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Aesthetic-Based of Technology Acceptance Model: A Case of Aesthetic Clinic in Thailand

Abstract: - Recent studies within the beauty industry, employing the Technology Acceptance Model (TAM), has predominantly directed its focus towards functional factors, neglecting to adequately address emotional facets such as Perceived Aesthetics. This study investigates the aesthetic aspects of technology through the lens of the Technology Acceptance Model, leveraging questionnaire-based data obtained from a sample of 529 participants aged 18 and above who have experienced the services at aesthetic clinics in Thailand. The dataset underwent meticulous examination to elucidate interrelationships among variables, and the proposed conceptual framework was validated using Structural Equation Modeling (SEM). The results unveiled a significant correlation between service quality and the acceptance of the aesthetic clinic application. Service quality was delineated into four distinct factors: Platform Quality, Interaction Quality, Information Quality, and Personalized Quality, which encompassed perceived value attributes such as Perceived Usefulness, Perceived Ease of Use, Perceived Trust, and Perceived Aesthetics. Information Quality displayed notable significance as a driver for Perceived Usefulness, Perceived Ease of Use, and Perceived Aesthetics, whereas Interaction Quality emerged as a dominant influencer of Perceived Trust. The study revealed the pivotal role of mediator variables, including Perceived Ease of Use and Perceived Aesthetics, as crucial factors for application acceptance. This study conclusively affirms the significant impact of Perceived Aesthetics on adopting aesthetic clinic applications and suggests it as an additional dimension for the Technology Acceptance Model. As a result, the finding is poised to significantly contribute to future research endeavors within the beauty industry.

Keywords: Aesthetic clinic, mobile application, mHealth, perceived aesthetics, technology acceptance model, adoption intention

I. INTRODUCTION

The prior research on the adoption of beauty mobile applications have predominantly put an emphasis on functional elements and system stability. This underscores a noteworthy gap in the examination of the emotional dimensions inherent in such applications, particularly in relation to their Perceived Aesthetics. Perceived Aesthetics embodies the experiential and sensory aspects of beauty, delineated by the satisfaction derived from the positive interaction between service providers (applications) and users [1]. This observation holds significant implications for the development of products or services aimed at captivating consumers and evoking aesthetic sentiments.

The beauty industry exhibits a notably high growth trajectory, propelled by individuals' heightened focus on personal appearance, which holds the potential to bolster self-confidence across social and professional spheres. Consequently, this trend has engendered intense competition within the aesthetic clinic market. To sustain market relevance, businesses must adeptly grasp market demands and consumer dynamics. For aesthetic clinics, the adoption of innovative and technologically advanced approaches is imperative for ensuring longevity and success within the industry [2]. Among these strategic approach, the transition from offline to online marketplaces through the development of mobile applications emerges as a pivotal avenue for attracting new customers, retaining existing ones, and optimizing customer service operations [3].

Hence, it is necessary for mobile application developers to prioritize the cultivation of favorable user experiences, placing emphasis on user-centered design rather than solely focusing on crafting aesthetically pleasing products [4]. Understanding the diverse array of consumer preferences and the contextual factors that influence aesthetic inclinations becomes crucial for product developers. Consumer satisfaction with aesthetics plays a significant role in shaping their future engagement or avoidance tendencies towards products [5], particularly within the domain of beauty-related application development.

In light of this, the present study employed the Technology Acceptance Model (TAM), a widely recognized framework utilized for predicting and interpreting consumer behaviors related to innovation and technology

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acceptance. Within the beauty service industry, this research underscores a notable deficiency in addressing the aspect of Perceived Aesthetics, which constitutes another crucial factor for the beauty industry.

II. LITERATURE REVIEW

In order to deliver exceptional service quality, aesthetic businesses must prioritize meeting the needs and fulfilling the expectations of their customers (service recipients). In today's landscape, with technology reaching advanced stages of development and widespread adoption across various sectors, entrepreneurs in the aesthetic business industry are compelled to adapt their business strategies to offer more services through online channels. However, for customers accustomed to traditional on-site services to transition to online channels or mobile applications, numerous factors must be taken into account. This research centers on investigating the quality of services in the realm of Mobile Health (mHealth), which entails the delivery of health and medical services via portable devices such as mobile phones, smartphones, tablets, and similar platforms [6].

