CONSUMER'S PERCEPTION TOWARDS REAL-TIME VIRTUAL FITTING SYSTEM

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ABSTRACT. There was very limited past research in Malaysia and worldwide that examined consumer acceptance of a real-time virtual fitting system. Most of the Malaysian citizens, specifically, are not aware about the existence of the real-time virtual fitting system and also the benefits of the system. This significant research gap motivates this study to be carried out to examine key factors affecting consumer's acceptance of a real-time virtual fitting system in order to ensure the success implementation of the real-time virtual fitting system in Malaysia. Online survey questionnaire were developed and the feedback from 200 respondents, who is Generation Y in Kuala Lumpur, Johor Bahru and Malacca were successfully collected. Perceived usefulness, perceived ease of use and attitude towards product are important determinants of consumer's intention to use real-time virtual fitting system.

Keywords: Perceive usefulness, perceived ease of use, real-time virtua fitting system.

INTRODUCTION

The industry of garment has been undergone a high-speed of transformation since last decade (Brooks, 2014). Real-time virtual fitting system is now becoming an increasing famous trend in developed countries, where many garment shops in the developed countries are starting to use the virtual fitting system for customers to determine whether the outfit they choose is suitable before purchase (Gültepe & Güdükbay, 2014). According to Sekine et al. (2014), real-time virtual fitting system senses the suitability of the outfits from 2 perspectives, the first perspective is color or intensity image and the second perspective is size or style image (Sekine et al., 2014).

A real-time virtual fitting system is convenient because this system allows the customers to try on the garments that they choose without the effort of changing them physically (Hauswiesner, 2013). This system has a very high business potential and has brought millions of above average returns to the garment and clothing industry (Ye, 2014). According to Gültepe and Güdükbay (2014), virtual fitting room is the fastest way to improve the cloth fitting experience. Due to the limited number of physical in-store fitting rooms, consumers usually have to spend most of their shopping time on queuing up outside the fitting rooms. The situation will be even be worsen during peak hours. With the implementation of a real-time virtual fitting system, it will shorten the waiting time of the customers and increase customer's patience and customer satisfaction (Hauswiesner, 2013).

Despite the above benefits, Ye (2014) has also highlighted some possible drawbacks of a real-time virtual fitting system. The design and implementation of a real-time virtual fitting system is a very arduous task that requires concentrated effort form many technical experts and software engineers, which make it costly and difficult for most businessmen who are not the expert in this field to design and implement a real-time virtual fitting system. Moreover, the screen of a real-time virtual fitting system requires a large portion of center space to display the consumer's mirror image. There is only a very small portion of the screen available to display information, such as instructions and functional menus (Yamada, 2014). The use if a real-time virtual fitting system is also often associated with the problem of unnatural images. The consumer's mirror image are divergent in term of brightness. Another main problem of a real-time virtual fitting system is the shape of the clothes often could not fitly match the body shape of a customer (Yamada, 2014).

There was very limited past research in Malaysia and worldwide that examined consumer acceptance of a real-time virtual fitting system. Most of the Malaysian citizens, specifically, are not aware about the existence of the real-time virtual fitting system and also the benefits of the system. This is a very significant research gap that motivates this study to be carried out to examine the perceived usefulness of current real-time virtual fitting system in order to ensure the success implementation of the real-time virtual fitting system in Malaysia in accordance with the consumers' needs and demands. In addition, this study also intends to examine consumer's perception of product performance, which may directly influence the successful implementation of a real-time virtual fitting system in Malaysia. Furthermore, the level of consumer's enjoyment and attitude of using the product will also be studied in this research so that effective recommendation can be provided to the industry practitioners to improve the consumer's experience and excitement in using the real-time virtual fitting system.

LITERATURE REVIEWS

Perceived Usefulness

Perceived usefulness is the level of a person trusts the system will help them in their work and the willingness to use the system (Davis, 1993). Perceived usefulness affects the end consumer's intention of using a new technology or system because people will have a positive expectation if they believe that the new technology is good to use or will bring a positive effect to their work performance (Holte, Gao & Brooks, 2015). There are positive connection between perceived usefulness and customer satisfaction (Rom, 2001).

