionnaire is closed using four alternative answers containing quality, trend, brand, and price statements. The questionnaires were distributed to one hundred respondents for purpose sampling through the google form application via the WhatsApp link. Respondents selected were adult Muslim women, online and offline customers for DP and HU brands. This selection is essential to get a valid opinion about women's Muslim clothing products in Indonesia.

SEM steps are as follows the evaluation of the measurement model (outer model) and structural model (inner model). The outer model consists of:

1. Indicator reliability, shows how many variants of indicators can be explained by latent variables by taking into account the loading factor value> 0.6. The higher the outer loading value of a construct indicates that the indicators in the construct have a lot in common. This characteristic is called an indicator of reliability.
2. Convergent validity, generally checked with average variance extracted (AVE).

The inner model consists of:

1. Determine the value of the path coefficient, which is standardized with a value range of -1 to +1. The path coefficient value that is close to the value of +1 indicates a strong positive relationship, whereas if the value is close to -1 it indicates a strong negative relationship.
2. Inner model analysis can be evaluated by using R-square for the dependent construct. In addition to seeing the R-square value, the PLS (Partial Least Square) model is also evaluated by looking at the predictive relevance Q-square value for the constructive model.
3. Result and Discussion

Factor loading is the initial stage in testing the validity of a model, the condition for the loading factor is that it must be> 0.6 which is less than 0.6 which is not used [17]. To find out the analysis of the outer model of this research, it can be seen in table 1 below:

Table.1 Outer model algorithm results

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   | X1 | X2 | X3 | X4 | Y | SE | P value |
| X1.1 | (-0.150) | 0.171 | 0.257 | -0.091 | -0.118 | 0.096 | 0.060 |
| X1.2 | (0.730) | -0.166 | 0.038 | -0.135 | 0.162 | 0.082 | <0.001 |
| X1.3 | (0.098) | 0.136 | -0.028 | 0.437 | 0.026 | 0.097 | 0.158 |
| X1.4 | (0.802) | 0.167 | 0.017 | 0.053 | -0.173 | 0.080 | <0.001 |
| X2.1 | -0.012 | (0.619) | -0.042 | 0.288 | 0.146 | 0.085 | <0.001 |
| X2.2 | 0.327 | (0.560) | -0.100 | -0.197 | -0.030 | 0.086 | <0.001 |
| X2.3 | 0.275 | (-0.640) | -0.128 | 0.106 | 0.115 | 0.084 | <0.001 |
| X3.1 | -0.081 | -0.041 | (0.764) | 0.099 | 0.066 | 0.081 | <0.001 |
| X3.2 | 0.030 | 0.035 | (0.011) | 0.457 | -0.465 | 0.100 | 0.455 |
| X3.3 | 0.112 | 0.318 | (0.538) | 0.078 | -0.103 | 0.086 | <0.001 |
| X3.4 | 0.002 | -0.177 | (0.792) | -0.155 | 0.013 | 0.081 | <0.001 |
| X4.1 | 0.011 | -0.125 | -0.037 | (0.568) | -0.145 | 0.086 | <0.001 |
| X4.2 | 0.015 | -0.156 | 0.219 | (0.268) | -0.000 | 0.093 | 0.002 |
| X4.3 | 0.050 | 0.015 | -0.026 | (0.832) | 0.181 | 0.080 | <0.001 |
| X4.4 | -0.078 | 0.150 | -0.023 | (0.672) | -0.101 | 0.083 | <0.001 |
| Y1.1 | 0.262 | -0.028 | 0.016 | 0.071 | (-0.702) | 0.083 | <0.001 |
| Y1.2 | -0.113 | -0.193 | -0.025 | 0.553 | (-0.281) | 0.093 | 0.002 |
| Y1.3 | -0.098 | -0.177 | -0.087 | 0.188 | (0.603) | 0.085 | <0.001 |
| Y1.4 | 0.367 | 0.057 | 0.100 | 0.159 | (0.575) | 0.086 | <0.001 |

Table 1 shows that the loading factor of more than 0.6 for the quality variable (X1) is X1.2 and X1.4. The trend variable (X2) which fulfills the conditions is X2.1. The brand variables (X3) are X3.1 and X3.4. and the price variables that meet the requirements are X4.3 and X4.4. Convergent validity is used to obtain a value based on the correlation between the component / indicator value and the construct value. In this study, the expected average variances extracted value is> 0.5 but if the AVE value is below 0.5 but the CR value is above 0.6 then the data is still acceptable [18]. The results of the average variances extracted (AVE) and Composite Reliability (CR) values ​​can be seen in Table 2.