By utilizing smartphones as the medium for communication between customers and medical professionals in consulting health concerns, medical applications can be used for a variety of medical services, such as diagnosis, monitoring, and follow-up [7]. It can create, store, retrieve, and transmit real-time data between customers and providers. These applications also help improve the efficiency of the service and also reduce costs [8].

The service quality components of mHealth are primarily categorized into three factors: Platform Quality, Interaction Quality, and Information Quality. However, in the context of aesthetic clinics, a notable deficiency in Personalized Quality was recognized, underscoring its significance as another crucial factor that warrants inclusion of necessary quality. Personalized Quality plays a pivotal role in influencing the acceptance of technology usage, particularly through mobile devices [9], which would inevitably affect the perception of the quality of the system and user satisfaction.

Platform Quality refers to the ease of use, enabling customers (users) to access services seamlessly, with the system also demonstrating swift responsiveness to queries while maintaining stability of operation [10]. Moreover, the system should possess the capability to aggregate information from disparate sources, thereby enhancing usability effectiveness and user satisfaction [11]. Perceptions of Platform Quality by users not only suggest potential improvements in quality of life but also contribute to heightened awareness regarding the benefits of use [12]. Platform Quality consists of three sub-components: 1) System Reliability, ensuring that customers can access and utilize the platform as needed, with ease, speed, and availability at any time and from any location [13]. The system must exhibit stability and reliability, devoid of frequent crashes during operation [14]; 2) System Efficiency, facilitating customers' ease of use, uncomplicated navigation, and capability to fulfill diverse customer needs effectively [15]; and 3) System Privacy, safeguarding customers' personal information and instilling trust by ensuring that personal data remains secure and is not disclosed to external entities [15]. In summary, Platform Quality necessitates utility, readiness for use, reliability, adaptability, and prompt responsiveness.

Interaction Quality is an indicator of the quality of interactions between service providers and service users through platform channels [16]. Person-to-person interaction significantly influences user satisfaction and interest in platform technology [17]. Interaction Quality comprises three sub-components: 1) Cooperation, reflecting the willingness of platform providers to offer services promptly without prolonged waiting times for users [18]; 2) Confidence, indicating the level of service assurance provided by providers to users, crucial for establishing credibility and trust [19]; and 3) Care, demonstrating providers' attentiveness to individual user needs and their ability to respond accordingly [19]. Comprehensive and quick provision of product and service information during interaction activities invariably enhances users' perception of the benefits derived from mobile application use [20].

Information Quality entails providing content suitable for all users and comprises two sub-component: 1) Utilitarian Benefits, denoting the platform's provision of practical and relevant information that effectively addresses users' needs [21]; and 2) Hedonic Benefits, referring to information that elicits enjoyment and positive emotions, fostering user engagement and desire to utilize the platform [14]. Trust ensues when customers comprehend the service provider and believe in their ability to meet their needs by furnishing accurate and regularly updated information. The delivery of highly efficient information, encompassing usefulness, accuracy,

completeness, and timeliness, further enhances credibility [22], complementing users' perceptions of usefulness and ease of use of the system [23].

Personalized quality indicates the product or service that can offers more personalized product or service [24]. Successful personalization depends on two factors: 1) The consumer's capacity to access and process information; and 2) The consumer's willingness to share information and utilize personalized services [25]. Offering personalized content and services tailored to users' preferences and behavior is crucial and advantageous [26], influencing users' perception of the benefits derived from usage. When users are aware that the presentation system of products and services has been presented precisely and meets their needs, it will motivate and interest the users in using the application. When users have a fun and enjoyable experience, this leads to a greater intent to purchase the products or services [27].

Regarding the influence of perception on application acceptance, the Technology Acceptance Model (TAM) was introduced by Davis (1989) [28] and has since been extensively utilized to forecast and elucidate consumer behavior towards innovation and technology acceptance. Within the beauty service industry, it has been observed that emotional factors, particularly the aspect of Perceived Aesthetics, remain underrepresented, despite their significance for mobile applications in aesthetic clinics.

Perceived Usefulness refers to the belief that the use of technology will enhance one's working performance [29]. The extent to which an individual perceives the technology in use to increase performance and effectiveness of their daily activities in a timely manner [30]. The traditional Technology Acceptance Theory of Innovation, Technology Acceptance Model and the Modified Models of TAM have also confirmed the reliability and validity of the perception of the benefits of using this as a predictor of consumers' willingness to use technology [31]. Perceived Usefulness in the context of mHealth is the perception of users who believe that their use of health applications will provide them with benefit or advantage [32]. For aesthetic application, offering services that help customers access better health and beauty information has a positive effect on customers' perceived benefits of using platform services [22]. When customers perceive that a platform is beneficial and enhances their lifestyle, resulting in an overall improvement in their quality of life, they are more inclined to adopt and utilize the platform technology [12].

