

# THE IMPACT OF TRUST AND PERCEIVED RISK ON CONSUMER DECISION MAKING IN CHOOSING A DENTAL SERVICE VIA ONLINE CHANNELS

BY

#### MISS SALLPACHUDA CHAICHAROEN

AN INDEPENDENT STUDY SUBMITTED IN PARTIAL
FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE PROGRAM IN MARKETING
(INTERNATIONAL PROGRAM)
FACULTY OF COMMERCE AND ACCOUNTANCY
THAMMASAT UNIVERSITY
ACADEMIC YEAR 2015
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## THAMMASAT UNIVERSITY FACULTY OF COMMERCE AND ACCOUNTANCY

#### INDEPENDENT STUDY

BY

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#### **ENTITLED**

THE IMPACT OF TRUST AND PERCEIVED RISK ON CONSUMER DECISION MAKING IN CHOOSING A DENTAL SERVICE VIA ONLINE CHANNELS

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#### **ABSTRACT**

When customers are searching for new dental service providers, what do they expect and perceive about the information on the internet? How does perceived risk and trust influence their selection process and choice of a new dental service provider? This study develops a structural model to understand the relationship and influence between perceived risk, trust, and purchase intention. The attributes of an online information channel are investigated to find the impact on trust and purchase intention to help dental service providers and marketers promote their practice more efficiently on the internet. To test the hypothesis and the proposed structural model, a survey of 214 new registered patients in dental clinics and private hospitals in Bangkok, who chose their new provider based on the online channel was conducted. The results show that, trust has an adverse impact on perceived risks while both trust and perceived risk have a positive effect on a purchase decision. The finding also indicates that, an informative website has strong effects on consumers' trust and purchase intention. Finally, the managerial recommendation and future research directions are provided

**Keywords**: Perceived risk, Trust, Purchase intention, Dentist, Online channel, Consumer decision making, Service marketing

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## CHAPTER 1 INTRODUCTION

#### **INTRODUCTION**

In Thailand, dental service providers have grown much rapidly over the past few years. The statistics for 2015 shows that there are more than 4,000 dental service providers in Thailand (*Total private hospitals in 2014*, 2015), which results in increased competition among providers. Along with the trend of the internet, a study in Taiwan shows that, more than 50% of the population use the internet to find information about dental care (Chiang, Shiau, Wang, & Huang, 2007). Dental service providers tend to use more digital marketing. Consequently, the online channel has been increasingly used as a communication tool. The study was stimulated by questions regarding the factors leading to a trust of the dental service provider. A model will be developed to describe which factors on the internet-based channel influence trust and lead to reduced or perceived risk, and finally on decision-making intention. The result would be of interest to managerial decision makers, especially those developing the most effective marketing strategy on the internet-based platform.

#### PROBLEM STATEMENT

A previous study conducted by (Coleman, Warren, & Huston, 1996) regarding perceived risk and information search in the selection of a new dentist, investigated the relationship between consequence of perceived risk before selecting dentist and the process of information search to reduce risk. This study however focuses on various sources of information, but is lacking in terms on online information search.

Hence, the current study will concentrate on the impact of pre-decision perceived risk on consumer decision making, antecedents of trust in terms of content, and factors on online information sources that have a direct effect on trust, perceived risk, and purchase intention.

#### PURPOSE OF THE STUDY

This study is a contemporary topic in applied marketing related to health issue. The objectives are:

- 1. To help dental service providers understand consumer expectations and perception of information on the internet channel.
- 2. To find a factors' degree of impact on perceived risks in choosing dental service via online channels
- 3.1. To identify factors of online channels that impact on pre-transaction trust in choosing dental service via online channels.
- 3.2. To find factors' degree of impact on pre-transaction trust in choosing dental service via online channels
- 4. To identify the decision criteria of consumers in choosing the dental service provider via online channels and recommend possible marketing strategies.

#### **CHAPTER 2**

#### **REVIEW OF LITERATURE**

Dental service is considered a high involvement service. Consumers will face some degree of perceived risk (V-W. Mitchell, 1992) due to uncertainty and adverse consequence that will impact the consumer decision-making process. This risk perception has occurred through cognitive evaluation. There are six types of risks, including, social, financial, physical, performance, time, and psychological risk.

- 1. Perceived social risk is concerned with individuals' perception of other people regarding the selection of the service provider.
- 2. Perceived financial risk or economic risk is related to the possibility of monetary loss or not attaining the best possible monetary gain.
- 3. Perceived physical risk is the possibility that performance of service will result in harm to one's health.
- 4. Perceived performance risk is concerned with the fact that, the service will not be completed, thus leading to customer dissatisfaction.
- 5. Perceived time risk is the possibility that individuals will waste time, lose convenience or waste effort getting a service redone.
- 6. Perceived psychological risk is concerned that the service will have negative effect on the individual's mental stress, peace of mind or self-perception.

From a previous study, (Ashford, Cuthbert, & Shani, 1999) found that social and psychological risks are associated with health services.

Pre-purchase risk reduction focuses on increasing certainty and reducing the negative impact of adverse consequences. Information search is considered as one of the methods to relieve the risk (Mitra, Reiss, & Capella, 1999). A previous study on the pre-purchase information of those seeking professional services (Freiden & Goldsmith, 1989) shows that, approximately 80% of consumers use only one to two sources of information, and half of them believe that health care service are easy to replace. Evoked set of service is tiny, the average is about 1.66 to 2 (Turley & LeBlanc, 1993) because services are hard to evaluate, so consumers use only relatively small evaluation criteria about three features and eliminate most of the

choices early in the decision process. Attributes that have a major effect on decision making when choosing doctors, include, the source of information, price, payment method, years in practice, and location (Ettenson & Turner, 1997).

Trust is recognized as an essential component and critical factor in every business transaction (Brian J. Corbitt, Theerasak Thanasankit, & Yi, 2003). It can be defined as a relationship between a trustor, the individual that trusts an entity, and a trustee, the entity that is trusted (Grandison & Sloman, 2000). Many researchers have described trust as a complex subjective belief, the willingness of individuals to rely on other parties. When trust is formed, it allows the trustee to use the resources of trustor or influence the decision to choose a service provided by the trustee (Grandison & Sloman, 2000), (Dan J. Kim, Donald L. Ferrin, & Rao, 2008). Trust has been recognized as having a negative impact on perceived risk and direct positive effect on consumer purchase intention (Dan J. Kim et al., 2008), (D'Alessandro, Girardi, & Tiangsoongnern, 2012).

Traditionally, consumers prefer to use a personal independent source of information when choosing a health care service (Freiden & Goldsmith, 1989), (Hesse et al., 2005), (Mortimer & Pressey, 2013). However, recently, consumers use more of internet to search for health related information and health care providers (Hesse et al., 2005). Factors that relate to trust are competency and quality of information provision, and interactive communication. Moreover, the credibility is enhanced by a physician's information and experience, while corporate reputation is based on the impression of website claims and images. Consumers also desire targeted health information about their particular health condition, and an easily navigable website (Gallant, Irizarry, & Kreps, 2006). A previous study about key dimensions of B2C websites also confirm that consumers weight essential to time use in navigating the website and information content are good predictors towards purchase intention (Ranganathan & Ganapathy, 2002).

Previous studies in this area largely conclude that, risk perception dimension of high involvement services like health care and dental care is different from other products or other types of services. Trust is also viewed as having a negative effect on perception and having a direct influence on purchase intention. Several sources of trust for service provider and e-commerce have been identified in previous studies.

However, there is no research on the antecedents of trust for dental service providers, based on online marketing channel.



#### **CHAPTER 3**

#### RESEARCH METHODOLOGY

#### **HYPOTHESIS**

This study focuses on pre-decision risks considered when choosing a new dental service provider, and its impact on consumer decision-making. Also, the study investigates how the features of individual websites affects trust and purchase intention

Perceived risk: Indicators for hypothesis 1 are

(a) Social risk, (b) Financial risk, (c) Physical risk, (d) Performance risk, (e) Time risk, (f) Psychological risk

**Hypothesis 1:** There are certain types of risks that consumers can perceive before deciding to select a new dental service provider.