Previous researcher such as Chuttur (2013) had focused on the significant of the perceived usefulness in forecasting consumer's behavior. According to Davis (1993), customer's intention to use or not to use a system depend the degree of they believe the system will help them in their work or not and whether the system is useful or not. If the function and feature of a real-time virtual fitting system is not good enough due to the perceived diversity between actual body and model images, it will reduce customer's perceived usefulness of the product and will significantly influence the consumer intention to use the real-time virtual fitting system (Small et al., 2015). Therefore, the following hypothesis is tested in this study:

H1: Perceived usefulness significantly influences consumer's intention towards using a real-time virtual fitting system

Perceived Ease of Use

Perceived ease of use refers to the level of the consumer believes that using the specific system would improve his or her performance (Davis, 1993). According to Rom (2001), the perceived ease of use is direct influence the consumer's intention to use a technology. The perceived ease of use is determining by how easy the individual interact with technology or

any system (Rom, 2001). According to Nakayima (2011), perceived ease of use refers to how obvious and easy to understand the interaction with the system is , and how easy of make the system do what the customer required, mental effort required to communicate with the system and how easy to use the system. Perceived ease of use as the element to which individual use of virtual fitting system is perceived as effortless and it may affects customer's intention to use the technology (Suki, 2011). Therefore, the following hypothesis is tested in this study:

H2: Perceived usefulness significantly influences consumer's intention towards using a real-time virtual fitting system.

Perceived Enjoyment

Perceived enjoyment is as an inherent source of motivation (Rom, 2001). According to Suki (2011), if the consumers enjoy using a system, the intention towards adoption will be positive. When the consumer are enjoyed using the system, the consumer will have more motivation to continue using the system. In addition, according to Legris, Ingham and Collerette (2003), perceived enjoyment is also a crucial determinant of virtual shopping as perceived enjoyment is found to have a direct influence on intention to use the product. Perceived enjoyment has also been linked to competence and conformity, the consumer will enjoy using the system when they are capable of using the system and if the system complies with the lifestyle of the consumers (Baron & Downey, 2007). Therefore, the following hypothesis is tested in this study:

H3: Perceived enjoyment significantly influences consumer's intention towards using a real-time virtual fitting system.

Attitude towards Product

According to Suki (2011), attitude towards product is one of the reasons that affect the intention of consumers in using a new technology. According to Lau and Lee (2016), a consumer's attitude towards product is closely related to the feature of the product. If the feature of a product is favorable to the consumer, there are high chances for the consumer to purchase the product. According to Rom (2001), consumer's attitude is very important in affecting consumer intention towards using real-time virtual fitting system. Therefore, the following hypothesis is tested in this study:

H4: Attitude towards product significantly influences consumer's intention towards using a real-time virtual fitting system.

The research framework of this study is depicted in Figure 1.
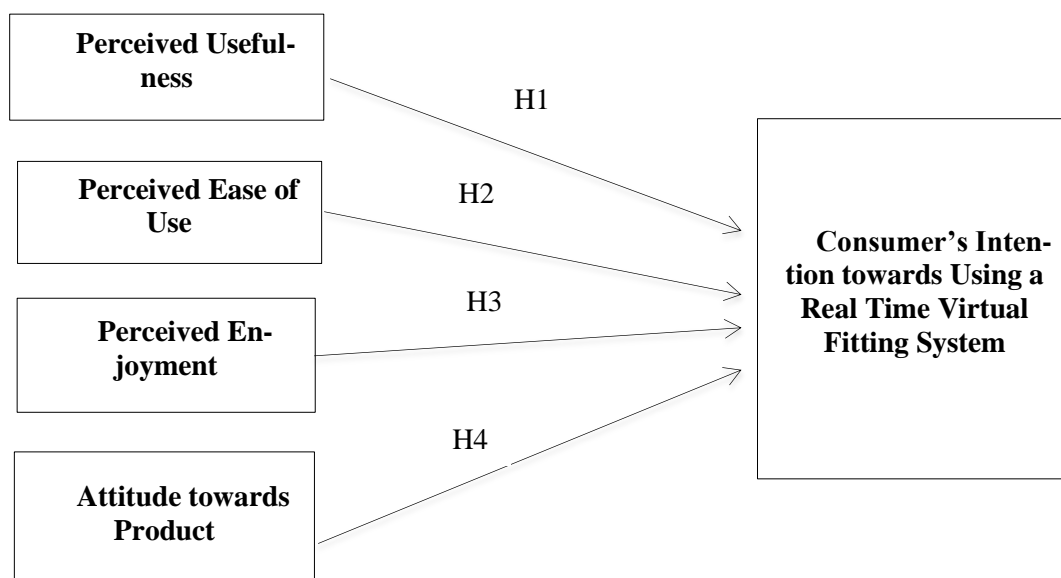