Perceived Ease of Use refers to users' perception that technology is straightforward and does not demand significant effort to use [29]. Perceived Ease of Use is an important factor that influences customers to consider and decide whether to use the technology or not [12]. The difficulty of use is considered an obstacle that will make customers choose not to use the application, except for the applications that benefit users at a high level. Otherwise, customers tend to focus on applications that are easy to use. General tasks such as browsing, data collection, and conducting various transactions should be user-friendly and straightforward. Perceived Ease of Use plays a crucial role in encouraging customers to utilize the application, as it enhances their overall experience and reduces barriers to usage [33]. The distinction between mHealth services and traditional health and medical services hinges on the availability of internet connectivity and the type of mobile device utilized to access the service [34]. The application must retrieve, upload, or easily download information within the system designed with accessibility in mind. Ultimately, the ease of use will have a positive impact on consumer encouragement in using of the application while also affect the Perceived Usefulness of the application [22].

Nowadays, communication through mobile phone screens has surpassed face-to-face interaction. Despite the increasing concerns among mobile phone users regarding privacy and security issues, they remain vulnerable to the risks associated with mobile devices, impacting their decision-making process in utilizing mobile services [35]. Consequently, the significance of trust emerges as a paramount factor that online platform providers cannot afford to overlook [36]. Credibility plays a pivotal role in shaping customers' perceptions of risks and concerns. Previous research has identified trust as a key determinant of intent to utilize online platform services [34], particularly mHealth platforms, which is one of the most important elements. It has been found that trust is an important factor linking satisfaction and intent to use applications [37].

Aesthetics, first introduced by the German philosopher Alexander Gottlieb Baumgarten in 1753, extends beyond the realm of art to encompass perceptions in everyday life, reflecting a broader scope. It encompasses three primary categories: sensory perception, beauty, and taste [38], involving an evaluation based on individuals' feelings towards concepts such as beauty, harmony, or excellence. The appreciation of aesthetics is influenced by various factors, including evolutionary, anatomical, and physiological limitations, as well as cultural influences

throughout history [39]. Aesthetics embodies the pure emotions evoked in a moment, arising from interactions with objects or phenomena perceived as beautiful, enduring, and pleasurable. Therefore, aesthetic response refers to an individual's reaction to an object, such as a product, based on their perception of it. These responses can manifest as either conscious or unconscious reactions to stimuli such as color and shape, eliciting sensations or pleasure [40].

The Technology Acceptance Model (TAM) has garnered widespread usage in comprehending the adoption and utilization of diverse technologies across various domains. However, there exists limited research concerning the application of TAM within the aesthetic clinic setting in Thailand. While studies have explored TAM's relevance in contexts such as healthcare interventions [41], automated vehicles [42], and electronic medical records [43], no explicit references have been made to its application within the realm of aesthetic clinics in Thailand. Consequently, there exists a notable research gap pertaining to understanding the factors influencing the acceptance and utilization of technology in this specific context.

Further investigation is necessary to explore the suitability of TAM within the aesthetic clinic context in Thailand and to identify the factors that may shape the intention to use technology in this setting. Such research endeavors would contribute valuable insights to inform the development and implementation of technological solutions tailored to the unique needs and dynamics of aesthetic clinics in Thailand.

In light of this, this study attempts to fill the research gap in the existing literature by developing a research model to identify the antecedents that affect customer adoption of the aesthetic clinic mobile application. Regarding the research significance and value of this method, it was employed to address the following research questions (RQs):

1. What service quality factors influence customers to use aesthetic clinic application?
2. How does perception value mediate the relationship between service quality and Adoption Intention?

To achieve this, an integrated research framework has been devised, encompassing the Technology Acceptance Model (TAM) facets: Perceived Usefulness, Perceived Ease of Use, Perceived Trust, and Perceived Aesthetics; along with mHealth service quality components: Platform Quality, Interaction Quality, Information Quality, and Personalized Quality. These comprehensive framework serves to augment existing knowledge by introducing Personalized Quality within mHealth service quality and by incorporating Perceived Aesthetics into the TAM model. The goal is to enhance the model's comprehensiveness in technology acceptance and evaluate the online aesthetic clinic applications. This research holds potential to equip aesthetic clinics with a competitive edge in the market, ensuring their sustained success [44].