H1a: Consumers will perceive social risks before deciding to select a new dental service provider.

H1b: Consumers will perceive financial risks before deciding to select a new dental service provider.

H1c: Consumers will perceive physical risks before deciding to select a new dental service provider.

H1d: Consumers will perceive performance risks before deciding to select a new dental service provider.

H1e: Consumers will perceive time risks before deciding to select a new dental service provider.

H1f: Consumers will perceive psychological risks before deciding to select a new dental service provider.

**Hypothesis 2:** Perceived risk negatively affects consumer's decision-making

Trust and its antecedents: Indicators for hypothesis 3 are:

(a) Web design, (b) Price details, (c) Treatment procedure detail, (d) Dentist information and expertise, (e) Location, (f) physical environment, (g) Contact channel/Easy to contact, and (h) Reviews.

**Hypothesis 3:** Each of the following attributes has positively affected the trust of the dental service provider.

H3a: Website design appearance positively affects the trust of the dental service provider.

H3b: Completed price details positively affects the trust of the dental service provider.

H3c: Completed treatment procedure detail positively affects the trust of the dental service provider.

H3d: Dentist information and expertise positively affects the trust in the dental service provider.

H3e: Convenience of location positively affects the trust in the dental service provider.

H3f: Picture of physical environment positively affects the trust in the dental service provider.

H3g: Contact channel positively affects the trust in the dental service provider.

H3h: Customer reviews positively affects the trust in the dental service provider.

**Hypothesis 4:** Trust in the dental service provider has negative effects on perceived risk.

**Hypothesis 5:** Trust in the dental service provider has positive effects on purchase intention.

Purchase and intention to purchase

Indicators for hypothesis 6 are:

(a) Web design, (b) Price details, (c) Treatment procedure detail, (d) Dentist information and expertise, (e) Location, (f) physical environment, (g) Contact channel/Easy to contact, and (h) Reviews

**Hypothesis 6:** Each content attributes has positive effect on purchase intention.

H6a: Web design appearance has a positive effect on purchase intention.

H6b: Completed price details have positive effects on purchase intention.

H6c: Completed treatment procedure details have a positive effect on purchase intention.

H6d: Dentist information and expertise has a positive effect on purchase intention.

H6e: Convenience of location has a positive effect on purchase intention.

H6f: Picture of physical environment has a positive effect on purchase intention.

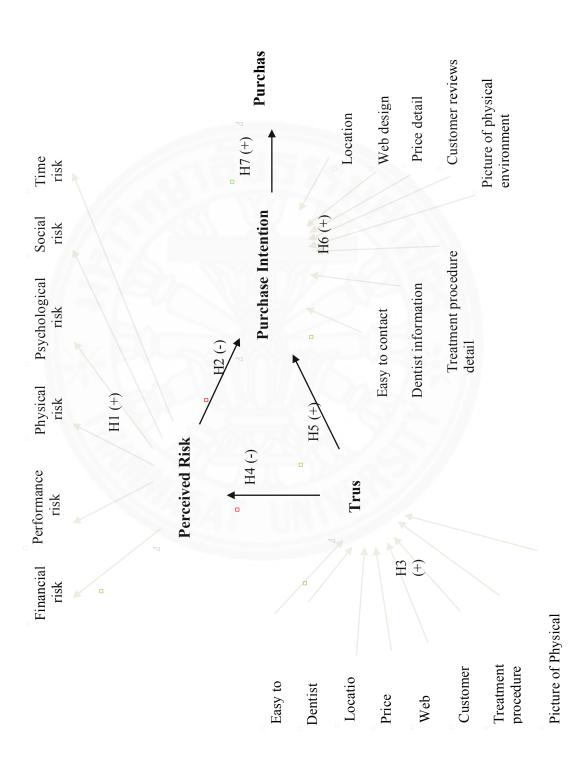
H6g: Contact channel has a positive effect on purchase intention.

H6h: Customer reviews have a positive effect on purchase intention.

**Hypothesis 7:** Consumer's intention to choose a dental service provider from online channel positively affects the purchase decision.

#### PROPOSED MODEL

Figure 1: Proposed model



#### **SAMPLING PLAN**

The sample size was 200 participants, according to a guideline recommended by (Marcoulides & Saunders, 2006) to achieve a significant level of 5%, a statistical power of 80% and R<sup>2</sup> value of at least 0.25. The research participants were chosen from new patients registered within the last three months and newly registered patients at a dental clinic and dental department in a private hospital in Bangkok, using a convenience random sampling technique. The participants included only Thai citizens or patients with permanent residence in Thailand, both male and female aged above 18 years old, to avoid the need to obtain informed consent from parents or guardians, as regard patients below the age of 18 years. The subjects need to pass a screening question related to choosing the dental service provider from the Internet-based channel.

#### **INSTRUMENTATION**

Four in-depth interviews were conducted to gather qualitative data, to verify the variables and indicators needed to study the proposed model, and to develop questionnaire items of the study. Each in-depth interview with newly registered patients who visit the dental clinic in Bangkok was conducted using guidelines consisting of open ended questions about search and decision making process for choosing a dental service provider, the factors related to the perceived risk in choosing dental service provider from the online channel, and the factors on the internet based channel that can increase their trust in a dental service provider.

A self-administered questionnaire (Appendix 1 : Questionnaire) was used to obtain the data. Five pilot tests were conducted to ensure clarity and feasibility of the questionnaire. From the proposed structural equation model, the inner model consisted of two independent latent variables, trust and perceived risk and one dependent latent variable that is purchase intention. The outer model consisted of two exogenous variables, trust and purchase intention, with eight indicators and two endogenous latent variables that are perceived risks, with six indicators and purchase intention with one indicator.

Each hypothesis was measured by the following question, using 5 point Likert-scale from (1) strongly disagree, (2) disagree, (3) neither agree or disagree, (4)

agree, and (5) strongly agree. Some of the questions are modified from (Coe & Qian, 2013) and (Coleman, Warren, & Huston, 1996).

Table 1: Questions for indicator variables

Perceived risk (RISK)	
risk_social	If the dental service is not performed properly from a new dental service provider, I will feel embarrassed.
risk_financial	If the dental service is not performed properly from a new dental service provider, I will loss my money.
risk_physical	If the dental service is not performed properly from a new dental service provider, I will have pain or physical discomfort.
risk_performance	If the dental service is not performed properly from a new dental service provider, it will harm to my health and safety.
risk_time	If the dental service is not performed properly from a new dental service provider, I will waste my time.
risk_psychological	If the dental service is not performed properly from a new dental service provider, it will harm my appearance.

Trust (TRUST): Attribute on online channel		
trust_web design	Web design can increase my confidence in choosing a new dental service provider.	
trust_price detail	Price details can increase my confidence in choosing a new dental service provider.	
trust_treatment detail	Treatment procedure details can increase my confidence in choosing a new dental service provider.	
trust_dentist information	Dentist information and expertise can increase my confidence in choosing a new dental service provider.	
trust_environment	Picture of physical environment can increase my confidence in choosing a new dental service provider.	
trust_location	Location can increase my confidence in choosing a new dental service provider.	
trust_contact	Contact information and contact options can increase my confidence in choosing a new dental service provider.	

trust_review	Customer reviews can increase my confidence in choosing a new dental service provider.		
	Purchase Intention (INTENTION)		
intention_web design can influence my intention to choose a new denta service provider.			
intention_price detail	Price details can influence my intention to choose a new dental service provider.		
intention_treatme nt detail	Treatment procedure details influences my intention to choose a new dental service provider.		
intention_dentist information	Dentist information and expertise influences my intention to choose a new dental service provider.		
intention_environ ment			
intention_location	Location influences my intention to choose a new dental service provider.		
intention_contact	Contact information and contact options influence my intention to choose a new dental service provider.		
intention_review	Customer reviews influence my intention to choose a new dental service provider.		
Purchase (PURCHASE)			
purchase	I will definitely go to this dental service provider.		

