AFFECTING OF E-COMMERCE WEBSITES ON CUSTOMER SATISFACTION: A CASE STUDY OF HOME PRODUCTS USERS
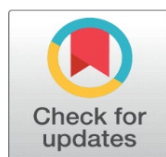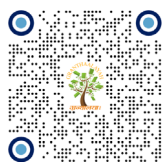
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ABSTRACT

This study aims to find out how the website's design, the quality of the information, security, responsiveness, and trust all affect customer satisfaction in the context of e-Commerce website of home product users in the Thai population. The objectives of this study are to investigate web design, information quality, security, responsiveness, and trust toward customer satisfaction in e-Commerce websites in home products. Data was gathered through a customers of home products thru online survey, and 385 participants response from home product user were analyzed using the JAMOVI program. The research results indicate that web design, security, responsiveness, and trust are crucial factors affecting customer satisfaction towards e-Commerce websites of home products. However, information quality has insignificant affecting on customer satisfaction in e-Commerce websites of home products. The findings in this study suggest that e-Commerce websites should have a good design website of their home product contents accurately and quickly, responding to the customers properly.

Keywords: Web Design, Information Quality, Security, Responsiveness, Trust, Customer Satisfaction

1. INTRODUCTION

Thailand is placed ninth with a 10% share of global e-commerce sales in 2021, and 74% of its people between the ages of 16 and 64 have bought something online Boxme Global (2021). The Thai government came up with a two-step plan to grow e-commerce. They think that by 2027, e-commerce sales will bring in 7.1 trillion Baht Arunmas (2022). According to E-Marketer (2017), 188% of Thais use cell

phones, and 90% use smartphones to access the internet ETDA. (2020). All of these things show that e-commerce will continue to grow in Thailand.

Given the rapid growth of e-commerce in Thailand, it is important to know how pleased customers are with their interactions with e-commerce websites and what makes them happy Reichheld and Schefter (2000). Studies show that 35–40% of e-commerce sales come from people who have bought from the same company Rosen (2001). In a study from 2007, Lin looked at how style, interactivity, information, security, responsiveness, trust, and empathy affect how happy people are with websites. A previous study examining how website quality affects customer satisfaction found that Lin (2007), Dhingra et al. (2020).

Even though Thailand has a lot of promise for e-commerce, not enough research has been done on how website design affects customer satisfaction. No studies have been done before on how a website's design, interactivity, information, security, responsiveness, and trust affect customer satisfaction in Thailand.

Statista says that the home goods market is a big part of the retail market and will bring in $327.68 billion in the United States in 2020 Statista. (2022). The rise of e-commerce has changed the way people shop for home goods in a big way. In 2020, online sales of home items, decorations, and appliances will increase by 44.4% Digital Commerce 360. (2022). Because of this, businesses that want to succeed in this competitive market need to know how e-commerce affects customer satisfaction in this industry.

Previous research has highlighted the need for a better understanding of the impact of e-commerce on customer satisfaction Fan et al. (2013), Mitchev et al. (2022), Mitchev and Nuangjamnong (2021). This study aims to fill this gap in the literature by investigating the factors that influence customer satisfaction with e-Commerce websites in the context of home product users. By focusing on the home products industry, this study will provide insights that can be applied to businesses operating in this sector.

Since 2020, the e-commerce industry has grown quickly. One reason is that digital funds have become safer and easier to use Zhang and Nuangjamnong (2022), Zhang and Nuangjamnong (2022). Major e-commerce sites like Amazon and eBay are now the most popular sites in the world. Online buying in Thailand is mostly done through Lazada, Shopee, HomePro, DoHome, etc. They can also find home product sellers on social media sites like Facebook, Instagram, and Line. Even though there is not much competition in the Thai e-commerce market, these sites still let people buy home goods. But there aren't many studies on how e-commerce sites affect customer satisfaction and trust in the company, especially in Thailand. Site design is an important part of e-commerce websites because it serves as the company's front page and plays a big role in getting and keeping people. But no study has examined how site design affects customer satisfaction in Thailand. Given how important customer experience is to sales, it is important for e-commerce companies in Thailand to know how web design affects customer satisfaction The Top eCommerce & Shopping Websites in Thailand (2023).

1.1. OBJECTIVES OF STUDY

This study aims:-

1) To describe web design, information quality, security, responsiveness, trust and customer satisfaction in home products.
2) To test affecting of web design, information quality, security, responsiveness, trust on customer satisfaction in home products.

1.2. RESEARCH QUESTIONS

These questions align with the study's objectives as following below:

1) What is web design, information quality, security, responsiveness, trust, and customer satisfaction that affect home products through e-Commerce?
2) Have web design, information quality, security, responsiveness, and trust affected customer satisfaction affect home products through e-Commerce?