According to the above discussion in the literatures, the following hypotheses are proposed:

Service Quality

H1: Platform Quality has a positive impact on Perceived Usefulness.
H2: Platform Quality has a positive impact on Perceived Ease of Use.
H3: Platform Quality has a positive impact on Perceived Trust.
H4: Platform Quality has a positive impact on Perceived Aesthetics.
H5: Interaction Quality has a positive impact on Perceived Usefulness.
H6: Interaction Quality has a positive impact on Perceived Ease of Use.
H7: Interaction Quality has a positive impact on Perceived Trust.
H8: Interaction Quality has a positive impact on Perceived Aesthetics.
H9: Information Quality has a positive impact on Perceived Usefulness.
H10: Information Quality has a positive impact on Perceived Ease of Use.
H11: Information Quality has a positive impact on Perceived Trust.
H12: Information Quality has a positive impact on Perceived Aesthetics.
H13: Personalized Quality has a positive impact on Perceived Usefulness.
H14: Personalized Quality has a positive impact on Perceived Ease of Use.
H15: Personalized Quality has a positive impact on Perceived Trust.
H16: Personalized Quality has a positive impact on Perceived Aesthetics.

The mediating roles of Perceived service value

H17: Perceived Usefulness has a positive impact on Adoption Intention
H18: Perceived Ease of Use has a positive impact on Adoption Intention.
H19: Perceived Trust has a positive impact on Adoption Intention.
H20: Perceived Aesthetics has a positive impact on Adoption Intention.
H21: Perceived Ease of Use has a positive impact on Perceived Usefulness.

III. METHODOLOGY

A. Development of questionnaire

Based on the conceptual definition, this research employs service quality that consist of four factors: Platform Quality, Interaction Quality, Information Quality, and Personalized Quality. In addition, it also uses perceived service value which consists of Perceived Usefulness, Perceived Ease of Use, Perceived Trust, and Perceived Aesthetics. Moreover, Adoption Intention is regarded as a one-dimensional construct, measurable through reflection.

A set of items was created based on a review of the literature. The self-developed questionnaire underwent evaluation by experts to ascertain whether each item effectively captured a specific aspect of the construct's content domain and whether, as a collective set, the items adequately represented the entirety of the construct's content domain. Three professionals were invited to assess and rate the questionnaire. Following the collection of feedback and comments, the questionnaire was revised accordingly based on the judgment and insights obtained from the expert evaluation process.

The constructs in this study are "Platform Quality" (PFQ, 6 items), "Interaction Quality" (ITQ, 6 items), "Information Quality" (IFQ, 6 items), "Personalized Quality" (PSQ, 4 items), "Perceived Usefulness" (PU, 3 items), "Perceived Ease of Use" (PEOU, 4 items), "Perceived Trust" (PTRU, 3 items), "Perceived Aesthetics" (PA, 5 items) and "Adoption Intention" (AI, 3 items). All items are measured using a 5-point Likert Scale bounded by "most important" (5) and "least important" (1).

B. Sample size and data collection

The sample of the research was a customer group of aesthetic clinics in Thailand, aged 18 years and above. Due to the number of the population is large and the exact number is unknown, therefore, the method of non-probability sampling is selected, and the purposive sampling method was used with the sample customers specified above. Using the method of calculating the sample size from the method of Hair et al. [45], which calculated 500 cases. This study obtained 529 valid questionnaires that examine the service quality that affects the acceptance of the aesthetic clinic application in both online and offline formats. The sampling method involved distributing online questionnaires to sample groups across Thailand. Cooperation was sought from aesthetic clinics nationwide to disseminate the questionnaires to their customers. Additionally, authorized locations were designated to collect questionnaires in accordance with relevant regulations.

C. Measurement construct

A two-step approach to data analysis was employed, comprising the following steps:

1. SPSS and Lisrel 8.8 were utilized to assess the measurement models.
2. Path Analysis was conducted to examine the direction and strength of the hypothesized relationships within the model.

a) Test of measurement model

Dataset collected from the questionnaires indicated that the total confidence of the latent variables, composite reliability (CR), average variance extracted (AVE), and analysis of construct validity were to be used to check the values of factor loading of each questionnaire item from Table I. For the measurement model of the four service quality attributes, the factor loadings of the corresponding potential variables ranged from 0.67 to 0.90. Similarly, the factor loadings of the four perceived values ranged from 0.79 to 0.91, while the factor loadings of items

measuring intention to use ranged from 0.89 to 0.93. All factor loadings exceeded the threshold of 0.50, indicating that the questionnaire demonstrated structural validity.