The screening question was asked at the beginning of the questionnaire to ensure that participants have chosen a dental service provider from the online channel. "Have you ever chosen a new dental service provider from the online channel within the last three months?"

The socio-demographic data, namely, age, gender, and monthly income and dental treatment data was collected at the last section of questionnaire.

Table 2: Socio-demographic data question

	Age
Socio- demography	Gender
uomogrupny	Monthly income

Table 3: Dental treatment data question

	Cleaning
	Filling
Dental treatment	Extraction
	Root canal treatment
	Prosthesis
	Dental implant
	Orthodontic
	Teeth whitening

The questionnaire consisted of two parts. The first part relates to the measurement of trust, perceived risk, and purchase intention. The second part concerns satisfaction and re-visit intention. Newly registered patients were first asked to complete the initial part of a self-administered questionnaire via the internet or paper-based, before dental treatment. At the completion of their treatments, they were asked to complete the second part of the questionnaire. For new patients registered within the last three months, a link to the online self-administered questionnaire was sent via e-mail. After one to two weeks, a follow-up reminder e-mail and a new link to the questionnaire was sent to those who did not complete the questionnaire.

The questionnaire included a cover letter (Appendix 2: Cover letter) explaining the purpose of the study, rights to voluntarily participate in the study, potential benefits and risks of taking part in the study, and contact details of the researcher.

#### **DATA ANALYSIS PLAN**

The data from the questionnaire was evaluated and checked for completeness before data analysis, to help ensure more accuracy in the data before transferring it into Statistical Package for the Social Science (SPSS) and SmartPLS program.

The Statistical Package for the Social Science (SPSS) was used to analyze socio-demographic data and dental treatment procedure using frequency and percentage statistic. The degree, correlation and significant impact of perceived risk, the effect of online attributes on trust and purchase intention, re-visit intention, and satisfaction will be analyzed using ANOVA and correlation statistic.

In this research the structural equation model (SEM) had a mix of formative and reflective constructs. The formative measures of the study were trust and purchase intention, because these measures represented a cause of trust in dental service providers and intention to buy. Reflexive measurement included perceived risk and purchase, as this measurement reflect the nature of risk and purchase intention.

SmartPLS was used as a tool to test the proposed model, construct path model, and data analysis, for both measurement was performed by using Partial Least Square (PLS), given that this technique is suitable, when: the sample size is small, predictive accuracy is paramount, and correct model specification cannot be ensured (Wong, 2013). This second generation data analysis, PLS is a powerful method because it is not only used for theory confirmation but also for suggesting the relationship that might or might not exist.

In formative measurement model, the problem of indicator collinearity may occur if the indicators are highly correlated. To assess multicollinearity problem, the latent variable score was used as input for multiple regression analysis in SPSS to calculate the tolerance and Variance Inflation Factor value. The exogenous latent variables (predictor) input as an independent variable, whereas another latent variable is configured as the dependent variable. VIF should be 5 or lower to avoid the collinearity problem.

#### LIMITATIONS OF THE STUDY

The first limitation of this study is the sampling technique. Using convenience random sampling makes this research lack generality. The overall small sample size could contribute to low sampling error. To test the validity of this research finding, the study should be undertaken with a larger sample size and/or use probability sampling technique. The second limitation is the measurement of trust, since items used for measuring trust are derived from an in-depth interview, and only the factors that consumer repeated the most are chosen. In different circumstances or settings, factors that contribute to trust could be different.



#### **CHAPTER 4**

#### **RESULTS AND DISCUSSION**

#### IN-DEPTH INTERVIEW KEY FINDING

There were four interviewees, two males and two females, age between 24 to 67 years old. All are Thai citizens or have permanent residence in Thailand.

The interview revealed some common trends while searching for a new dental service provider. Nearly all the participants began with location search, in terms of proximity to their residence, office or ease of commuting. The next step was not in the same order, but the attributes of an online channel that they used to make a decision were quite similar. Treatment procedure details, price details, customer review and web design were common attributes that were being mentioned as important factors that influence their decision.

"I look for information about the treatment procedure that I needed. I want the complete information that I could understand by myself; I do not like the website that say "please contact for more information" because I do not like to telephone to ask for more information. If I found such website, I will switch and look for a new one."

Thai male, 24-year-old

"I like the website that is easy to navigate, clean, and feel sophisticated"

Thai female, 32-year-old

"After finding 2-3 service providers, then I will look for price detail. I like the website that provides all the price details related to the treatment procedure, I choose the one with reasonable price."

Thai male, 56-year-old

"I will look for how to communicate with the clinic. I finally choose the dental clinic that has the easiest way to contact and the quickest response such as email or Line"

Thai male, 67-year-old

#### **DATA ANALYSIS**

#### RESPONDENT PROFILE

The total respondents were 214 with 65 percent female, and 35 percent male. The age group was between 21 to 65 years old, while the average age was 33 years, with a standard deviation of 7.4. For the most part, the respondents earn a monthly income of between 20,000 to 35,000 Baht (55.6 percent).

Most respondents were searching for a new dental provider to have tooth extraction or dental surgery (40 percent), followed by cleaning (19.2 percent), and dental filling (17.8 percent). Most respondents visited the dentist only when they had a dental problem (41.1 percent) or regularly visited the dentist more than once a year (28.5 percent), and visited the dentist every year (23.4 percent).

#### PERCEIVED RISK

The survey on the 6 types of perceived risks in choosing a new dental service provider revealed that, 53 percent of customers perceived financial risk, followed by physical and time risk as shown in Table 4. However, the highest degree of perceived risk that customers were concerned about was physical risk, followed by financial risk, time risk, and psychological risk. The least concerned was social and performance risk as shown in Figure 2. All 6 types of perceived risk and overall perceived risk are of a moderate score (3.45).

The result of ANOVA analysis indicated that, there are no significant differences (p=0.108 at 95% confident interval) between risks that customers perceive when they are choosing a new dental service provider as shown in Table 5.

The factor analysis also confirmed that, consumers do not have different perception risk between the various dimensions of perceived risk. There was only one factor component that can be extracted which consist of all 6 types of perceived risk.

Figure 2: Average score on perceived risk from choosing new dental service provider (n=214)

### Average score on perceived risk from choosing new dental service provider

(5-point scale) 5 = High loss, 1 = low loss

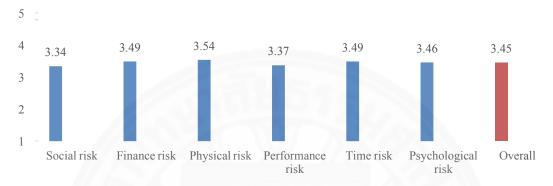


Table 4: Mean and Standard deviation of perceived risk (n=214)

Perceived Risk	Mean	Standard Deviation	Top two box (%)
1. Social risk	3.34	1.088	47.6%
2. Finance risk	3.49	1.139	53.0%
3. Physical risk	3.54	1.137	52.8%
4. Performance risk	3.37	1.195	46.7%
5. Time risk	3.49	1.121	52.3%
6. Psychological risk	3.46	1.153	48.2%
Total	3.45	0.83	

Table 5: ANOVA table for perceived risk

#### **ANOVA**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	22.130	4	5.532	1.901	.108
Within Groups	3722.870	1279	2.911		
Total	3745.000	1283			

The level of each perceived risk and overall perceived risk do not show any significant differences between different chief complaint of the treatment needed as shown in Appendix 3.

There are no significant differences in levels of perceived risks and gender, age (below 30 years old and 30 years old and over), and monthly income level (20,000 to 35,000 THB and over 35,001 THB) (T-test, 0.05 significant level) as in Appendix 4 to 6.