This study can help home items e-commerce enterprises increase revenue and consumer satisfaction. Businesses can increase sales and profits by determining which aspects of a website's design affect client satisfaction. Improving customer satisfaction can lead to loyal consumers and positive word-of-mouth advertising, which can help e-commerce enterprises even more. Thus, this study improves more than only the user experience. It can also boost Thai home product e-commerce firms.

This study examines Thai home items e-commerce websites. This business's customer satisfaction will discuss web design, information quality, security, timeliness, and trust. Quantitative research is planned. Thai e-commerce home product purchasers will be surveyed online. To determine if age, gender, and wealth affect customer satisfaction, the study will also examine responses. Since trust is essential to long-term consumer connections in e-commerce, the study will also investigate the relationship between customer satisfaction and trust. Thai home products e-commerce enterprises will benefit from the study. They will demonstrate how website design may boost customer satisfaction and trust.

The study has flaws. First, the study will only examine the Thai home products business; therefore, its findings may not apply to other industries or regions. Second, online poll data may be biased or inaccurate. Third, the cross-sectional study will make linking independent variables to consumer satisfaction more challenging. Fourth, the study will only examine a few website design aspects, which may not cover all e-commerce customer satisfaction factors. The survey will examine consumer satisfaction. Customer loyalty and repeat purchases will not be considered. Despite its flaws, the study will teach us much about e-commerce customer satisfaction, particularly in Thailand's home products market.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT
2.1. CUSTOMER SATISFACTION

Customers are happy when their expectations for the buying process and the service they receive after the sale are met, according to Zhang and Nuangjamnong, (2022). Because most things sold through e-Commerce—books, CDs, flowers, electronics, software, etc.—are standardized products, applying this approach to e-Commerce immediately can be challenging. However, with e-Commerce generally, the goods' usefulness and customers' expectations are well matched. According to

Satornsantikul and Nuangjamnong (2022), consumers are more likely to be pleased with a product or service if they experience fairness and convenience during the ordering process. Customers are more likely to be dissatisfied with their purchases if they experience unfair treatment or anxiety during the ordering procedure. As a result, a customer's total satisfaction is significantly affected by how they feel about the ordering procedure. Business-to-business trade is something that Mitchev and Nuangjamnong (2021) investigates they claimed to have found a strong link between product satisfaction and customer contentment with the ordering procedure.

2.2. WEB DESIGN

One of the theories related to web design is the "Aesthetic-Usability Effect," which suggests that users perceive aesthetically pleasing designs as more usable and effective Tractinsky et al. (2000). Another theory is the "*Perceived Credibility Theory*," which suggests that website design features such as layout, typography, and color can influence users' perceptions of website credibility Fogg et al. (2001). Previous studies have shown that web design elements such as layout, color scheme, typography, and visual appeal can significantly affect user experience and satisfaction in e-commerce settings Chen and Li (2019), Kim and Moon (2018). These design elements can influence users' perception of website credibility and trustworthiness, which in turn affect their purchase intention and loyalty Hassanein and Head (2007), Kim and Moon (2018). Therefore, the researcher hypothesizes that:

Hypothesis 1 (H1): *Web design has no a significant positive effect on customer satisfaction in e-commerce settings.*

2.3. INFORMATION QUALITY

One of the theories related to information quality is the "Expectation-Confirmation Theory," which suggests that users' satisfaction with information quality is influenced by their expectations of the information and their confirmation of those expectations through their experience with the information Bhattacherjee (2001). Information quality refers to the accuracy, completeness, and timeliness of information presented on e-commerce websites Wang and Emurian (2005). Customers rely heavily on product information and reviews when making purchase decisions in online shopping Gao et al. (2014). High-quality product information can reduce uncertainty and perceived risk, increase trust and satisfaction, and ultimately lead to repeat purchase and positive word-of-mouth (WOM) Gefen and Straub (2004), Wang and Emurian (2005). Therefore, the researcher hypothesizes that:

Hypothesis 2 (H2): *Information quality has no a significant positive effect on customer satisfaction in e-commerce settings.*

2.4. SECURITY

Security is one of the most important concerns for online customers worldwide. Security credentials provided by an online store, privacy policy, and trust are only some parameters of web shopping security. The more these parameters are developed in a web store, the higher the level of customer satisfaction Corbitt et al. (2003). Most studies about security incorporate this in their research framework and test its influence on satisfaction, and trust Park and Kim (2003). The "Protection

Motivation Theory" suggests that users' intention to engage in secure online behavior is influenced by their perceived vulnerability to threats and their perceived effectiveness of security measures Rogers (1975). Based on this, the researcher formed the hypothesis as follows:

Hypothesis 3 (H3): Security has no a significant positive effect on customer satisfaction in e-commerce settings.