TABLE I.   RESULTS OF RELIABILITY AND VALIDITY TESTS.

	Description of items	Factor Loading	CR	AVE
PFQ	PFQ1. The application can be used whenever you want.	0.90	0.956	0.665
	PFQ2. The application works quickly.	0.77		
	PFQ3. The application has a systematic structure that is not complicated.	0.77		
	PFQ4. The application has a personal data security system.	0.75		
	PFQ5. The application has an appointment reminder system.	0.67		
	PFQ6. The application is stable, and not easy to crash.	0.82		
ITQ	ITQ1. Doctors and staff can advise and help me.	0.83	0.963	0.678
	ITQ2. Doctors and staff are attentive.	0.83		
	ITQ3. Doctors and staff provide sincere service.	0.81		
	ITQ4. Doctors and staff can provide services on time.	0.84		
	ITQ5. Doctors and staff follow up regularly.	0.83		
	ITQ6. I feel safe talking to doctors and staff through the app.	0.85		
IFQ	IFQ1. The application contains information that meets the requirements.	0.82	0.961	0.667
	IFQ2. The application contains useful information.	0.79		
	IFQ3. The application contains interesting information.	0.84		
	IFQ4. The application contains information to enjoy.	0.79		
	IFQ5. The application always has updated information.	0.85		
	IFQ6. The application contains data in the form of VDO.	0.85		
PSQ	PSQ1. I received a service that suited my needs.	0.90	0.924	0.692
	PSQ2. I can adjust my service appointment.	0.81		
	PSQ3. I can adjust the virtual image to see the results before deciding to use the service.	0.78		
	PSQ4. I can view my medical history.	0.87		
PU	PU1. The application allows me to talk to doctors and staff immediately.	0.80	0.876	0.702
	PU2. The application saves me time when going to a Aesthetic clinic.	0.81		
	PU3. The application that saves me the cost of going to a aesthetic clinic.	0.90		
PEOU	PEOU1. The application is easy to use.	0.88	0.945	0.769
	PEOU2. The application is simple to use.	0.87		
	PEOU3. I can use the application by myself	0.88		
	PEOU4. I don't need time to learn.	0.84		
PTRU	PTRU1. I feel confident talking to doctors and staff through the app.	0.91	0.922	0.798
	PTRU2. I feel confident in getting the right service.	0.89		
	PTRU3. I feel confident that I receive a secure service.	0.88		
PA	PA1. The application has a beautiful composition and appearance.	0.88	0.952	0.701
	PA2. The application is colorful and beautiful.	0.84		
	PA3. I am satisfied seeing my own Before/After results.	0.79		
	PA4. I enjoy talking to doctors and staff through the app.	0.81		
	PA5. I enjoy using the app.	0.88		
AI	AI1. I intend to use a aesthetic clinic application.	0.92	0.938	0.834
	AI2. I tend to use aesthetic clinic applications.	0.93		
	AI3. I will recommend my friends or acquaintances to use the aesthetic clinic application.	0.89		

For the total confidence value of latent variables (CR), each question was greater than 0.60 for all values. The highest value was 0.963 and the lowest was 0.876 and the extracted mean-variance (AVE) is greater than 0.50, with the highest being 0.834 and the lowest being 0.665. Therefore, it can be concluded that all questionnaires' latent variable data are high quality and have high reliability as well as convergent validity.

Discriminant validity is to check that all variables are different and unique, without redundant with other variables, which can be done by comparing the average variance extracted (AVE) with the squared correlation coefficient (r^2) [45]. If the AVE value is greater than r^2, then the pair variables have different validity values. According to Table II, the value in the lower left triangle is the correlation coefficient, while the value in the upper right triangle is the squared correlation coefficient (r^2). Which is used to compare with the AVE value in determining differential validity. The differential validity analysis revealed that the AVE of each latent variable was greater than the squared correlation coefficient of each pair. Thus, it can be concluded that the structures are easily distinguishable from each other.

