

The Antecedent of Student Expectation in Higher Education Service and The Moderating Role of Campus Locations*

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Received: May 25, 2019
 Revised: August 7, 2019
 Accepted: August 13, 2019

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Abstract

The objective of this study is to examine the roles of various sources of information as the antecedents of student expectation on higher education service and to examine the moderating effect of campus location. Using structural equation modeling, the empirical results based on a representative sample of 434 undergraduate students reveal that personal needs, price, and word of mouth significantly affect student expectation on higher education service. The implications of these results suggest that university marketing communication team should keep in mind that investment on other drivers is unlikely to manipulate student expectation. They should focus more heavily on student internal desire and pricing strategies. They should also build personal connections with student's family members and friends as they are the key influencer. Campus location significantly moderates the relationship between

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price and expectation. It is suggested that university could segment student according to geographical locations and socioeconomic status of that region in their marketing communication.

Keywords: Expectation; Service Quality; Higher education; Thailand

บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาบทบาทของแหล่งข้อมูลข่าวสารที่ส่งผลต่อความคาดหวังของนักศึกษาในการบริการการศึกษาระดับอุดมศึกษาและศึกษาผลกระทบปัจจัยกระตุ้นสถานที่ตั้งของมหาวิทยาลัยโดยใช้แบบจำลองสมการโครงสร้าง ทำการเก็บรวบรวมข้อมูลจากกลุ่มตัวอย่างด้วยชั้งเป็นนักศึกษาระดับปริญญาตรีจำนวน 434 คน ผลการวิจัยพบว่า ความต้องการส่วนบุคคล ราคา และการบอกรสึกต่อปากส่งผลอย่างมีนัยสำคัญทางสถิติต่อความคาดหวังของนักศึกษาต่อบริการของมหาวิทยาลัย ผลการวิจัยแสดงให้เห็นว่า หน่วยงานด้านการสื่อสารทางการตลาดของมหาวิทยาลัยควรตระหนักร่วมกับการบริหารจัดการปัจจัยอื่นไม่สามารถส่งผลต่อความคาดหวัง มหาวิทยาลัยจึงควรให้ความสำคัญกับความต้องการส่วนบุคคลของนักศึกษาโดยทุกรายการกำหนดราคา รวมถึงการสร้างความสัมพันธ์ที่ดีกับสมาชิกในครอบครัวและเพื่อนของนักศึกษาเนื่องจากเป็นผู้มีอิทธิพลหลักต่อความคาดหวัง สำหรับบทบาทการเป็นปัจจัยกระตุ้นอย่างมีนัยสำคัญทางสถิติของที่ตั้งมหาวิทยาลัยต่อความสัมพันธ์ระหว่างราคาและความคาดหวังแสดงให้เห็นว่ามหาวิทยาลัยควรแบ่งกลุ่มนักศึกษาโดยดำเนินการสื่อสารทางการตลาดด้านค่าใช้จ่าย แบ่งตามที่ตั้งสถานที่ทางเศรษฐกิจ และสภาพแวดล้อมทางสังคมของแต่ละภูมิภาค

คำสำคัญ : ความคาดหวัง คุณภาพการบริการ อุดมศึกษา ประเทศไทย

Introduction

The higher education section has become a global business and universities must continuously explore options for exporting higher education services. In recent years, Thailand's higher education market has been shrinking for many years due to a demographic transition from high to low levels of fertility. Thai universities are at risk of closing over the next decade due to low enrolment and increased competition from foreign rivals (Mala, 2017). These changes affect how higher education institutions operate. They are the driving forces for the marketization of higher education (Maringe, 2006). The intensified competition at institutional, national and international level requires new operating modes through the adoption of more integrated marketing approaches and business-like forms of operation within higher education institutions (Sizer, 2001). The move of the university from a service profile to a market profile has caused significant concern for academics and university policymakers.

