AN ANALYSIS OF FACTORS THAT AFFECT CONSUMERS' ONLINE PURCHASE INTENTION FOR PREMIUM PRODUCTS IN MALAYSIA

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Abstract— This study aims to analyze the factors influencing consumers' online purchase intention for premium products, particularly exploring the interrelationship between perceived risk, perceived quality, and customer reviews. The research holds significant value for businesses, retailers, and marketers as it provides insights into crucial aspects that can likely entice consumers to make online purchases for premium products. By understanding the importance of perceived risk, perceived quality, and customer reviews from the perspective of potential customers, businesses can enhance their marketing and promotional strategies to reinforce purchase intention effectively through e-commerce space. Additionally, the study highlights the significance of integrating customer cues in marketing initiatives, allowing businesses to tailor their approaches and boost purchase intention for premium products. Ultimately, the findings of this research are expected to permit businesses and retailers to enhance consumers' purchase behavioral intentions and, hopefully, shift such intentions to actual purchase, leading to increased sales and improved customer satisfaction.

Keywords—Perceived Risk, Perceived Quality, And Customer Reviews, Online Purchase Intention

I. INTRODUCTION

The body of knowledge surrounding consumers' buying intention has been extensively explored by scholars in the field of consumer behaviour and marketing. One of the trailblazers that fundamentally contributes to this field is Ajzen, who introduced the Theory of Planned Behaviour (TPB) in 1985. This theory has been applied for, among others, predicting consumer behaviour in a variety of settings (Seow et al., 2017), examining the relationship between perceived risk and attitude (Wang et al., 2020), predicting the effect of attitude on intention (Chetioui et al., 2020), and analysing the impact of customer reviews on purchase intention (Handarkho, 2020).

Apart from TPB, there are other two models that have been examined in this field in the context of purchase intention namely the Signalling Theory (Atkinson & Rosenthal, 2014) and the Risk Perception Theory (Masoud, 2013). While previous studies have largely focussed on the application of each model individually, there is a lack of in-depth understanding on how these theories can be integrated to develop a novel conceptual framework to provide a basis for analysing consumers' buying intention.

Moreover, previous studies in the field of consumer behaviour in relation to expensive consumer goods have primarily emphasised on purchase intention for luxury products, rather than premium products. Citing some examples, Salem & Salem (2018) examined the factors influencing purchase intention for luxury fashion goods, Ko et al., (2019) and Fu (2020) proposed a universally accepted definition of luxury goods to be established, Hopper (2021) found the relationship between luxury products and customers' trust in certain brands, Ashfaq et al., (2018) discovered the impact of perceived risk on online buying behaviour of luxury brands, and Husic & Cicic (2009) described luxury products as high-value prestigious goods that evoke consumers' confidence and increase their self-esteem.

On the other hand, there is only a handful of literature on premium products which include, among others, investigation into the effect of online customer reviews towards purchase behaviour of premium cosmetic products (Sutanto & Aprianingsih, 2016), analysis of the characteristics of a premium house brand (Immonen, 2010), and examination of the relationship between quality and premium products sold under a house brand (Chaniotakis et al., 2009). As such an in-depth understanding of purchase intention towards premium products in the field of consumer behaviour is still inadequate.

Additionally, existing studies have explored various other factors such as trust and security, perceived ease of use and usability, perceived usefulness, social influence, website design and layout, and demographics (Aydın, 2019; Escobar-Rodríguez & Bonsón-Fernández, 2017; Moslehpour et al., 2018). However, there is a lack of research that specifically investigates the effect of and the interrelationship between three specific variables - perceived risk, perceived quality, and customer reviews - on consumers' purchase intention. Hence, there is still a need for rigorous knowledge in this field by looking at such factors and the combination of these factors in affecting consumers' purchase intention.

II. LITERATURE REVIEW

A. Online Purchase Intention

The existing body of literature extensively explores the concept of customers' purchase intention within the space of e-commerce, encompassing various platforms like businesses' websites, online shopping platforms, and social media. Raman (2019) emphasised the importance of understanding consumers'

intention to engage in online shopping, as it directly influences their readiness to make internet-based purchases. Meanwhile, Petersen et. al. (2018) stressed the effectiveness of intentional measures over behavioural measures in comprehending customers' mindsets. It becomes crucial to discern whether online purchases are driven by genuine preferences or constraints, making the examination of factors influencing online purchase intention a critical aspect of research in this field of consumer behaviour and marketing.