TABLE II.   INTERCONSTRUCT CORRELATION MATRIX AND DISCRIMINANT VALIDITY

	AVE	PFQ	ITQ	IFQ	PSQ	PU	PEOU	PTRU	PA	AI
PFQ	0.665	0.815	0.050	0.004	0.031	0.090	0.089	0.081	0.069	0.088
ITQ	0.678	0.224**	0.823	0.015	0.030	0.106	0.089	0.119	0.099	0.091
IFQ	0.667	0.063	0.124**	0.817	0.023	0.136	0.131	0.095	0.094	0.158
PSQ	0.692	0.176**	0.173**	0.152**	0.832	0.102	0.142	0.076	0.068	0.110
PU	0.702	0.300**	0.326**	0.369**	0.319**	0.838	0.263	0.116	0.166	0.378
PEOU	0.769	0.298**	0.298**	0.362**	0.377**	0.513**	0.877	0.110	0.107	0.270
PTRU	0.798	0.284**	0.345**	0.308**	0.276**	0.340**	0.332**	0.893	0.098	0.250
PA	0.701	0.263**	0.314**	0.307**	0.260**	0.407**	0.327**	0.313**	0.837	0.312
AI	0.834	0.297**	0.301**	0.398**	0.332**	0.615**	0.520**	0.500**	0.559**	0.923
$\bar{X}$		4.110	4.023	3.969	4.070	4.071	4.051	4.050	4.037	3.679
SD		0.629	0.707	0.740	0.722	0.802	0.761	0.767	0.724	1.018

Note: ** Correlation is significant at the 0.01 level (2-tailed)

b) Test of structural model

To verify the conformity of the structural equation model, the examination of the data coherence indicator index with Chi-Square = 718.35, p-Value = 0.060, RMSEA = 0.013, NFI = 0.98, CFI = 1.00, IFI = 1.00, and RFI = 0.97 has been established, which assumed that the model had consistency with literature and clinical data manifested through the specified criteria.

IV. RESULTS

Descriptive characteristics of the sample are presented in Table III. Out of 529 respondents, 20.79% are male and 79.21% are female. Most respondents are in the 30-39 years age range (40.27%). Most respondents have a bachelor's degree (69%), 26.47% have a postgraduate degree, and 4.54% have an undergraduate degree. The largest percentage of respondents are employees of private companies (50.85%), followed by self-employed (15.12%) and student (12.48%). Most respondents with monthly income in the range of 25,000-49,999 Baht comprise 23.06% of the sample, followed by those with income in the range of 50,000-74,999 Baht (21.36%), and then those making less than 25,000 Baht (19.85%). For the behavior of the sample group in terms of receiving services at aesthetic clinics. Most of the samples received services at a aesthetic clinic 1-3 times a year (36.67%), followed by 4-6 times a year (28.92%) and 7-9 times per year (13.99%). Most of the sample groups traveled to get services at aesthetic clinics on average 31-60 minutes (40.83%), followed by 16-30 minutes (33.65%), and more than 60 minutes (15.88%). Overall, the sample showed good representation and high diversity.

TABLE III.   SAMPLE PROFILE

		Freg.	%			Freq.	%
Gender	Male	110	20.79	**Income**	< 25,000	105	19.85
	Female	419	79.21	**(Baht)**	25,000-49,999	122	23.06
					50,000-74,999	113	21.36
Age	<20	8	1.51		75,000-99,999	96	18.15
	20-29	160	30.24		=> 100,000	93	17.58
	30-39	213	40.27				
	40-49	109	20.60	**Number of**	Less than 1 time	59	11.15
	50-59	24	4.54				
	>=60	15	2.84	**receiving the**	1-3 times	194	36.67
				service	4-6 times	153	28.92
					7-9 times	74	13.99
Education	Undergraduate	24	4.54	**(time/year)**	=> 10 times	49	9.26
	Bachelor	365	69.00				
	Postgraduate	140	26.47	**Travel time**	<= 15 min	51	9.64
				(min)	16-30 min	178	33.65
Occupation	Student	66	12.48		31-60 min	216	40.83
	Government	48	9.07		> 60 min	84	15.88
	Self-Employed	80	15.12				
	Company employee	269	50.85				
	Housewife	19	3.59				
	Freelance	46	8.70				
	Other	1	0.19				

The results of the modified structural equation model analysis of factors affecting service quality on perception platform quality factor had the highest effect on perceived trust ($\gamma = 0.09^{***}$, $p < 0.001$), followed by perceived usefulness ($\gamma = 0.05^{***}$, $p < 0.001$), perceived aesthetics ($\gamma = 0.02^{**}$, $p < 0.01$) and perceived ease of use ($\gamma = 0.01^{***}$, $p < 0.001$). Therefore, H1-H4 is supported.