2.5. RESPONSIVENESS

According to the "*Technology Acceptance Model*," people are more likely to adopt new technologies if they find them useful and straightforward Davis (1989). Customers shopping online may find a responsive website more convenient and user-friendly. According to the "*Trust Transfer Model*," the credibility of a website is affected by the credibility of the entity with which it is associated, be it a brand or a firm Stewart and Pavlou (2002). The "*Social Exchange Theory*" is another popular explanation, and it proposes that factors like fairness and reciprocity in interactions shape people's willingness to trust one another Blau (1964). A user's trust in an online store may increase if they believe the site operates fairly and offers mutually beneficial services. Websites are considered more responsive if they provide timely and accurate feedback and support to users Flavián et al. (2006). Customer satisfaction and loyalty can rise or decrease depending on how quickly and effectively their questions and concerns are addressed Chen and Li (2019). Responding promptly to online shoppers' inquiries has increased their satisfaction and loyalty to a brand Flavián et al. (2006), Kim and Moon (2018). This leads the researcher to the following hypotheses:

Hypothesis 4 (H4): Responsiveness has no a significant positive effect on customer satisfaction in e-commerce settings.

2.6. TRUST

A customer's level of trust in an online merchant indicates their conviction in the latter is dependability, honesty, and ability to deliver on their promises Kumar and Benbasat (2006). Site elements, including aesthetics, content, safety, and responsiveness, all play a role in establishing credibility Gefen (2002), Kim and Moon (2018). Trust has been found to improve e-commerce metrics like consumer satisfaction, loyalty, and conversion Gefen et al. (2003), Kim and Moon (2018). This leads us to the following hypotheses:

Hypothesis 5 (H5): Trust has no a significant positive effect on customer satisfaction in e-commerce settings.

2.7. CONCEPTUAL FRAMEWORK

As can be seen in Figure 2.3, the conceptual framework has been adopted from the two theoretical frameworks by Lin (2007) framework and Saleem et al. (2022) framework. This study is based on posits that factors such as web design, information quality, security, responsiveness, and trust as independent variables have a substantial effect on customer satisfaction as a dependent variable that is measured through e-Commerce.
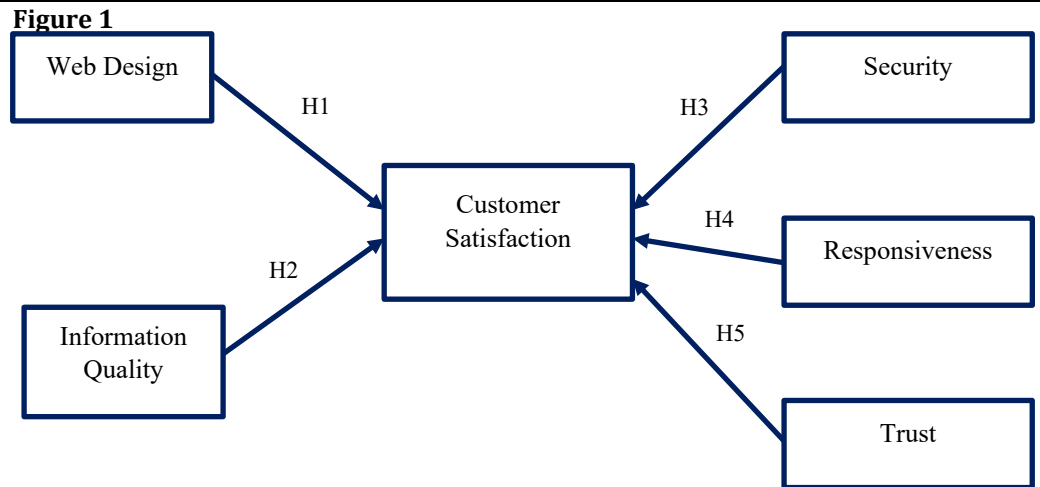
Figure 1

Figure 1 The Conceptual Framework
Source. Constructed by researchers.

3. MATERIAL AND METHODS
3.1. SAMPLE

This study used simple random selection to select a sample from a population where every person is equally likely to be determined. This study employed a simple random model to choose survey participants. This survey sampled Bangkok Home Products buyers. The formula for predicting sample size with a confidence level of 95% and a margin of error of 5% yielded 385.

An online questionnaire was used to recruit and target Thai online shoppers; also, this advertisement targets Thai online shoppers from the past year. Age, gender, income, education, employment, and marital status was conducted in the second part of the survey to explain general information about respondents. Because of online shopping has grown among a significant population. This may be owing to extensive internet access. Online consumer databases of popular e-commerce, social networking, and survey platforms can reach this audience.