B. *Perceived Risk and Online Purchase Intention*

The relationship between risk perception and purchase intention has been the subject of investigation in various domains (Ariffin et al., 2018; Lăzăroiu, 2020; Yu, 2018). Meanwhile, Chen & Chen (2017) highlighted the contrast between in-store shopping, where consumers can physically assess products and interact with sales personnel, and online shopping, which lacks these opportunities, leading to heightened risk perception. A high perceived risk may, in turn, result in a perception of lower control over the online purchase decision, leading to hesitancy to buy products online. This is in line with the Theory of Risk Perception, whereby, consumers tend to avoid risk whenever possible (Rejikumar et al., 2022) and, therefore, an increase in perceived risk will reduce their willingness to purchase.

C. *Perceived Product Quality and Online Purchase Intention*

In order to establish context, this analysis begins with purchase intention through traditional instore approach whereby, according to Cahyani et al. (2017), perceived quality along with brand image and price have a significant effect on consumers purchase decision. Chen & Chen (2017) pointed up that the ability of consumers to physically inspect the quality of products has a significant influence on buying motivation. Moving on to the perspective of online purchase, Choudhuri (2018) found that perceived product quality, price orientation, and scepticism towards online shopping have a significant impact on online purchase intention. Hence, irrespective of shopping methods, the above findings suggest that perceived quality plays a pivotal role in influencing purchase intention.

D. *Customer Reviews and Online Purchase Intention*

In tandem with the Signalling Theory, the importance of customer reviews as a means of providing product cues was discussed by Gai (2014) who highlighted insights how consumers, due to the inability to physically interact with the products, heavily rely on the available product information, images, videos, and customer reviews. According to Yang et al. (2019), the presence of customer reviews influences customers' perception of the quality of premium products which, in turn, affects their purchase intention in line with the TPB. Customers' reliance on digital cues stresses the importance for businesses to provide relevant and sufficient information to facilitate a seamless and satisfying buying experience for consumers of premium products.

III. RESEARCH METHODOLOGY

Data is gathered using a single quantitative data collection technique through the use of an online structured questionnaire. The questionnaire is developed using Google Form and the link is distributed solely using a messaging application namely WhatsApp. The target population for this study comprises Malaysian consumers who have generally engaged in online shopping, in particular those who intend to purchase premium products in the near future.

A. *Conceptual Framework*

Taking cue from the overall literature review discussed earlier, the three important independent variables that can significantly affect the dependent variable are recognised as shown in Fig. 1.
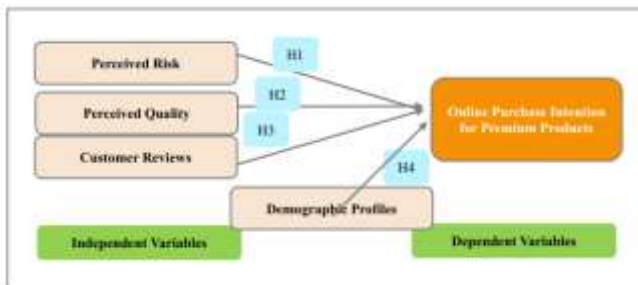

Fig. 1. Conceptual Framework

B. *Data Analysis Method*

The primary analysis method of this study employs Structural Equation Modelling (SEM) to examine the data gathered relating to the factors affecting consumers' online purchase intention for premium products. In employing the above method, Smart-PLS4 application will be used to establish models, thereby allowing pertinent information and data to be quickly analysed to facilitate the development of research findings. Such findings serve as a basis for accepting or, otherwise, rejecting the hypotheses. Smart-PLS4 application is a program that uses the Partial Least Squares (PLS) path modelling method for variance-based Structural Equation Modelling (SEM) where models can be estimated with data using its bult-in algorithms.

IV. RESULTS

In developing the study findings, as described earlier, PLS-SEM method was applied to conduct the analysis.

A. *Structural Model*

By meeting all the test criteria, the framework can be applied as a structural model to analyse the relationships between the latent constructs and the observed indicators, thereby allowing the hypotheses to be validly examined.
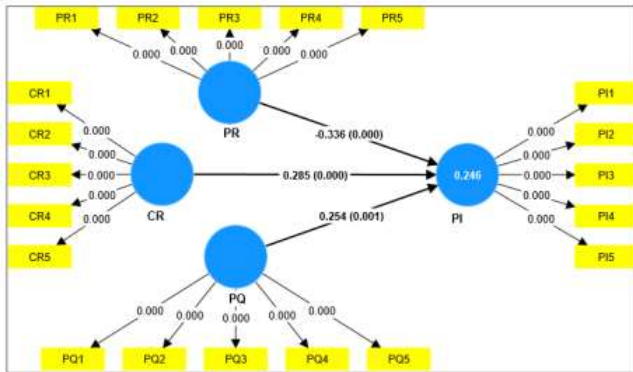

Fig. 2. Structural Model Analysis – Indicating Path Coefficients and P-Values

B. *Structural Model Path Coefficient*

A path coefficient measures the strength and direction of the relationship between an independent variable and a dependent variable, which also considers the impact of other factors in the model. It reveals how the standard deviation of the dependent variable changes when the independent variable is changed by one standard deviation while the other variables remain constant.