Interaction quality factor had the highest influence on perceived trust ($\gamma = 1.13^{***}$, $p < 0.001$), followed by perceived usefulness ($\gamma = 0.37^{***}$, $p < 0.001$), perceived aesthetics ($\gamma = 0.22^{***}$, $p < 0.001$) and perceived ease of use ($\gamma = 0.06^{***}$, $p < 0.001$). Therefore, H5-H8 is supported.

The information quality factor had the highest influence on perceived trust ($\gamma = 0.92^{***}$, $p < 0.001$), followed by perceived usefulness ($\gamma = 0.53^{***}$, $p < 0.001$), perceived aesthetics ($\gamma = 0.23^{***}$, $p < 0.001$) and perceived ease of use ($\gamma = 0.11^{***}$, $p < 0.001$). Therefore, H9-H12 is supported.

Personalized quality had the highest influence on perceived trust ($\gamma = 0.59^{**}$, $p < 0.01$), followed by perceived usefulness ($\gamma = 0.35^{**}$, $p < 0.01$), perceived aesthetics ($\gamma = 0.15^{*}$, $p < 0.05$) and perceived ease of use ($\gamma = 0.10^{***}$, $p < 0.001$). Therefore, H13-H16 are supported.

In terms of the mediator perception factor, the perceived ease of use factor ($\beta = 0.14^{***}$, $p < 0.001$) had the highest influence on the acceptance of the aesthetic clinic application, followed by perceived aesthetic factor ($\beta = 0.07^{***}$, $p < 0.001$), perceived usefulness ($\beta = 0.05^{***}$, $p < 0.001$) and perceived trust ($\beta = 0.01^{**}$, $p < 0.01$) and the perceived ease of use influenced the perceived usefulness ($\beta = 2.11^{***}$, $p < 0.001$). Therefore, H17-H21 is supported.
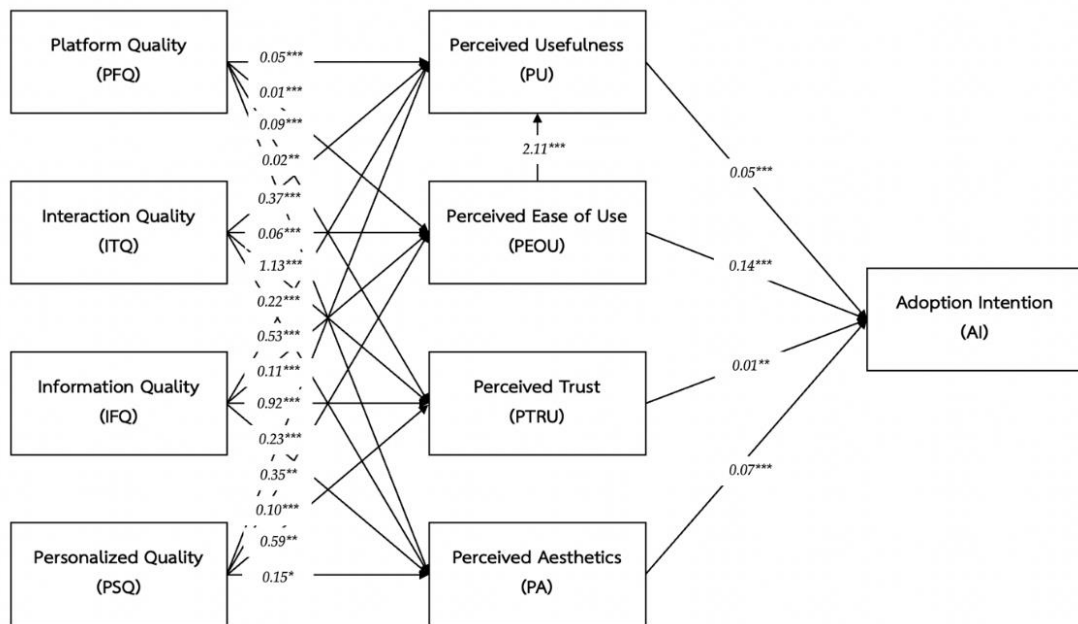
Figure 1.   Results of structural model analysis. Significant: ***p<0.001, **p<001, *p<0.05

V.   DISCUSSION

This study aimed to investigate the relationship between aesthetic clinic service quality, perceived value, and their influence on Adoption Intention, thus exploring factors affecting the acceptance of use. Data were collected from customers of aesthetic clinics in Thailand, comprising 529 individuals aged 18 years and above. The study verified the formative structure of aesthetic clinic application by using the Lisrel program to analyze the relationship between the variables and test the proposed concept model with Structure Equation Modeling (SEM).