Thai e-commerce sites. This study samples Thai online buying websites. Online directories, search engines, and other sources will build this list. Thai websites selling home products online are eligible for the sample frame. The list will determine the study's client sample.

- Lazada Thailand - https://www.lazada.co.th/
- Shopee Thailand - https://shopee.co.th/
- JD Central - https://www.jd.co.th/
- HomePro - https://www.homepro.co.th/
- Robinson Online - https://www.robinson.co.th/
- Power Buy - https://www.powerbuy.co.th/
- Central Online - https://www.central.co.th/
- Ikea Thailand - https://www.ikea.com/th/en/
- Index Living Mall - https://www.indexlivingmall.com/
- Home-Mart - https://www.home-mart.co.th/

Procedure:

1) Obtain a list of online shopping websites in Thailand from a reputable source.
2) Assign a unique identification number to each website on the list.
3) Contact the selected websites and request permission to conduct the study among their customers.
4) Wait for the responses to be returned.
5) Use the collected data for analysis.

3.2. VALIDITY AND RELIABILITY
3.2.1. CONTENT VALIDITY (IOC)

Overall, the content validity of this study was ensured through a rigorous research design, systematic data collection, and relevant data analysis techniques. All items have greater than 0.5, which IOC weight by three experts shown in Table 1.

Table 1

Table 1 IOC Weight Scores by Three Experts				
Variables	**Before**	**After**	**IOC Value**	
	No. of items	**No. of items**		
Web Design (WD)	5	5	WD1	1
			WD2	1
			WD3	1
			WD4	1
			WD5	1
Information quality (IQ)	4	4	IQ1	0.67
			IQ2	0.67
			IQ3	1
			IQ4	1
Security (S)	3	3	S1	0.67
			S2	0.67
			S3	0.67
Responsiveness (R)	3	3	R1	0.67
			R2	0.67
			R3	0.67
Trust (T)	3	3	T1	0.67
			T2	0.67
			T3	0.67
Customer satisfaction (CS)	3	3	CS1	0.67
			CS2	0.67
			CS3	0.67

3.2.2. RELIABILITY TEST (PILOT TEST)

The reliability of the questionnaire was measured by Cronbach's Alpha coefficient, which indicates the internal consistency of the items. The minimum acceptable value of Cronbach's Alpha is 0.6 Sekaran (1992). Pilot Test - A pilot test will be conducted with a small group of participants before distributing the survey questionnaire to the sample population. The pilot test will help to identify any errors or discrepancies in the questionnaire. In this study, the researcher conducts a small group of 30 respondents for a pilot test, Cronbach's Alpha and internal consistency's rules, refer to Cronbach (1951), the reliability $\alpha > 0.9$ = Excellent; $0.8 < \alpha < 0.9$ = Good; $0.7 < \alpha < 0.8$ = Acceptable; $0.6 < \alpha < 0.7$ = Questionable; $0.5 < \alpha < 0.6$ = Poor; and $\alpha < 0.5$ Unacceptable.

From Table 2, the research can conclude that Cronbach's alpha of each variable is web design with $\alpha = 0.769$, information quality with $\alpha = 0.775$, security with $\alpha = 0.806$, responsiveness with $\alpha = 0.779$, trust with $\alpha = 0.745$, and customer satisfaction with $\alpha = 0.748$. All factors are above the threshold of 0.6, which means they are reliability. Table 2 presents a reliability test with Cronbach's Alpha results.

Table 2

Table 2 Results from Pilot Test – Cronbach's Alpha			(n=30)
Variables	**Cronbach's Alpha**	**Number of Items**	**Reliability Test**
Web Design	.769	5	Acceptable
Information Quality	.775	4	Acceptable
Security	.806	3	Good
Responsiveness	.779	3	Acceptable
Trust	.745	3	Acceptable
Customer Satisfaction	.748	3	Acceptable

4. RESULTS
4.1. RELIABILITY TESTING

To ensure the reliability of the 385 respondents, the researcher conducted a reliability test using Cronbach's Alpha with all respondents. This test aimed to detect any discrepancies or inaccuracies in the items before performing statistical treatment data.

Table 3, the researcher used the statistical program to analyze Cronbach's Alpha to test the reliability of each group of the variables. There are altogether six variables in this study. The factors that affecting of e-Commerce websites on customer satisfaction: a case study of home products users contains six variables, consisting of web design, information quality, security, responsiveness, trust, and customer satisfaction. The results after testing of 385 respondents showed that the items values of each variable are all higher than 0.6, meaning the reliability of six variables are reliable. The variable of web design contains 5 items ($\alpha = 0.716$), followed by information quality contains 4 items ($\alpha = 0.810$), security contains 3 items ($\alpha = 0.814$), responsiveness contains 3 items ($\alpha = 0.862$), trust contains 3 items ($\alpha = 0.829$), and customer satisfaction contains 3 items ($\alpha = 0.853$).