The results showed that there is a positive correlation (Pearson correlation = 0.179) between the level of perceived risk and the effect of website attributes on trust (p = 0.02 at 0.05 significance level). There is also a positive correlation (Pearson correlation = 0.204) between the level of perceived risk and influence of online attributes on consumer decision (p = 0.008 at 0.01 significant level) as in Appendix 7.

#### **TRUST**

A study of the web features which determines the level of customers' trust when choosing a new dental service provider showed that, 67.2 percent of customers agree that dentist information and expertise can increase their confidence. Moreover, dentist information and expertise and web design had the highest impact on customers' confidence, followed by price detail, contact information and ease of contact. The least important attribute was location. The overall effect of the 8 attributes to increase customers' trust was moderate (3.73) as shown in Figure 3.

Figure 3: Average score on online channel attributes that have influence on trust when choosing a new dental service provider (n=214)

## Average score on online channel attributes that have influence on trust when choosing a new dental service provider (5-point scale)

5 = High trust, 1 = low trust

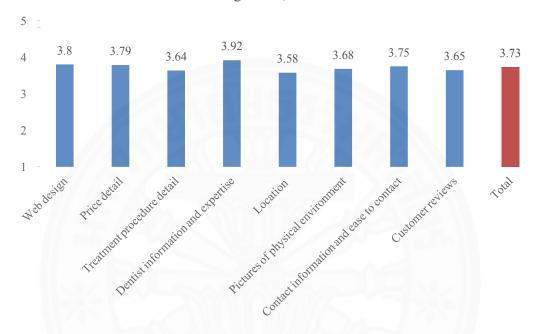


Table 6: Mean and Standard deviation of online attributes affect on customer trust (n=214)

Trust (Online attributes)	Mean	Standard	Top two box
Trust (Online attributes)	Mean	Deviation	(%)
1. Web design	3.80	0.85	60.7
2. Price detail	3.79	0.99	64.5
3. Treatment procedure detail	3.64	1.099	62.2
4. Dentist information and expertise	3.92	1.027	67.2
5. Location	3.58	1.147	57.5
6. Pictures of physical environment	3.68	1.083	57.8
7. Contact information and ease to contact	3.75	0.98	61.2
8. Customer reviews	3.65	1.026	53.2
Total	3.73	0.565	

The result of ANOVA analysis reveals that, there is some significant difference (p=0.018 at 95% confident interval) between each online attribute that affects customers' trust when choosing the new dental service provider. As shown in Table 8, the post hoc analysis reveals that, the location of the dental service provider has the least significant effect on customers' trust, compared to dentist information and expertise.

Table 7: ANOVA table on the relationship between web features and customer trust

#### **ANOVA**

Trust

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	17.918	7	2.560	2.419	.018
Within Groups	1802.073	1703	1.058		
Total	1819.991	1710			

Table 8: Post Hoc Tests table on the relationship between web features and customer trust

#### **Multiple Comparisons**

Dependent variable: Trust

Turkey HSD

(I) Online attribute	(J) Online attribute	Mean	Std.	Sig.
		Difference	Error	
	XXXX 11N1	(I-J)		
	Web design	22430	.09945	.319
	Price detail	21495	.09945	.376
	Treatment procedure detail	06075	.09945	.999
Location of dental	Dentist information	33645*	.09945	.017
	Picture of physical	09662	.09956	.979
service	environment			
	Contact information and	16822	.09945	.693
	easy to contact			
	Customer reviews	07477	.09945	.995

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

Customers with different chief complaint of dental treatment needed in the first visit do not show a significant difference on the effect that each web feature has on their level of trust, as shown in Appendix 8.

There is a significant difference on the effect of web features in relation to trust, between ages 30 and below and those over 30 years old (Mean equal to 3.9 and 3.73 respectively) t-test = 0.042 at 0.05 significance level. There is also a significant difference in the level of trust between monthly income 25,000 to 35,000 THB and over 35,001 THB (Mean equal to 3.88 and 3.7 respectively) t-test = 0.032 at 0.05. However, there is no significant difference in the level of trust between genders, as demonstrated in Appendix 4 to 6.

The results also showed that, there is a positive correlation between the effect of web features on customer trust and perceived risk, influence of web attributes on customer decision, satisfaction and re-visit intention, at 0.05 and 0.01. P value and Pearson correlation as in Appendix 7.

#### EFFECT OF TRUST ON PERCEIVED RISK

Table 9 shows that 64.5 percent of customers agree that an informative website with the above eight attributes can moderately reduce their perceived risk, when choosing a new dental service provider.

Table 9: Range, Mean, and Standard deviation of trust effect on customers' perceived risk (n=214)

	Min	Max	Mean	Standard Deviation	Top two box (%)
Informative website effect on reduced customer perceived risk	1	5	3.70	0.991	64.5

#### **INTENTION**

The eight attributes of a website that influences the customers' decision-making process, showed that, 78.5 percent of customers agree that dentist information and expertise may affect their decision, while 75.7 percent of customers indicate that, treatment procedure details often influence their decision. Also, dentist information and expertise, and treatment procedure details were the two most important attributes that had the highest effect on customers' decision. The next important attributes are, contact information and ease to contact, pictures of the physical environment, price details, location, and customer reviews. The least important attribute is web design. The overall effect of these eight attributes of an online channel had a moderate influence on how customers' arrive at a decision, as shown in Figure 4.

Figure 4: Average score of web features that influence customers' decision when choosing a new dental service provider (n=214)

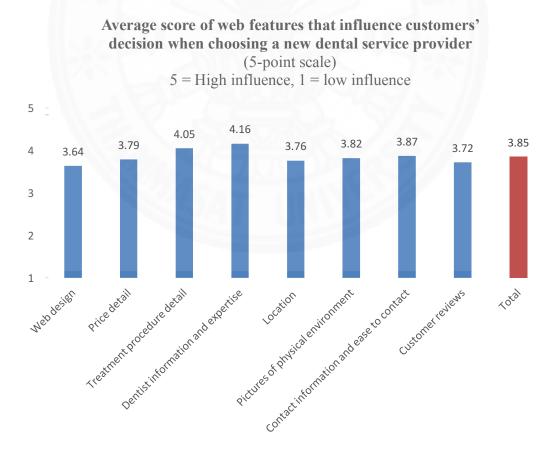


Table 10: Mean and Standard deviation on how web features may influence consumers' intention to purchase (n=214)

Intention (Online attributes)	Mean	Standard	Top two box
Intention (Online attributes)	Mean	Deviation	(%)
1. Web design	3.64	0.908	57.5
2. Price detail	3.79	1.053	66.3
3. Treatment procedure detail	4.05	0.975	75.7
4. Dentist information and expertise	4.16	0.824	78.5
5. Location	3.76	0.881	68.7
6. Pictures of physical environment	3.82	0.978	66.4
7. Contact information and ease to contact	3.87	0.780	70.1
8. Customer reviews	3.72	0.991	59.3
Total	3.85	0.388	

Table 11: ANOVA table on how web features may influence consumers' intention to purchase

#### **ANOVA**

#### Intention

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	45.677	7	6.525	7.581	.000
Within Groups	1466.743	1704	.861		
Total	1512.420	1711			

The ANOVA test result shows that, there is a significant difference (p=0.000 at 95% confident interval) between each web attribute that influences a customer's intention when deciding to choose a new dental service provider. As shown in Table 12, the post hoc analysis reveals that, dentist information and expertise has more significant influence, than treatment procedure details. Moreover, both attributes have more significant influence on customer decision-making, compared to other attributes.