Table 2. Results of Average Variances Extracted (AVE), Composite Reliability (CR)

|  |  |  |
| --- | --- | --- |
| Variable | AVE | CR |
| X1 (Quality) | 0.302 | 0.439 |
| X2 (Trend) | 0.369 | 0.133 |
| X3 (Brand) | 0.375 | 0.639 |
| X4 (Price) | 0.385 | 0.690 |
| Y (*Willingness To Pay*) | 0.317 | 0.014 |

Table 2 shows the results of the calculation of Average Variances Extracted (AVE) and Composite Reliability (CR). In this study, the expected average variances extracted was> 0.5. From the calculation of the highest AVE is the variable price with an AVE value of 0.385 and the willingness to pay is 0.317 so that no one reaches the expected AVE point. In the price variable, it appears that the CR value is 0.690 with willingness to pay is 0.014. From the calculation of CR that meets the requirements of more than 0.6 is the variable price, namely 0.69. AVE is under 0.5, however composite reliability is higher than 0.6, the convergent validity of the construct is still acceptable [18].

The structural model or inner model describes the relationship model between latent variables which is formed based on the substance of the R-Square theory. R-Square is used to measure the success rate of the regression model we use in predicting the value of the dependent variable. The determination of R squared which shows several percentages of the variance of endogenous constructs can be explained by the construct which is hypothesized to influence it (exogenously) the higher the R squared, the better. Requirements that must be on the q square test are 0.02 (small), 0.15 (moderate) and 0.35 (large). The value of Q squared must be greater than 0 (zero), the calculation for Q squared 0.129. This means that the predictive validity model estimate is small, which is more than 0.02. It can be concluded that the variables used have a fairly good effect.

Table 3. Results of the R-Square inner model and Q-square

|  |  |  |
| --- | --- | --- |
|  | R-Square | *Q-squared* |
|  | X1 | X2 | X3 | X4 |  |
| Y | 0.001 | 0.038 | 0.025 | 0.011 | 0.129 |

To make a decision, which variable has an effect on willingness to pay, is shown in Table 4. The basis for the decision is that p-value> 0.05, then H0 is accepted, while H1 is rejected, and p-value <0.05, then H0 is rejected and H1 is accepted.

Table 4. Direct Effect Estimation Result Output

|  |  |  |  |
| --- | --- | --- | --- |
| Hypothesis | Path Coefficients | P-Value | information |
| Product quality to willingness to pay | 0.020 | 0.421 | Not significant |
| Trend to willingness to pay | 0.187 | 0.026 | Significant |
| Brand to willingness to pay | -0.149 | 0.062 | Not significant |
| Price to willingness to pay | 0.082 | 0.202 | Not significant |

The estimation results of the path coefficients to test the strength of the direct influence between the predictor variables on the criteria without the role of the mediating variable. The basis for the decision is that the p-value is> 0.05, then H0 is accepted, while H1 is rejected, and the p-value is <0.05, then H0 is rejected and H1 is accepted. The p-value of the product quality variable against willingness to pay is 0.421 (above the value of 0.05), so H0 is accepted and H1 is rejected with a path coefficient value of -0.020. It means that the price quality variable has no effect on willingness to pay. The p-value of the brand variable for willingness to pay is 0.026 (above the value of 0.05), so H0 is rejected and H1 is accepted with a path coefficient value of 0.187. It means that the trend variable has an influence on willingness to pay. The p-value of the trend variable for willingness to pay is 0.062 (above the value of 0.05), so H0 is accepted and H1 is rejected with a path coefficient value of -0.149. It means that the brand variable has no influence on willingness to pay. The p-value of the price variable for willingness to pay is 0.202 (above the value of 0.05), so H0 is accepted and H1 is rejected with a path coefficient value of 0.082. It means that the price variable has no influence on willingness to pay. Of the four variables, it turns out that the trend variable has a significant effect on willingness to buy.