Table 3

Table 3 Cronbach's Alpha			(n=385)
Variables	**Cronbach's Alpha**	**Number of Items**	**Internal Consistency**
Web Design (WD)	0.716	5	Reliable

Information Quality (IQ)	0.810	4	Reliable
Security (Sec)	0.814	3	Reliable
Responsiveness (R)	0.862	3	Reliable
Trust (T)	0.829	3	Reliable
Customer satisfaction (CS)	0.853	3	Reliable
Overall	0.708		Reliable

4.2. DESCRIPTIVE ANALYSIS OF DEMOGRAPHIC DATA

Table 4, Age; the majority of the respondents fall within the age range of 25-34 years old, with a total number of 83 and a percentage of 21.6. This is followed by respondents aged between 45-54 years old, with a number of 79 and a percentage of 20.5. Respondents aged between 18-24 years old had a number of 78 and a percentage of 20.3, while those aged between 55 and above years old had a number of 74 and a percentage of 19.2. Finally, those aged between 35-44 years old had a number of 71 and a percentage of 18.4.

Gender; out of the total 385 respondents, 35.3% (136 respondents) were female while 34.5% (133 respondents) were male, and 30.1% (116 respondents) were non-binary.

Education; out of the total of 385 respondents, the majority had a doctoral degree with a total of 84 and a percentage of 21.8%. This was followed by those with an associate's degree, with a total of 80 respondents and a percentage of 20.8%, those with a bachelor's degree, with a total of 77 and a percentage of 20.0%, with high school diploma or equivalent a total of 74 and a percentage of 19.2%. The remaining respondents had completed master's degree, with a total of 70 and a percentage of 18.2%.

Income; Among the respondents in this research, those with an income of 20,001-35,000 Baht had the highest number with 109 individuals or 28.4%, followed by those with income less than 20,000 Baht with 96 individuals or 25.0%. The group with income more than 50,000 Baht had 92 respondents or 24.0%. Lastly, the group with income of 35,001-50,000 Baht had 87 respondents or 22.7%.

Employed status; out of the total of 385 respondents, the majority had a part-time with a total of 88 and a percentage of 22.6%. This was followed by those with unemployed, with a total of 87 respondents and a percentage of 20.8%, those with not in the labor force, with a total of 72 and a percentage of 18.7%, with self-employed a total of 70 and a percentage of 18.2%. The remaining respondents had full-time, with a total of 68 and a percentage of 17.7%.

Income; out of the total of 385 respondents, the majority had a 25000$ - 49,999$ with a total of 91 and a percentage of 23.6%. This was followed by those with >100000$, a total of 89 respondents and a percentage of 23.1%, those with 75000$ - 99999$ and Less than 25000$, with both total of 72 and a percentage of 18.7%. The remaining respondents had 50000$ - 74000$, with a total of 61 and a percentage of 15.8%.

Marital status; out of the total of 385 respondents, the highest number of individuals are preferred not to say, constituting 85 respondents which accounts for 22.1% of the total sample. Following them are the singles with a number of 82 respondents, representing 21.3% of the sample. Windowed 81 respondents of 21%, divorced 77 respondents of 20%. Only 60 respondents, which make up 15.6% of the sample, have reported being married.

Table 4

Table 4 Frequency and Percentage of Demographic Information		
Age	**Frequency**	**Percent**
18-24	78	20.3
25-34	83*	21.6
35-44	71	18.4
45-54	79	20.5
55 and above	74	19.2
Total	**385**	**100.0**
Gender		
Male	133	34.5
Female	136*	35.3
Non-binary	116	30.1
Total	**385**	**100.0**
Education		
High school diploma or equivalent	74	19.2
Associate's degree	80	20.8
Bachelor's degree	77	20.0
Master's degree	70	18.2
Doctoral degree	84*	21.8
Total	**385**	**100.0**
Employed Status		
Full-time	68	17.7
Part-time	88*	22.9
Self-employed	70	18.2
Unemployed	87	22.6
Not in the labor force	72	18.7
Total	**385**	**100.0**
Income		
Less than 25000$	72	18.7
25000$ - 49,999$	91*	23.6
50000$ - 74000$	61	15.8
75000$ - 99999$	72	18.7
>100000$	89	23.1
Total	**385**	**100.0**
Marital Status		
Single	82	21.3
Married	60	15.6
Divorced	77	20.0
Widowed	81	21.0
Prefer not to say	85*	22.1

| Total | 385 | 100.0 |

Note * highest respondents

4.3. DESCRIPTIVE ANALYSIS WITH MEAN AND STANDARD DEVIATION

The three items of customer satisfaction in Table 5 with the highest mean score was "*(CS3) Overall, I am satisfied with this online experience.*" with a mean score of 4.535. For standard deviation, it was "*(CS2) It is possible for me to buy the product from an online retailer.*" with S.D. of 1.048.