Table 12: Post Hoc Tests table on how web features may influence consumers' intention to purchase

#### **Multiple Comparisons**

Dependent variable: Intention

Turkey HSD

(I) Code2	(J) Code2	Mean	Std.	Sig.
		Difference	Error	
		(I-J)		
	Web design	.41589*	.08969	.000
	Price detail	.26636	.08969	.060
Treatment	Dentist information	10748	.08969	.933
	Location of dental service	.29439*	.08969	.023
procedure detail	Picture of physical environment	.23364	.08969	.155
detail	Contact information and easy to	.17757	.08969	.496
11 66	contact			
	Customer reviews	.33178*	.08969	.005
11 1	Web design	.52336*	.08969	.000
	Price detail	.37383*	.08969	.001
115241	Treatment procedure detail	.10748	.08969	.933
Dentist	Location of dental service	.40187*	.08969	.000
information	Picture of physical environment	.34112*	.08969	.004
	Contact information and easy to	.28505*	.08969	.032
	contact		//	
	Customer reviews	.43925*	.08969	.000

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

There is no significant on how web features may influence consumers' intention to purchase between gender, age (below 30 years old and 30 years old and over), and monthly income level (20,000 to 35,000 THB and over 35,001 THB) (T-test, 0.05 significant level) as in Appendix 4 to 6.

The results also show that, there is a positive correlation between the influence of a web feature on customers' decision and perceived risk, effect of a website's attribute on customer trust, and satisfaction at 0.05 and 0.01 significant level. P value and Pearson correlation as in Appendix 7.

#### OVERALL INTENTION TO PURCHASE

The result of customer's intention to visit the new dental service provider they found online shows that, the intention is in the moderate level, 59.3 percent will go to the selected dental service provider as shown in Table 13.

Table 13: Range, Mean, and Standard deviation of customer's intention to purchase (n=214)

	Min	Max	Mean	Standard Deviation	Top two box (%)
"I will definitely go to this dental service provider"	1	5	3.59	0.939	59.3

There is no significant difference from the overall intention to purchase between gender, age (below 30 years old and 30 years old and over), and monthly income level (20,000 to 35,000 THB and over 35,001 THB) (T-test, 0.05 significant level), as indicated in Appendix 4 to 6.

As demonstrated in Appendix 7, there is a positive correlation between the overall intention to purchase and the effect of online attributes on customer trust (Pearson Correlation = 0.193, p value = 0.012 at 0.05 significant level).

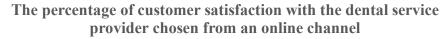
#### **SATISFACTION**

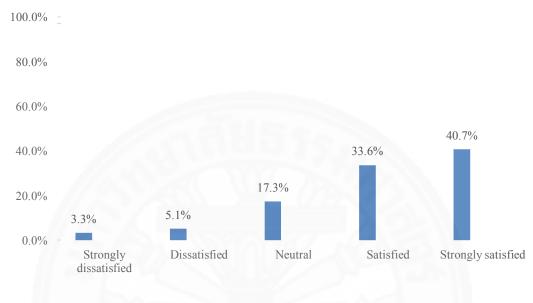
The survey result on customer satisfaction with the chosen dental service provider reveals that, 74.3 percent of the customers are satisfied with their choice, with an average satisfaction score of 4.03, as shown in Table 14 and Figure 5.

Table 14: Range, Mean, and Standard deviation of customer satisfaction with the dental service provider chosen from an online channel (n=214)

	Minimum	Maximum	Mean	Standard	Top two box
	171111111111111111111111111111111111111	1,14,111,111	1/10411	Deviation	(%)
Satisfaction	1	5	4.03	1.041	74.3

Figure 5: The percentage of customer satisfaction with the dental service provider chosen from an online channel (n=214)





The results also show that, there is no significant difference in satisfaction between gender, age (below 30 years old and 30 years old and over), and monthly income level (20,000 to 35,000 THB and over 35,001 THB) (T-test, 0.05 significant level) as in Appendix 4 to 6.

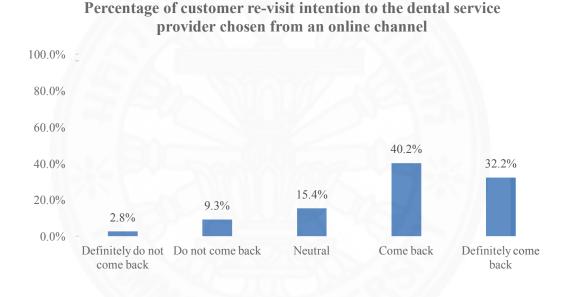
Satisfaction shows a positive correlation with effect of online attributes on customer trust (Pearson coefficient = 0.392, p value = 0.000 at 0.01 significant level). It also shows a positive correlation with influence of online attributes on customer decision (Pearson coefficient = 0.162, p value = 0.035 at 0.05 significant level), as shown in Appendix 7.

#### **RE-VISIT INTENTION**

The survey result of customers' intention to revisit the dental service provider, chosen from an online channel, shows that, 72.4 percent of the customers planned to visit the same dental service provider with average re-visit intention score of 3.9, as shown in Table 15 and Figure 6.

	Minimum	Maximum	Mean	Standard Deviation	Top two box (%)
Re-visit intention	1	5	3.90	1.048	72.4

Figure 6: Percentage of customer re-visit intention to the dental service provider chosen from an online channel (n=214)



There was no significant difference in the level of re-visit intention between gender, age (below 30 years old and 30 years old and over), and monthly income level (20,000 to 35,000 THB and over 35,001 THB) (T-test, 0.05 significant level), as in Appendix 4 to 6.

Re-visit intention showed a positive correlation with the effect of a website's attribute on customer trust (Pearson coefficient = 0.288, p value = 0.000 at 0.01 significant level) as shown in Appendix 7.

#### STRUCTURAL MODEL ASSESSMENT

### Reliability

The assessment of measurement model included internal consistency for reliability, convergent validity, discriminant validity, and collinearity of indicator. Table 16 shows the descriptive statistics and reliability indices for construct. Composite reliability was greater than the benchmark of 0.7 (0.86), indicating acceptable internal consistency.

Table 16: Descriptive statistics and reliability indices for constructs

Construct	Type of indicators	Mean	S.D.	Alpha	Composite reliability	AVE
Perceived risk	Reflective	3.45	0.83	0.83	0.86	0.51
Purchase	Reflective	3.59	0.94	1	1	1
Purchase intention	Formative	3.73	0.57	N/A		
Trust	Formative	3.85	0.39	N/A	4 1	

## Validity

Construct validity was assessed by convergent validity and discriminant validity. Convergent validity examines how the measurement correlates positively with alternative measures of the same construct (Joseph F. Hair, Hult, Ringle, & Sarstedt, 2014). The average variance extracted (AVE) is the common measure used to establish convergent validity, AVE should be 0.5 or higher. In the construct, the AVE is 0.51, which indicates that the construct explained about half of the variance of its indicators.

Discriminant validity is the extent to which a construct is truly distinct from other constructs by empirical standards (Joseph F. Hair et al., 2014). The Fornell-Larcker criterion approach is used to assess the discriminant validity. The square root of AVE of each latent variable should be greater than the correlation among the latent variable as shown in Table 17.

Table 17: Discriminant validity (Fornell-Larcker Criterion)

	Perceived risk	Purchase	Purchase intention	Trust
Perceived risk	0.716			
Purchase	0.254	1.000		
<b>Purchase intention</b>	0.649	0.178		
Trust	0.580	0.127	0.773	

## Collinearity of indicators

The tolerance and VIF were both used to assess the collinearity. A tolerance value should be greater than 0.2, and a VIF value lower than 5 indicated that there was no collinearity problem as shown in Table 18.