This study's results indicate that the variable that most influences willingness to buy is the trend. This result supported previous study trends that affected in young customers [19]. Even though the respondents are regular customers of both brands, it turns out that if the two brands are not provided with products that are in line with the trend, they will not hesitate to choose another brand. This study's findings are different from the previous one. Namely, the indicator that affects customer satisfaction is performance [20]. In this study, the brand variable did not have a significant impact on the willingness to buy. This is different from previous studies of fashion, which states that brands affect purchase intention as an unfunctional factor [21][22][10]. However, in the previous research, the brands used as the basis of the research were global brands, whereas, in this study, the brands used were original Indonesian local brands. Even though the two brands were well-known in Indonesia, they did not significantly impact consumer buying intentions.

The study conducted tried to explore a different side from previous research, although the trend variable only distinguished it. This study gives a surprise that even though you have become a customer of a well-known brand, it turns out that the variable that has a significant influence and becomes the basis for the decision to buy Muslim clothes is a trend factor—brand as the decision to buy Muslim clothes to global brands [21][23]. Interestingly, in this study, it turns out that Indonesian consumers, for local Muslim clothing brands in Indonesia, are not an essential factor. Trends can be created by Muslim clothing manufacturers, especially Indonesia Muslim fashion, which has an Islamic spiritual business [24]. While brands management did not build only on prestige, but building a brand is the same as developing trust, culture, and business systems [25][26]. Trust is currently also dominated by mobile technology and consumer reviews. Even potential consumers trust reviews more than advertisements [27][28][29].

1. Conclusion

This study proves that the trend variable has more impact on willingness to pay than the variable brand, price, and quality. This study shows that although the Muslim clothing products purchased are branded products, the brand is not an important variable in making a buying decision. For consumers, design trends are more important than the other three variables. This study also proven that Indonesian consumers are based on trends or fast fashion consumption, they rely on trend as basis of buying decision. The price variable turns out to be not the main factor. Even the brand has become one variable for customers will pay more expensive, but in this study deliver the opposite results. Buyers are willing to pay more if the wanted product is following the current trend. Meanwhile, the quality factor is also not a significant factor, this means, in woman Muslim fashion, quality is needed but not significantly as buying decision. This study has limitations. It only examines trends, price, quality, and brand variables. Many gaps can be explored, such as variable delivery, service, the interaction between sellers and buyers, which can be used as development studies. This study of willingness to pay only examines two local brands, Muslim clothing in Indonesia. Future research can be developed with brand equity, compared to other Muslim clothes, with global brands.

1. Acknowledgment

The author acknowledges the support of the research funding on Universitas PGRI Adi Buana Surabaya.

1. References

[1] Bhardwaj V and Fairhurst A 2010 Fast fashion: Response to changes in the fashion industry *Int. Rev. Retail. Distrib. Consum. Res.* **20** 165–73

[2] Yu S, Hudders L and Cauberghe V 2018 Are fashion consumers like schooling fi sh ? The e ff ectiveness of popularity cues in fashion e-commerce **85** 105–16

[3] Novotova J 2016 Determining the categories of fashion by price and quality from a consumer point of view *AD ALTA-Journal Interdiscip. Res.* **6** 70–7

[4] Cooper R G 2018 The drivers of success in new-product development *Ind. Mark. Manag.* 1–12

[5] Dewi D S, Syairudin B and Nikmah E N 2015 Risk Management in New Product Development Process for Fashion Industry: Case Study in Hijab Industry *Procedia Manuf.* **4** 383–91

[6] Zennouche M, Zhang J and Bo W W 2014 Factors influencing innovation at individual, group and organisational levels: A content analysis *Int. J. Inf. Syst. Change Manag.* **7** 23–42

[7] Goworek H, Oxborrow L, Claxton S, McLaren A, Cooper T and Hill H 2018 Managing sustainability in the fashion business: Challenges in product development for clothing longevity in the UK *J. Bus. Res.* 0–1