The three items of trust in Table 5 with the highest mean score was "*(T3) The online retailer of home product websites builds commitment in customers.*" with a mean score of 4.047. For standard deviation, it was "*(T1) I believe the online retailer of home product website is trustworthy.*" with S.D. of 1.106.

The three items of security in Table 5 with the highest mean score was "*(S3) In general, making payments on the online retailer of home product website is accurate and quick.*" with a mean score of 4.299. For standard deviation, it was "*(S2) In general, making payments on the online retailer of home product website is secure.*" with S.D. of 1.471.

The four items of information quality in Table 5 with the highest mean score was "*(IQ4) The home product website presents information that is easy to understand.*" with a mean score of 4.197. For standard deviation, it was "*(IQ1) The information on the home product website facilitates buying the products or services that it sells or markets.*" with S.D. of 1.206.

The five items of web design in Table 5 with the highest mean score was "*(WD2) The user interface of the online retailer has a well-organized appearance for their developed home products websites.*" with a mean score of 4.129. For standard deviation, it was "*(WD1) The online retailer is visually appealing for their developed home products websites.*" with S.D. of 1.241.

The three items of responsiveness in Table 5 with the highest mean score was "*(R1) - I think the online retailer of home product website gives prompt service.*" with a mean score of 3.940. For standard deviation, it was "*(R3) I believe the online retailer of home product website is never too busy to respond to customer requests.*" with S.D. of 1.128.

Table 5

Table 5 Mean and Standard Deviation of each variable		
Customer Satisfaction (CS)	**Mean**	**Std. Deviation**
CS1 - The online retailer's information content meets my needs.	4.473	0.898
CS2 - It is possible for me to buy the product from an online retailer.	4.055	1.048*
CS3 - Overall, I am satisfied with this online experience.	4.535*	0.863
Trust (T)		
T1 - I believe the online retailer of home product website is trustworthy.	3.740	1.106*
T2 - The online retailer of home product website instills confidence in customers.	3.899	1.027
T3 - The online retailer of home product websites builds commitment in customers.	4.047*	0.931
Security (S)		

S1 - Using a credit card to make purchases on the online retailer of home product website is safe.	3.413	1.421
S2 - In general, making payments on the online retailer of home product website is secure.	3.358	1.471*
S3 - In general, making payments on the online retailer of home product website is accurate and quick.	4.299*	0.888
Information Quality (IQ)		
IQ1 - The information on the home product website facilitates buying the products or services that it sells or markets.	3.821	1.206*
IQ2 - The home product website provides the relevant products/services information.	3.795	1.126
IQ3 - It is easy to complete the transaction on the home product website.	3.842	1.035
IQ4 - The home product website presents information that is easy to understand.	4.197*	1.022
Web Design (WD)		
WD1 - The online retailer is visually appealing for their developed home products websites.	3.317	1.241*
WD2 - The user interface of the online retailer has a well-organized appearance for their developed home products websites.	4.192*	0.886
WD3 - The online retailer is reliable for their developed home products websites.	3.951	1.078
WD4 - The online retailer is convenient to access for their developed home products websites.	3.688	1.052
WD5 - The online retailer is easy to use for their developed home products websites.	3.769	1.039
Responsiveness (R)		
R1 - I think the online retailer of home product website gives prompt service.	3.940*	0.921
R2 - I believe the online retailer of home product website is always willing to help customers.	3.852	1.064
R3 - I believe the online retailer of home product website is never too busy to respond to customer requests.	3.787	1.128*

Note * highest mean score and S.D.

4.4. HYPOTHESIS TESTING RESULTS

For this research, it consists of four parts of hypothesis testing which is as follows;

B	=	The unstandardized beta
β	=	The standardized beta; Beta or β
t	=	The *t test statistic*
Sig.	=	ρ-value
VIF	=	Variance Inflation Factor

The variance inflation factor (VIF) has been used to determine the amount of multicollinearity in a series of multiple regression. As according to Team (2022), variance inflation factor is a value that reflects the mutual influence of predictors in the linear model. According to Akinwande et al. (2015), the variance inflation factor

value would be better to be less than or equal to 5. R-square value uses to measures the performance resulting mathematical model whether it is consistent with the data.

Multiple linear regression was employed in this research framework to estimate the influence of web design, information quality, security, responsiveness, trust, on customer satisfaction regarding to e-Commerce websites of home products users. The information of the results is shown in Table 6.