Table 18: Collinearity statistic

#### Coefficients a

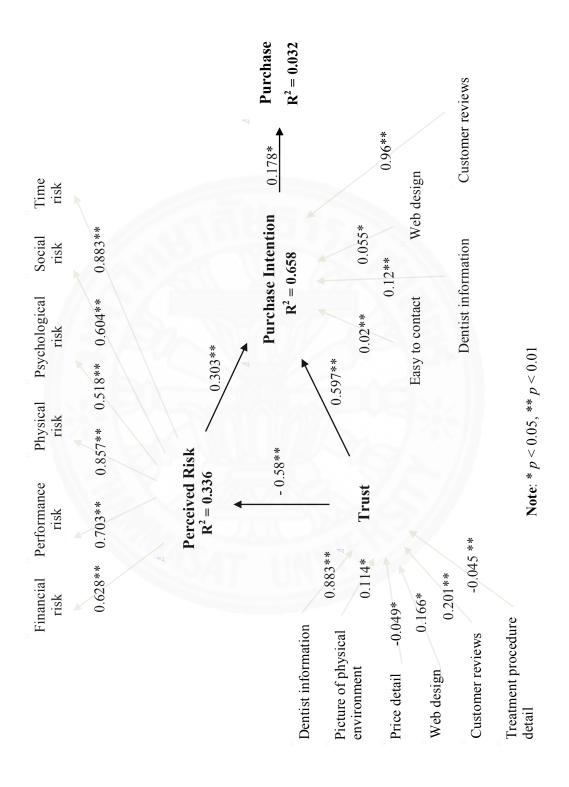
Model		Unstandard	dized	Standardized	t	Sig.	95.0% C	Confidence	Collinear	rity
		Coefficie	ents	Coefficients			Interv	al for B	Statistic	es
		В	Std.	Beta		100	Lower	Upper	Tolerance	VIF
	1199		Error		11/11		Bound	Bound		
	(Constant)	5.671E-006	.040	YW III	.000	1.000	079	.079		
1	Risk	.303	.049	.303	6.141	.000	.206	.401	.664	1.506
	Trust	.597	.049	.597	12.079	.000	.499	.694	.664	1.506

a. Dependent Variable: Intention

## **Findings**

Figure 7 below illustrates the PLS result of structural model included path coefficient and  $R^2$ . The significance of path coefficient is calculated by bootstrapping. Details of cross loading, outer loading and outer weight, and p value, are shown in Appendix 9 to 11.

Figure 7: Results of structural model



As shown in Figure 7, trust had the strongest positive effect on purchase intention, as expressed in hypothesis 5, while perceived risk also had a positive effect on purchase intention, which is different from the proposal and expectation in hypothesis 2. Trust has a strong negative effect on perceived risk, as proposed in hypothesis 4. All the path coefficient of trust, perceived risk, and purchase intention were significant at the 0.01 level.

The effect of web features on trust, shows that only six attributes were significant. Dentist information, picture of a physical environment, web design, and customer reviews had a positive impact on customer trust, while price details and treatment procedure details had mild negative impact on trust.

The customers considered all six type of perceived risk before deciding to select a new dental service provider from an online channel. All path coefficients are significant at the level of 0.01.

Only four attributes of a web feature significantly affected consumer's decision-making. Easy to contact, dentist information, and customers review positively affected consumer's decision-making at the level of 0.01, while web design was positively impacted at the level of 0.05.

Customer purchase intention had a positive significant effect on consumer purchase, at the level of 0.05, but explained only 3.2 percent of the variance in consumer purchase decision.

Overall, the model well predicts the level of perceived risk and purchase intention with  $R^2$ =0.336 and  $R^2$ =0.658 respectively.

The summary of hypothesis test result is shown in the following Table 19.

Table 19: Summary of hypothesis test

Uynothosis	Supported /
Hypothesis	Not supported
H1a: Consumers will perceive social risk before deciding to select	Supported
a new dental service provider	

т а:	Supported /
Hypothesis	Not supported
H1b: Consumers will perceive financial risk before deciding to	Supported
select a new dental service provider	
H1c: Consumers will perceive physical risk before deciding to	Supported
select a new dental service provider	
H1d: Consumer will perceive performance risk before deciding to	Supported
select a new dental service provider	
H1e: Consumers will perceive time risk before deciding to select a	Supported
new dental service provider	
H1f: Consumers will perceive psychological risk before deciding	Supported
to select a new dental service provider	
H2: Perceived risk negatively affects consumer's decision-making	Not Supported
H3a: Web design appearance positively affects the trust in the	Supported
dental service provider	
H3b: Completed price details positively affects the trust in the	Supported
dental service provider	
H3c: Completed treatment procedure detail positively affects the	Supported
trust in the dental service provider	
H3d: Dentist information and expertise positively affects the trust	Supported
of the dental service provider	
H3e: Convenience of location positively affects the trust in the	Not Supported
dental service provider	
H3f: Picture of physical environment positively affects the trust of	Supported
the dental service provider	
H3g: Contact channel positively affects the trust in the dental	Not Supported
service provider	
H3h: Customer reviews positively affects the trust in the dental	Supported
service provider	
H4: Trust has negative effects on perceived risk	Supported
H5: Trust has positive effects on purchase intention	Supported

Hymothosis	Supported /	
Hypothesis	Not supported	
H6a: Web design appearance has positive effect on purchase	Supported	
intention		
H6b: Completed price details have positive effects on purchase	Not Supported	
intention		
H6c: Completed treatment procedure detail has a positive effect	Not Supported	
on purchase intention		
H6d: Dentist information and expertise has a positive effect on	Supported	
purchase intention		
H6e: Convenience of location has a positive effect on purchase	Not Supported	
intention		
H6f: Picture of physical environment has a positive effect on	Not Supported	
purchase intention		
H6g: Contact channel has a positive effect on purchase intention	Supported	
H6h: Customer reviews has a positive effect on purchase intention	Supported	
H7: Consumer's intention to choose a new dental service provider	Supported	
from an online channel positively affects the purchase decision		

### **CHAPTER 5**

## CONCLUSIONS AND RECOMMENDATIONS

#### **DISCUSSION**

In order to better understand how consumers select a new dental service provider through the internet, we investigated the degree of perceived risks, online attributes and its impact on consumers' decision making process. The result from SPSS and structural model confirm the previous study by *Coleman et al, 1996* that, customers have a relatively moderate degree of six types of perceived risk before choosing a new dental service provider. However, these risks are not related to the treatment they needed or socio-demographic status which means that, perceived risk is subjective and may vary from customer to customer.

The previous study shows that in health care-related decision-making customers perceived more psychological and social risk than other types of risk while this study results show similar risk perception on six types of perceived risks. The fact that dental problems are less obvious and less fatal than health care could be a reason that customers do not have a different perception of risk between six dimensions. For more intense dental treatment such as full mouth rehabilitation or esthetic-related treatment, risk perception could show some difference between each type which needs to be confirmed by further study.

Both the results from SPSS and the structural model are in agreement that perceived risk has a positive impact on customers' intention, not a negative impact as expected. This may indicate that, although customers have some degree of perceived risk when choosing a new dental service provider, their need of dental treatment could overcome the degree of perceived risk and influence them to make a decision. However, the impact of perceived risk on customers' intention is lower than the impact level of trust on intention.

Most of the online attributes in this study have a significant positive effect on consumers' trust, especially when the consumer's age is below 30 years old. Consumers' below age 30 have been identified as the millennial generation. This group of consumers trust the information online than older generations, and make

only limited attempt to evaluate and validate the quality of information. (Taylor, 2012)

Dentist information and expertise is the attribute that shows the most significant positive effect on consumers' trust. The model shows that price details and treatment procedure details have a slightly negative effect on trust. The in-depth interview reveals that most of the dental websites still have an insufficient and sometimes no information, and normally ask consumers to contact them for further details, which decreases the credibility of the website.

Both results from SPSS and the model show that trust has a significantly negative impact on perceived risk. Consumers agree that the informative website could moderately reduce their perceived risk when making a decision.

The results from the survey reflect that, dentist information and expertise and treatment procedure details are the two most important attributes of the online channel that influence their decision. However, the structural model reveals that customer reviews have the strongest positive impact on customers' intention, while other attributes have only mild positive impact. For high involvement service, consumers typically rely on word of mouth. Customer reviews are considered as an electronic form of word of mouth on the online channel.

Location, is the only attribute that shows no significant impact on both trust and consumer decision-making. It could be because consumers use location as a primary search criteria before arriving at the page of each dental service provider. Thus, consumers do not consider as a factor that can increase trust or influence their decision.