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Figure 1: Research Framework

RESEARCH METHODOLOGY

By using survey method as the data collection method for this research, a series of questions inquiring about factors affecting consumer intention to use a real-time virtual fitting system were prepared in June 2016. In this study, online survey questionnaire were developed and the feedback from 200 respondents who is Generation Y in Kuala Lumpur, Johor Bahru and Malacca were successfully collected. The link of the online questionnaire will be sent together with the link of a video to demonstrate to the respondents on how to use the virtual fitting system. This research is targeted at Generation Y, which was born between the late 1970s and the 1990s, because Generation Y is the most educated and tech savvy among all generations (PrincetonOne & Hobart, 2014). Generation Y grows up with technology, technology is part of the lives (PricewaterhouseCoopers, 2009). They are more attracted to new technology such as real-time virtual fitting system and have high purchasing power compare to others generation (Lim, Omar, & Thurasamy, 2015).

RESULT AND DISCUSSION

Multiple regression analysis is used in this research to examine the relationship between the dependent variable and independent variables. The analysis shows an R-square value of 0.638 which indicates that 63.8% of the variance in the dependent variable is explained by the independent variables in the model. As shown in Table 1, perceived usefulness, perceived ease of use and attitude towards product (p=0.000), are significant at 95% significance level. Perceived enjoyment is the most important factor (standardized beta coefficient = .330), perceived ease of use is the second most important factor (standardized beta coefficient = .264) and attitude towards the product is the third important factor (standardized beta coefficient = .220) affecting consumer intention towards using a real-time virtual fitting system. Hence, H1, H3 and H4 are supported while H2 is not supported.

Table 1: Multiple Linear Regression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.029	.130		.224	.823		
	Usefulness	.257	.069	.264	3.727	.000	.464	2.156
	EaseofUse	.116	.070	.105	1.660	.099	.583	1.717
	Enjoyment	.360	.089	.330	4.043	.000	.350	2.859
	Attitude	.220	.080	.220	2.746	.007	.365	2.740

Perceived usefulness and perceived enjoyment are the most important factor affecting consumer's intention towards using a real-time virtual fitting system. According to Small et al. (2015), when Generation Y are increasingly care about their body sizes, they will get higher enjoyment in using the real-time virtual fitting system. Moreover, real-time virtual fitting system incorporated with an interactive imaging technology is also perceived as useful in matching the clothes with the body shape of a customer. According to Patterson (2016), attitude towards a product play an important role in affecting Malaysian consumers' acceptance of a new product. Therefore, industry practitioners can regularly organize talks and exhibitions to introduce this new technology to ensure that consumers have a good attitude towards using the real-time virtual fitting system.

On the other hand, perceived ease of use is not a significant predictor of consumer's intention towards using a real-time virtual fitting system. This result shows that the Generation Y do not believe that the virtual fitting system is easy to use possibly because the technology is

still new for most Malaysians and there are not many people familiar with this system. Therefore, industry practitioners should promote consumer awareness through talks or campaigns. A skillful consumer could be employed to teach the new consumer how to use the system and to demonstrate how the western country has successfully introduced this virtual fitting system to their citizens. Moreover, the design of the real-time virtual fitting system can also be enhanced to improve the ease of use of the system. Improving the ease of use of the real-time virtual fitting system can increase the confidence of the consumers and increase the future acceptance of the technology. Industry practitioners should also undertake some product quality control measures to minimize product flaws and defects and improve consumer's intention towards using the real-time virtual fitting system.

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