TABLE I.   STRUCTURAL MODEL PATH COEFFICIENT ANALYSIS

Relationship	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics (|O/STDEV|)	P-Values
CR -> PI	0.285	0.297	0.071	4.038	0.000
PQ -> PI	0.254	0.270	0.077	3.303	0.001
PR -> PI	-0.336	-0.343	0.070	4.783	0.000

Employing path coefficients to assess the relationship within the structural model generated results as depicted in Table I. Referring to the P-Values column, all the independent variables recorded values well below 0.05 at a confidence level of 95% indicating that the observed relationships between the variables were statistically significant and thus provide meaningful insights into the analysis. Customer Reviews (CR) recorded a marginally stronger positive effect on consumers' Online Purchase Intention (0.285, p<0.000) compared to Perceived Quality (0.254, p<0.001). Meanwhile, Perceived Risk had the strongest effect among the independent variables, albeit in an opposite manner, on purchase intention (-0.336, p<0.000). As regards the coefficient values, path coefficients with standardised values above 0.20 are usually acceptable.

C. Coefficient of Determination (R-squared Value)

R-squared is a statistical expression that represents the proportion of variance in the dependent variable that is explained by the independent variables in a regression model.

TABLE II.   COEFFICIENT OF DETERMINATION (R^2 VALUE)

Dependent Variable	R^2	R^2 Adjusted
PI (Online Purchase Intention for Premium Products)	0.246	0.230

The R-squared value was 0.246 which meant that the independent variables in the model could account for about 24.6% of the variance in the dependent variable. The remaining 75.4% of the variance was not accounted for and could be attributable to other variables not included in this study.

In relation to the Adjusted R-squared, it is a modified version of the R-squared which takes into consideration the number of independent variables in the model. The Adjusted R-squared value is typically slightly lower that the R-squared value as it penalises adding unnecessary variables to the model that may not significantly improve its explanatory power. In this study, the computed R-squared of 0.246 and adjusted R-squared of 0.230 were above the minimum benchmark value of 0.2. In addition, when it comes to predicting human behaviour like purchase intention, the inherent unpredictability of the subject often results in R-squared values falling below 0.5. Thus, the computed R-squared figure of 0.246 in this analysis was reasonable.

D. Hypotheses Testing

a) H1: There is a significant relationship between perceived risk and customers' online purchase intention for premium products: According to the established criteria (Hair et al., 2017), path coefficients with standardised values surpassing 0.20 are deemed substantial, while those falling below 0.10 are considered less substantial in terms of significance. Following the analysis performed, as indicated in Table III, it was observed that Perceived Risk exerted a statistically significant negative influence on Online Purchase Intention, with a coefficient of -0.336, which was above the abovementioned criteria of 0.20, and a p-value of less than 0.001, achieving a confidence level of 95%. A negative influence means that as the perceived risk increased, online purchase intention would tend to decrease, and vice versa. As such, 1-unit increase of standard deviation in Perceived Risk would lead to a decrease of approximately 0.336 units of standard deviation in Online Purchase Intention.

TABLE III.   AGGREGATE EFFECT OF PERCEIVED RISK ON ONLINE PURCHASE INTENTION

Path	Path coefficient	T statistics (|O÷STDEV|)	P values
Perceived Risk -> Online Purchase Intention	-0.336	4.783	0.000

Hence, the null hypothesis is rejected, and the alternative hypothesis is accepted. In conclusion, there is a significant negative relationship between perceived risk and customers' online purchase intention for premium products.

b) H2: Perceived quality significantly impacts customers' online shopping intention for premium products: As shown in Table IV, there existed a statistically significant positive effect of Perceived Quality on Online Purchase Intention, with a coefficient of 0.254, which was above the recommended criteria of 0.20, and a p-value of much less than 0.05, achieving a confidence level of 95%. A positive effect means that as the perceived quality increased, online purchase intention would tend to increase too and vice versa. As such, 1-unit increase of standard deviation in Perceived Quality would lead to an increase of approximately 0.254 units of standard deviation in Online Purchase Intention.

TABLE IV. AGGREGATE EFFECT OF PERCEIVED QUALITY ON ONLINE PURCHASE INTENTION

Path	Coefficient	T statistics (O/STDEV)	P values
Perceived Quality -> Online Purchase Intention	0.254	3.303	0.001

Hence, the null hypothesis is rejected, and the alternative hypothesis is accepted. In conclusion, Perceived Quality significantly impacts customers' Online Shopping Intention for Premium Products.

c) H3: Customer reviews significantly influence customers' online purchase intention for premium products: As shown in Table V, there existed a statistically significant positive effect of Customer Reviews on Online Purchase Intention, with a coefficient of 0.285, which was above the recommended criteria of 0.20, and a p-value of less than 0.001, achieving a confidence level of 95%. A positive effect means that as the customer reviews grew, online purchase intention would tend to contract too and vice versa. As such, 1-unit increase of standard deviation in Customer Reviews would lead to an increase of approximately 0.285 units of standard deviation in Online Purchase Intention.