Table 6 is shown the summary of multiple linear regression which used to analysis affecting of e-Commerce websites on customer satisfaction: a case study of home products users with web design (H_1), information quality (H_2), security (H_3), responsiveness (H_4), and trust (H_5) on customer satisfaction. R-square was 0.238 or 23.8%. VIFs of H_1, H_2, H_3, H_4, and H_5 were lower than 5 which means there was no multicollinearity problem. There are significant influence of web design (H_1, p < 0.000), security (H_3, p < 0.000), responsiveness (H_4, p < 0.000), and trust (H_5, p = 0.025) on customer satisfaction in e-Commerce websites of home products users as all p-value less than 0.05. Meanwhile, information quality (H_2, p > 0.224) presented non-significant on customer satisfaction in e-Commerce websites of home products users, since p-value greater than 0.05.

Table 6

Table 6 Summary of Multiple Linear Regression Analysis for Hypothesis 1,2,3,4, and 5							
Hypotheses	Variables	B	β	t >1.96	p	VIF	Result
H_1	Web Design	0.345	0.304	4.430	0.000*	2.345	Supported
H_2	Information Quality	0.061	0.064	1.219	0.224	1.384	Not supported
H_3	Security	0.140	0.186	4.008	0.000*	1.069	Supported
H_4	Responsiveness	0.342	0.381	5.063	0.000*	2.820	Supported
H_5	Trust	0.164	0.175	2.243	0.025*	3.034	Supported

Note. R^2 = 0.238, Adjusted R^2 = 0.228, *p < .05, Dependent Variable = Customer Satisfaction
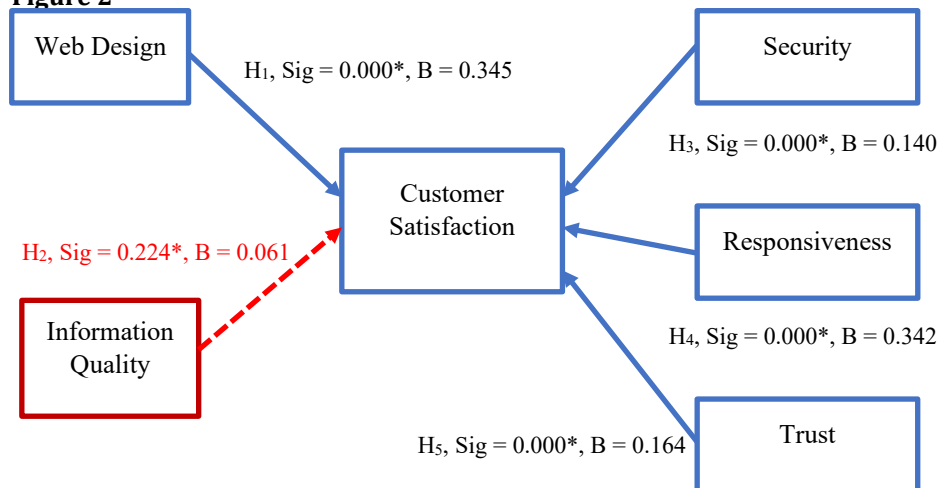
Figure 2

Figure 2 Results of the Research Model
Source. Constructed by authors.

5. DISCUSSIONS AND CONCLUSIONS

The findings of this study indicate that there are four significant factors that affect customer satisfaction, namely web design, security, responsiveness, and trust. However, one factor, namely information quality, has been found to insignificantly affected customer satisfaction. Detail will be discussion below.

5.1. H1; WEB DESIGN AND CUSTOMER SATISFACTION

There was a significant affecting of web design on customer satisfaction in e-commerce settings as a p-value less than 0.5. This finding aligned with the study by Kidane and Sharma (2016). The e-Commerce website of home product users has a well-organized appearance for their developed home products websites. Also, the e-Commerce website of home product users is reliable for their developed home product websites. To improve web design, it suggests that the e-Commerce website of home product users should improve the visually appealing web design to make customers more interactive appearance.

5.2. H3; SECURITY AND CUSTOMER SATISFACTION

This study found a significant effect of security on customer satisfaction in e-commerce settings with a p-value less than 0.5. This finding aligned with the study by Zhang and Nuangjamnong (2022). The e-Commerce website of home product users makes payments for products on their website accurately and quickly. To improve the security of the e-Commerce website of home product users suggests that secure transactions should be the primary concern priority.

5.3. H4; RESPONSIVENESS AND CUSTOMER SATISFACTION

This study found a significant affecting of responsiveness on customer satisfaction in e-commerce settings as a p-value less than 0.5. This finding aligns with previous research by Sigala et al. (2006), in which responsiveness positively affects customer satisfaction. The e-Commerce website of home product users gives prompt services and is willing to help customers. To responsiveness of the e-Commerce website of home product users, it is recommended that the customer service content page needs more channels to reach the customer requirement.