[8] Unger D and Eppinger S 2011 Improving product development process design : a method for managing information flows , risks , and iterations

[9] Meraviglia L 2018 Technology and counterfeiting in the fashion industry : Friends or foes ? *Bus. Horiz.* **61** 467–75

[10] Acharya A, Singh S K, Pereira V and Singh P 2018 Big data, knowledge co-creation and decision making in fashion industry *Int. J. Inf. Manage.* **42** 90–101

[11] Guercini S, Bernal P M and Prentice C 2018 New marketing in fashion e-commerce *J. Glob. Fash. Mark.* **9** 1–8

[12] Philip R S, Anian A M and Raja A S M 2020 Planned fashion obsolescence in the light of supply chain uncertainty *Acad. Strateg. Manag. J.* **19** 1–17

[13] Bonnefoi T 2012 Demand Forecast for Short Life Cycle Products: Zara Case Study 1–15

[14] Kabukcu E 2016 A Research on QFD- " House of Brand " in Fashion Industry

[15] Saha S K, Zhuang G and Li S 2020 Will consumers pay more for efficient delivery? An empirical study of what affects E-customers’ satisfaction and willingness to pay on online shopping in Bangladesh *Sustain.* **12**

[16] Koerber A and McMichael L 2008 Qualitative sampling methods: A primer for technical communicators *J. Bus. Tech. Commun.* **22** 454–73

[17] Arifin W N and Yusoff M S B 2016 Confirmatory Factor Analysis of the Universiti Sains Malaysia Emotional Quotient Inventory Among Medical Students in Malaysia *SAGE Open* **6**

[18] Lam L W 2012 Impact of competitiveness on salespeople’s commitment and performance *J. Bus. Res.* **65** 1328–34

[19] Gazzola P, Pavione E, Pezzetti R and Grechi D 2020 Trends in the fashion industry. The perception of sustainability and circular economy: A gender/generation quantitative approach *Sustain.* **12** 1–19

[20] Ningsi B A 2018 Analisis Kepuasan Pelanggan Atas Kualitas Produk dan Pelayanan Dengan Metode SEM-PLS *J. Stat. dan Apl.* **2** 8–16

[21] Akturan U and Bozbay Z 2018 Attractiveness, Purchase Intention, and Willingness to Pay More for Global Brands: Evidence from Turkish Market *J. Promot. Manag.* **24** 737–54

[22] Joy A, Sherry J F, Venkatesh A, Wang J and Chan R 2012 Fast fashion, sustainability, and the ethical appeal of luxury brands *Fash. Theory - J. Dress Body Cult.* **16** 273–95

[23] Netemeyer R G, Krishnan B, Pullig C, Wang G, Yagci M, Dean D, Ricks J and Wirth F 2004 Developing and validating measures of facets of customer-based brand equity *J. Bus. Res.* **2963** 209–224

[24] Kurt Y, Sinkovics N, Sinkovics R R and Yamin M 2020 The role of spirituality in Islamic business networks: The case of internationalizing Turkish SMEs *J. World Bus.* **55** 101034

[25] Beltrami M, Kim D and Rolkens F 2020 *The State of Fashion 2020* (McKinsey & Company)

[26] Wang L 2016 The New Trend and Application of Customer Relationship Management under Big Data Background *Mod. Econ.* **7** 841–8

[27] Park D H, Lee J and Han I 2007 The effect of on-line consumer reviews on consumer purchasing intention: The moderating role of involvement *Int. J. Electron. Commer.* **11** 125–48

[28] Filieri R 2015 What makes online reviews helpful? A diagnosticity-adoption framework to explain informational and normative influences in e-WOM *J. Bus. Res.* **68** 1261–70

[29] Mehta P and Pandya S 2020 A review on sentiment analysis methodologies, practices and applications *Int. J. Sci. Technol. Res.* **9** 601–9

[30] Carol Cavender R 2018 Exploring the Influence of Sustainability Knowledge and Orientation to Slow Consumption on Fashion Leaders’ Drivers of Fast Fashion Avoidance *Am. J. Theor. Appl. Bus.* **4** 90