Consumers' intention to purchase generally has a positive effect on the actual visit to the chosen dental clinic. However, the relationship was only on a light level. Purchase intention can explain only approximately 3 percent of actual visit behavior which means that, other factors account for the actual behavior. Most patients will visit a dentist when they feel pain or discomfort, sometimes when the experience less pain, they prolong their decision to visit the dentist. Timing of the data collection could be another factor, as the measurement was in the recall format.

Generally, satisfaction in health care industry is related to health care quality, and was proposed to be a multidimensional concept. The dimensions include, 1) the

art of health care, which focuses on the personality aspect of the health care provider 2) technical competence, which is the patient's perception of provider's knowledge and expertise 3) physical environment as perceived by the patient and 4) efficacy of care or the patient's perception of treatment outcome. (Rivers and Glover 2008).

In this study, the average satisfaction score was 4.03 on a 5-point scale or equal to 80.6 on a 100-point scale. When compared to the health care industry's benchmark score from ACSI (American Customer Satisfaction Index), the outpatient score of 80 is considered to be comparable (ACSI 2015).

The results show that about 8 percent of the customers are not satisfied with the selected dental service provider. In fact, 12 percent of the customers plan not to re-visit the same dental service provider again. It is reasonable that customers who are dissatisfied with the service provider will not repurchase if they have other available choices and the switching cost and opportunity cost are not considered high. Currently in Thailand, customers have a large set of dental service provider choices, the percentage of dissatisfied customers translate to the non-re-visit intention group. The remaining percentage of customers who indicated that they will not re-visit may have decided based on other factors, including instances when a dental service provider fails to provide the treatment that was requested.

### **CONCLUSION**

The combination results from SPSS and the structural model confirm that customers have some degree of perceived risk not related to their treatment need or socio-demographic status. Surprisingly, these perceived risks have a positive influence on consumer decision making. The location of the practice is the first criteria that customers use when searching. An informative website has a substantial positive effect of increasing trust and intention to purchase. This especially relates to information on dentist skill and expertise and customer reviews.

Future research may investigate more of the attributes that influence the source of trust and decision making process in different dental care setting. Further studies can examine how perceived risks and perceived dental care needs are related, and how they influence the choice of a dental service provider.

#### RECOMMENDATIONS

In this study, consumers with different dental needs do not differ significantly in terms of perceived risks, attributes, the influence trust, and their selection criteria.

An informative website has a significant positive effect on consumers' trust and intention. On the other hand, insufficient information on price and treatment procedure details can have a negative impact. All of the eight attributes investigated in this study show different impacts of the evaluation and selection process. Thus, marketing should take this into consideration. First, in order to gain a customer's trust, the dental service provider should make the website easy to navigate and information should be easy to access. Complete information of a dentist's academic background and experience, picture of the physical environment and service setting, price and treatment procedure details, are necessary for customers to evaluate the new dental service provider. Second, to influence customers' selection process, customer reviews are the most important attributes that customers prefer. The dental service provider would benefit from encouraging customers to write a comment or review on the website.

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## Questionnaire

- Q.1 During the last three months have you ever chosen a new dental service provider via online channel (website, Facebook page)?

  1 Yes
  2 No
- Q.2 What dental treatment did you need when you decided to choose this new dental service provider

Cleaning	Prosthesis
Filling	Dental Implant
Extraction	Orthodontic treatment
Root Canal Treatment	Teeth whitening

Q.3 How often do you normally visit a dentist?

(1) Every 3-6	(2) Every year	(3) More than 1	(4) Only when I
months		year	have a symptom

Q.4 "If the dental service is not performed properly from a new dental service provider". To what extent do you agree with the following statement

	Perceived risk (RISK)	(1) strongly disagree	(2) disagree	(3) neither agree or disagree	(4) agree	(5) strongly agree
1	I will feel embarrassed.					
2	I will loose my money					
3	I will have pain or physical discomfort					
4	It will do harm to my health and safety					
5	I will waste my time					
6	It will harm my appearance.					

Q.5 To what extent do you agree that the following attributes "can increase my confidence in choosing new dental service provider".

Trust (TRUST): Attribute on online channel of dental service provider		(1) strongly disagree	(2) disagree	(3) neither agree or disagree	(4) agree	(5) strongly agree
1	Web design					
2	Price details					
3	Treatment procedure detail					
4	Dentist information and expertise					
5	Location of dental service					
6	Picture of physical environment					
7	Contact information and easy to contact			ø.		
8	Customer reviews				7/	

# Q.6 To what extent do you agree with the following statement

<sup>&</sup>quot;An informative web site of the dental service provider will reduce the risk that I might have."

(1)	(2)	(3) neither	(4) agree	(5) strongly
strongly	disagree	agree or		agree
disagree		disagree		

Q.7 To what extent do you agree that the following attributes "influence my intention to choose new dental service provider".

	Purchase Intention (INTENTION)	(1) strongly disagree	(2) disagree	(3) neither agree or disagree	(4) agree	(5) strongly agree
1	Web design					
2	Price details					
3	Treatment procedure detail					
4	Dentist information and expertise					
5	Location of dental service	Mini				
6	Picture of physical environment			A		
7	Contact information and easy to contact					
8	Customer reviews					

# Q.8 To what extent do you agree with the following statement

Purchase (PURCHASE)	(1) strongly disagree	(2) disagree	(3) neither agree or disagree	(4) agree	(5) strongly agree
1 I will definitely go to this dental service provider.					

# Q.9 Overall, how satisfied are you with this dental service provider

(1) very		(3) neither satisfied	(4) satisfied	(5) very
dissatisfied	dissatisfied	or dissatisfied		satisfied

# Q.10 To what extent do you agree with the following statement

Repurchase (REPURCHASE)	(1) strongly disagree	(2) disagree	(3) neither agree or disagree	(4) agree	strongly agree
1 I will definitely come back to this dental service provider.					

- Q.11 How old are you in years?
- Q.12 What is your gender?

1	Male
2	Female

Q.13 What is your current income per month in Thai baht?

1	20,000 - 35,000
2	35,001 - 50,000
3	50,001 - 85,000
4	85,001 - 160,000
5	> 160,000

Cover letter

Date 16 January 2016

Dear Participant:

I am a graduate student from Master's Degree Program in Marketing

(International program) Thammasat University. For our research project in MK 703:

Independent Study2

I am studying the pre-decision risks concerning in choosing the new dental service

provider and its impact on consumer decision-making. Also, investigate on how each

content attributes on the online channel have an effect on trust and purchase intention.

I am inviting you to participate in this research study by completing the attached

surveys.

The following questionnaire will require approximately 5 minutes to complete.

There is no compensation for responding nor is there any known risk. In order to

ensure that all information will remain confidential, please do not include your name.

Copies of the project will be provided to my advisor and Faculty of Commerce and

Accountancy at Thammasat University. If you choose to participate in this project,

please answer all questions as honestly as possible and return the completed

questionnaires promptly via online channel in surveymonkey or to our interviewer.

Participation is strictly voluntary and you may refuse to participate at any time.

Thank you for taking the time to assist me in my educational endeavors.

Completion and return of the questionnaire will indicate your willingness to

participate in this study. If you require additional information or have questions

regarding to this research, please contact at the following contact detail.