5.4. H5; TRUST AND CUSTOMER SATISFACTION

This study found a significant affecting of trust on customer satisfaction in e-commerce settings as a p-value less than 0.5. This finding aligns with previous research by Parker and Mathews (2001). Home product users' e-Commerce website builds customer commitment and instills confidence in customers. Meanwhile, to trust the e-Commerce website of home product users, it is recommended that the e-Commerce website needs more effort to develop the contents of home products to be accurate information and trustworthy for their customers.

5.5. H2; INFORMATION QUALITY AND CUSTOMER SATISFACTION

This study found an insignificant affecting of information quality on customer satisfaction in e-commerce settings as a p-value greater than 0.5.

5.6. CONCLUSION OF FINDING

The findings from the multiple linear regression analysis demonstrate the relative importance of various factors that affect customer satisfaction in Table 7. It is evident that web design, security, responsiveness and trust are the most crucial determinant of customer satisfaction.

Table 7

Table 7 Summary Results from the Hypotheses Testing			
Hypotheses	**Significant Value**	**Standardized Coefficient**	**Result**
$H1_0$: Web design has no a significant positive effect on customer satisfaction in e-commerce settings	0.000*	0.304	Supported
$H2_0$: Information quality has no a significant positive effect on customer satisfaction in e-commerce settings.	0.224	0.064	Not Supported
$H3_0$: Security has no a significant positive effect on customer satisfaction in e-commerce settings.	0.000*	0.186	Supported
$H4_0$: Responsiveness has no a significant positive effect on customer satisfaction in e-commerce settings.	0.000*	0.381	Supported
$H5_0$: Trust has no a significant positive effect on customer satisfaction in e-commerce settings.	0.025*	0.175	Supported

Note: *P-value <0.05

The ranking of the results from the hypothesis testing is presented in the table 8 below for summary. Table 8 displays the independent variables that affect customer satisfaction, ranked from the most to the least significant influence. The research findings indicate that responsiveness has the most substantial correlation with customer satisfaction, with a coefficient of 0.381. Web design is the second most influential factor, with a coefficient of 0.304, followed by security at 0.186 and trust at 0.175. On the other hand, information quality has no affected on customer satisfaction.

Table 8

Table 8 Strong Points of Factor Influencing Customer Satisfaction		
Rank	**Independent Variable**	**Beta**
1st	Responsiveness	0.381
2nd	Web design	0.304
3rd	Security	0.186
4th	Trust	0.175

6. RECOMMENDATIONS

According to the findings of this study, "*responsiveness*" given at the top rank has a substantial impact on the level of customer satisfaction in e-commerce contexts that involve consumers of home products. When attention was focused on the questionnaire, it was discovered that the item with the lowest mean score was the one that stated, "*I believe the online retailer of home product website is never too*

busy to respond to customer requests." When it comes to response, the consumer needs more attention from the customer care department of the e-commerce website.

According to the results of this research, "*web design*" comes in at the number two spot. When looking more closely at the questionnaire, it was discovered that the item with the lowest mean score was the one that asked *if the online retailer had developed home product websites that were visually appealing.* In terms of web design, it is recommended that web developers of e-commerce websites for home products should construct websites that present the product in a more appealing manner. This could include photographs of home items, layouts of contents, detail, price, and so on.

According to the results of this research, "*security*" comes in third place. When focusing on the questionnaire, it was discovered that the item with the lowest mean score was the one that stated "*Generally speaking, making payments on the online retailer of home product website is secure.*" It was recommended that web developers of e-commerce websites for home products should design the security of e-commerce, cybersecurity, and e-payment transaction in order to instill confidence in customers so that they will shop for home items on e-commerce websites.

Last but not least, "*trust*" came in at number four on the list of findings from this survey. When we focused on the questionnaire, we discovered that the item "*I believe the online retailer of home product website is trustworthy*" had the lowest mean score. This was discovered when we focused on the questionnaire. E-commerce of house products has to establish a website or platform for home products that are more confident and guarantees the quality of service, quality products, and reliable service throughout each stage of the purchasing process, whether it takes place online or offline. This is necessary in order to build trust.

7. FURTHER STUDIES

Within the context of e-Commerce Websites in Thailand, the current study studied how factors such as website design, information quality, security, timeliness, and trust all play a role in consumer satisfaction and how customer satisfaction influences other factors. In further studies, it may be possible to investigate the impact that the type of device used, such as a mobile phone as opposed to a desktop computer, has on the website design and the level of customer satisfaction. In addition, it would be beneficial to investigate the significance of well-known online retail platforms in the Thai environment, such as HomePro, IKEA, DoHome, and others like them. In conclusion, the researchers could explore the association between demographic features and consumer satisfaction in various countries.

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