TABLE V. AGGREGATE EFFECT OF CUSTOMER REVIEWS ON ONLINE PURCHASE INTENTION

Path	Coefficient	T statistics (O/STDEV)	P values
Customer Reviews -> Online Purchase Intention	0.285	4.038	0.000

Hence, the null hypothesis is rejected, and the alternative hypothesis is accepted. In conclusion, Customer Reviews significantly impact consumers' Online Shopping Intention for Premium Products.

d) H4: There are significant effects of the demographic profiles of individuals (gender, age, and income) on intention to purchase premium products online: Having performed the analysis, as indicated in Table VI, it was discovered that Age factor exerted a statistically significant negative effect on Online

Purchase Intention, with a coefficient of -0.230, which was above the recommended criteria of 0.20, and a p-value of less than 0.05, achieving a confidence level of 95%. A negative effect means that as the age increased, online purchase intention would tend to decrease, and vice versa. As such, 1-unit increase of standard deviation in Age would lead to a decrease of approximately 0.230 units of standard deviation in Online Purchase Intention. However, Gender and Income did not exert statistically significant effects on Online Purchase Intention as the recorded p-values of 0.338 and 0.679, respectively, were much greater than 0.05.

TABLE VI.   STRUCTURAL MODEL PATH COEFFICIENT ANALYSIS (MODEL A VS MODEL B)

Path	Model A			Model B		
	Path coefficients	Standard deviation (STDEV)	P values	Path coefficients	Standard deviation (STDEV)	P values
CR -> PI	0.285	0.071	0.000	0.237	0.074	0.001
PQ -> PI	0.254	0.077	0.001	0.313	0.084	0.000
PR -> PI	-0.356	0.070	0.000	-0.349	0.073	0.000
Age -> PI				-0.230	0.087	0.008
Gender -> PI				-0.137	0.076	0.338
Income -> PI				-0.038	0.071	0.679

Hence, the null hypothesis Age factor is rejected, which means that there is a significant negative relationship between Age and customers' Online Purchase Intention for Premium Products.

Conversely, the null hypotheses relating to Gender and Income are respectively accepted, which means that, there is no significant relationship between Gender and customers' Online Purchase Intention for Premium Products; and there is no significant relationship between individuals' Income and customers' Online Purchase Intention for Premium Products.

The variables in the model also interacted with each other as depicted in Table VII, whereby, the R-squared recorded a value of 0.299. This suggests that the independent and the demographic variables in the model could account for about 29.9% of the variance in the dependent variable of "Online Purchase Intention for Premium Products". The remaining 70.01% of the variance was not accounted for and could be attributable to other variables not included in this study.

TABLE VII.   COEFFICIENT OF DETERMINATION (MODEL B)

Dependent Variable	R^2	R^2 Adjusted
PI (Online Purchase Intention for Premium Products)	0.299	0.270

V. CONCLUSION

This study illuminates the significance of consumers' perceptions of online shopping risks, product quality, and product reviews as determinants shaping purchase intentions for premium products. The examination yielded compelling results, with the three core hypotheses validated at a robust confidence

level of 95%. This substantiates that these factors wield substantial influence over the online purchase intentions for premium products.

The congruence of the study's findings with those of prior research reinforces the importance of these factors across different contexts. Yet, this study stands apart due to several distinct characteristics. Primarily, while existing literature predominantly investigates luxury products, specific brands, or house-brands, this study concentrates on the sphere of expensive products in a broader sense. Moreover, the approach to constructing the conceptual framework involves a distinct blend of theoretical models, deviating from the typical single-model approach prevalent in many studies. The synergy of the selected independent variables forms a distinctive combination, considering the diverse dimensions within which other influencing factors can be categorized.

It is noteworthy that the R-squared value derived from Model B implies the potential existence of other unexplored factors accounting for 70% of the variance in online purchase intentions for premium products. Nonetheless, despite contributing to approximately 30% of this variance, the identified factors in this study interact synergistically and exert significant influence over consumers' purchase intentions.

In summary, this research underscores the pivotal role of consumers' perceptions regarding risks, quality, and customer reviews in the domain of premium online purchases. The results contribute to a more complete knowledge of consumer behavior in this domain by highlighting the distinctive features of the study and recognizing the potential for other influences. The complex interaction of the factors supports their combined influence on influencing consumers' intentions to purchase premium products online.

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