Results from hypothesis testing provided evidence that the four service quality dimensions positively impact the four perceived value dimensions, which in turn influence the adoption of the application. Specifically, the study examined the service quality factors of the aesthetic clinic application, consisting of 4 indicators: Platform Quality, Interaction Quality, Information Quality, and Personalized Quality. Additionally, the four mediators of perceived value were assessed: Perceived Usefulness, Perceived Ease of Use, Perceived Trust, and Perceived Aesthetics. Notably, Perceived Aesthetics was included in consideration due to its absence in prior studies.

Among the service quality variables, Information Quality emerged as a significant contributor to Perceived Usefulness, Perceived Ease of Use, and Perceived Aesthetics, underscoring its importance. In terms of perceived trust, it was found that interaction quality was the most influencing factor. It is consistent with the study of Wu and Chang [46], indicating that interaction quality is the foundation and key factor of trust. The results of the hypothesis testing confirm the studies of Wan-I [47] and Oppong et al. [21] that the factors of platform quality, interaction quality, and information quality help improve and develop service quality and positively affect satisfaction in using application services. Additionally, this study also found that personalized quality is an important factor in accepting the use of Aesthetic clinic applications as well. Therefore, it can be concluded that all 4 service quality factors are important in enhancing service quality and affect the acceptance of the application.

Regarding mediator variables, Perceived Usefulness, Perceived Ease of Use, and Perceived Trust were found to positively impact application acceptance, consistent with the studies of Li et al. [22] and Deng et al. [34] which studied how the quality of health services affects adoption and identified service quality factors as stimulating three perception aspects that also have positive impacts on the adoption of the application. From this study, it was found that perceived aesthetics is another important factor affecting application acceptance. This is confirmed by previous studies on application acceptance, but lacks in the emotional factor, especially in terms of perceived aesthetics, which can be confirmed by this study. Aesthetics is another important factor in terms of perceived value that should be considered as a critical role in predicting adoption intention, especially in the beauty industry. Finally, as

hypothesized, adoption intention is a consequence of service quality and perceived value. Significantly affects the acceptance of the aesthetic clinic application.

VI.   CONCLUSION

This research aimed to enhance knowledge and comprehension regarding service quality factors influencing the acceptance of aesthetic clinic applications and to provide insights for the development of such applications for aesthetic clinic operators. Entrepreneurs can leverage innovative aesthetic clinic applications to expand their customer base, retain existing customers, and enhance customer satisfaction, thereby gaining a competitive edge and ensuring sustainable profitability in an ever-changing and fast-paced environment.

Findings from the study underscored the significance of all four service quality dimensions (Platform Quality, Information Quality, Interaction Quality, and Personalized Quality) in influencing the acceptance of Aesthetic clinic applications. Particularly, Information Quality emerged as a pivotal factor with the greatest impact on perception. Among the four perceived value factors (Perceived Usefulness, Perceived Ease of Use, Perceived Trust, and Perceived Aesthetic), Perceived Trust exhibited the highest susceptibility to influence by all service quality dimensions, significantly affecting application acceptance. Additionally, Perceived Ease of Use and Perceived Aesthetics were found to exert the most positive impact on application acceptance, respectively. Thus, this research underscores the importance of considering Perceived Aesthetics in future studies on the acceptance of beauty-related applications.

However, this study has its limitations. Firstly, the investigation focused solely on the acceptance of applications among a sample of aesthetic clinic customers within a specific demographic (Thai users aged 18+) in a single country. Future research should aim to explore the generalizability of findings across diverse cultural backgrounds and age groups. Secondly, the reliance on self-reported data may introduce biases such as social desirability bias.

Future research endeavors could delve into the specific design elements influencing Perceived Aesthetics in mHealth apps for aesthetic clinics. Furthermore, investigating the long-term effects of Perceived Aesthetics on user engagement and app retention would be beneficial. Moreover, comparing the proposed Aesthetic-Based TAM framework with other user acceptance models in the context of mHealth could provide insights into its relative explanatory power. Addressing these limitations and pursuing these future research avenues can offer a more comprehensive understanding of user adoption in the mHealth domain of aesthetic clinics, particularly emphasizing the critical role of Perceived Aesthetics.

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