Sincerely,

Miss Sallpachuda Chaicharoen

Email: Sallpachuda.chai@gmail.com

# ANOVA table for perceived risk and dental treatment

## **ANOVA**

# Perceived Risks

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.985	7	.569	1.554	.153
Within Groups	58.977	161	.366		
Total	62.962	168			



# T-test gender

## **Independent Samples Test**

independent samples Test										
		Levene for Equ Varia	ality of		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interva	nfidence l of the rence
				200-2					Lower	Upper
Perceived Risks	Equal variances assumed	.013	.909	.11	167	.917	.011	.10	19	.21
	Equal variances not assumed			.11	106.86	.91	.011	.099	19	.21
Trust	Equal variances assumed	.261	.610	87	167	.387	077	.09	25	.09
	Equal variances not assumed			84	94.48	.40	077	.09	26	.10
Purchase Intention	Equal variances assumed	.558	.456	85	167	.396	052	.06	17	.07
	Equal variances not assumed		H	90	115.47	.37	052	.06	17	.06
8.I will definitely go to this dental	Equal variances assumed	3.006	.085	.66	167	.510	.11	.16	21	.42
service provider.	Equal variances not assumed	$\langle \langle \rangle$		.69	112.10	.49	.11	.15	19	.41
9.Overall, how satisfied are you	Equal variances assumed	.881	.349	.44	167	.662	.08	.18	27	.43
with this dental service provider	Equal variances not assumed			.46	112.93	.65	.08	.17	26	.42
10.I will definitely come back to this	Equal variances assumed	.371	.543	13	167	.893	024	.18	38	.34
dental service provider.	Equal variances not assumed			13	100.67	.89	024	.18	39	.34

# T-test age

## **Independent Samples Test**

		for Eq	e's Test uality of ances			t-te	st for Equality	of Means		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interva	nfidence l of the rence
						tunear	Difference	Billerence	Lower	Upper
Perceived Risks	Equal variances assumed	.566	.453	84	167	.403	08	.09	27	.11
	Equal variances not assumed		V	83	156.22	.406	08	.09	27	.11
Trust	Equal variances assumed	.532	.467	2.05	167	.042	.17	.08	.01	.33
- //	Equal variances not assumed	3/		2.05	166.9	.042	.17	.08	.01	.33
Purchase Intention	Equal variances assumed	5.01	.027	.46	167	.647	.03	.06	09	.14
16	Equal variances not assumed		M	.46	164.83	.646	.03	.06	09	.14
8.I will definitely go to this dental	Equal variances assumed	.051	.821	49	167	.622	07	.15	37	.22
service provider.	Equal variances not assumed		K	49	162.46	.624	07	.15	37	.22
9.Overall, how satisfied are you with	Equal variances assumed	2.31	.130	1.17	167	.245	.19	.17	13	.52
this dental service provider	Equal variances not assumed			1.17	166.44	.243	.19	.16	13	.52
10.I will definitely come back to this	Equal variances assumed	.166	.685	59	167	.559	09	.17	43	.23
dental service provider.	Equal variances not assumed			58	163.63	.560	09	.17	43	.24

# **T-test income**

## **Independent Samples Test**

		for Eq	e's Test uality of iances			t-tes	t for Equality	of Means		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interva	nfidence l of the rence Upper
Perceived Risks	Equal variances assumed	.213	.645	.937	167	.350	.09132	.09742	10	.28
	Equal variances not assumed			.932	128.155	.353	.09132	.09796	10	.29
Trust	Equal variances assumed	1.212	.273	2.164	167	.032	.18323	.08469	.02	.35
	Equal variances not assumed	9		2.142	126.314	.034	.18323	.08555	.01	.35
Purchase Intention	Equal variances assumed	1.656	.200	.513	167	.609	.03029	.05903	09	.15
	Equal variances not assumed			.504	123.234	.615	.03029	.06009	09	.15
8.I will definitely go to this dental	Equal variances assumed	.239	.625	.117	167	.907	.018	.154	29	.32
service provider.	Equal variances not assumed	4		.115	122.648	.908	.018	.157	29	.33
9.Overall, how satisfied are you	Equal variances assumed	1.102	.295	1.290	167	.199	.220	.170	12	.56
with this dental service provider	Equal variances not assumed			1.262	121.639	.209	.220	.174	13	.56
10.I will definitely come back to	Equal variances assumed	2.687	.103	1.198	167	.233	.208	.174	14	.55
this dental service provider.	Equal variances not assumed			1.163	118.638	.247	.208	.179	15	.56

# **Correlation table**

### Correlations

		Perceived Risks	Trust	Purchase Intention	8.I will definitely go to this dental service provider.	9.Overall, how satisfied are you with this dental service provider	10.I will definitely come back to this dental service provider.
Perceived Risks	Pearson Correlation	1	.179*	.204**	.039	054	105
	Sig. (2-tailed)		.020	.008	.611	.482	.173
	N	169	169	169	169	169	169
Co. Sig	Pearson Correlation	.179*	1	.324**	.193*	.392**	.288**
	Sig. (2-tailed)	.020	$\mathbf{w}$	.000	.012	.000	.000
	N	169	169	169	169	169	169
Purchase Intention	Pearson Correlation	.204**	.324**	1	.136	.162*	.079
	Sig. (2-tailed)	.008	.000		.077	.035	.306
	N	169	169	169	169	169	169
8.I will definitely go	Pearson Correlation	.039	.193*	.136	1	.126	022
to this dental service	Sig. (2-tailed)	.611	.012	.077	-1	.103	.776
provider.	N	169	169	169	169	169	169
9.Overall, how satisfied are	Pearson Correlation	054	.392**	.162*	.126	1	.129
you with this dental service	Sig. (2-tailed)	.482	.000	.035	.103		.096
provider	N	169	169	169	169	169	169
10.I will definitely	Pearson Correlation	105	.288**	.079	022	.129	1
come back to this dental	Sig. (2- tailed)	.173	.000	.306	.776	.096	
service provider.	N	169	169	169	169	169	169

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

# ANOVA table for trust and dental treatment

## **ANOVA**

Trust

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.153	7	.308	1.065	.388
Within Groups	46.503	161	.289		
Total	48.656	168			

APPENDIX 9 **Cross loadings of the items to constructs** 

	Perceived	Purchase	Purchase	Trust
	risk		intention	
intention_contact	0.163	0.084	0.299	0.238
intention_dentist	0.124	0.114	0.269	0.214
intention_review	0.649	0.160	0.991	0.768
intention_web design	0.155	0.178	0.183	0.080
Purchase	0.254	1.000	0.178	0.127
risk_finance	0.628	0.235	0.216	0.198
risk_performance	0.703	0.266	0.360	0.327
risk_physical	0.857	0.175	0.545	0.477
risk_psychological	0.518	0.212	0.160	0.136
risk_social	0.640	0.178	0.211	0.128
risk_time	0.883	0.171	0.764	0.701
trust_dentist	0.497	0.052	0.767	0.944
trust_picture	0.172	0.153	0.150	0.231
trust_price detail	0.131	0.132	0.149	0.205
trust_review	0.402	0.277	0.351	0.541
trust_treatment detail	0.095	0.153	0.234	0.253
trust_web design	0.308	0.129	0.153	0.318

APPENDIX 10

Outer loadings and outer weights

	Perceived risk	Purchase	Purchase intention	Trust
intention_contact			0.020	
intention_dentist			0.120	
intention_review			0.960	
intention_web design			0.055	
purchase		1.000		
risk_finance	0.628			
risk_performance	0.703			
risk_physical	0.857			
risk_psychological	0.518			
risk_social	0.640			
risk_time	0.883			
trust_dentist				0.883
trust_picture				0.114
trust_price detail				-0.049
trust_review				0.201
trust_treatment detail				-0.045
trust_web design				0.166

APPENDIX 11

P values for outer loadings and outer weights

	Perceived risk	Purchase	Purchase intention	Trust
intention_contact			0.730 (0.001)	
intention_dentist			0.025 (0.002)	
intention_review			0.000 (0.000)	
intention_web design			0.444 (0.050)	
purchase				
risk_finance	0.000			
risk_performance	0.000			
risk_physical	0.000			
risk_psychological	0.000			
risk_social	0.000			
risk_time	0.000			
trust_dentist				0.000(0.000)
trust_picture				0.105 (0.013)
trust_price detail				0.472 (0.037)
trust_review				0.006 (0.000)
trust_treatment detail				0.510 (0.006)
trust_web design				0.011 (0.000)

<sup>\*</sup> Values in ( ) are p value for outer loadings of formative variables

# **BIOGRAPHY**

Name Miss Sallpachuda Chaicharoen

Date of Birth June 20, 1986

Educational Attainment 2010: Doctor of Dental Surgery

Thammasat University