Service quality management is crucial to the sustainability of education in higher education, especially, in globalization which is a vital challenge to business education. In the education sector where no true products are involved; service provided will represent the competitive differentiation between universities in terms of their superiority in creating educational experiences (Khodayari & Khodayari, 2011). For instance, the privatization of higher education and cost sharing through the introduction of tuition fees in many European countries have increased the need to consider students' expectations (Voss, Gruber, & Szmigin, 2007). However, in both developed and developing countries, many educational institutions have failed to provide services up to the expectation of their students (Ilyas, Nasir, Hussain, Malik, Munir, & Sarwar, 2013). Past research shows that students who ultimately withdraw from higher education, their decision usually can be traced to the first few weeks of enrolment and the expectations they possessed (Yorke, 2000). Some evidence indicated that there were negative gaps in service quality perceptions between students and lecturers (Mosahab, Mahamad, & Ramayah, 2010). This difference between the students' expectations and the experience that institutions are prepared to offer may arise because students have unrealistic expectations of what will transpire during their time at university; it may also arise because of misunderstandings associated with the information provided by the institution about its culture or because the institution is simply unaware of the students' expectations. University lecturers and service providers may make erroneous assumptions about students' needs, as universities tend to provide information to students based on the institutions' expectations, not those of the student (Pithers & Holland, 2006).

In addition, the interpretation which consumers place upon the term 'expectations' is an important consideration because judgments of service quality may be influenced by the type of expectation upon which consumer evaluation is based. Information concerning factors which influence the formulation and level of customer expectations should be of great interest to companies, as potentially such information will provide more opportunity to influence assessments of customer satisfaction and service quality (Devlin, Gwynne, & Ennew, 2002). Hence, it is very important for universities management to know the source of information influencing the student expectation and to understand the nature of the relationship among those factors. However, the antecedents of expectations have received little attention in the literature. Previous studies have examined expectation and source of information from a consumer's perspective. Less attention has been devoted to the examination of expectation within the higher education sector in Thailand context. To fill this literatures gap, the main focus

of this study is to examine the relationship between expectation and its antecedents from a university student perspective.

The article is structured according to the following sections. First, the research objectives are identified. Second, literature drawing mainly from the consumer behavior literature to provide an understanding of student expectation in higher education service, and from the services marketing literature to provide the contextual background on source of information as antecedents of expectation. Third, the theoretical framework is outlined. Followed by a description of the method used and results of the analysis. Finally, the conclusions are elaborated and end with sections on its theoretical and managerial implications.

Research Objectives

The objectives of this study are as follows:

1. To empirically test which of these antecedents i.e. past experience, personal needs, word of mouth, advertising, and price are the most influential antecedents of university student expectation of educational services.
2. To empirically test the moderating effect of campus locations on the relationship of student expectation and its antecedents i.e. past experience, personal needs, word of mouth, advertising, and price.

Literature Review

1. Expectation in higher education service

Services show special characteristics that require a particular marketing strategy application (Kotler & Fox, 1995). In general, services are intangible, heterogeneous, perishable, and require simultaneous production and consumption (Parasuraman, Zeithaml & Berry, 1985). Consumers usually associate intangibility with the high level of risk. Thus, intangibility hinders the communication of services to the customer (Rathmell, 1966). On the other hand, a number of services are provided as part of a pack of services (Zeithaml, Parasuraman, & Berry, 1985). A group of services is made up of core and auxiliary services (Norman, 1984).

In general, auxiliary services are those offered to satisfy consumers' expectations. Thus, these services could be a highly significant way to differentiate among competitors (Maister & Lovelock, 1982). This significant phenomenon that links expectation to service quality is the disconfirmation paradigm. This paradigm suggests that prior to interaction, consumers form expectations about ensuring product/service experiences (Churchill & Surprenant, 1982; Tse & Wilton, 1988). Once formed, these expectations constitute standards against which actual performance is compared. Any discrepancy between the two produces a

mental state termed disconfirmation (Oliver, 1976). Based on the service quality gap model, they defined service quality as a function of the gap between customer expectation of service and their perceptions of the actual service delivered by an organization. Service quality is defined as a customer's general impression or attitude toward services they receive (Bitner, Bernard, & Tetreault, 1990). The most popular tool for measuring service quality is SERVQUAL (Parasuraman, Zeithaml, & Berry, 1988). It showed that service quality could be measured by the differences between expected and actual service delivery. They consolidated the ten variables proposed in 1985 to five broad dimensions which are Tangible (appearance of physical elements); Reliability (dependable, accurate performance); Responsibility (promptness and helpfulness); Assurance (competence, courtesy, credibility, and security); Empathy (easy access, good communication, and customer understanding).

Higher education is a pure service and is characterized by a greater amount of interpersonal contact, complexity, divergence, and customization than other service businesses (Patterson, Romm, & Hill, 1998). Most of the quality attributes in higher education cannot be perceived, felt, or tested in advance. For higher education, quality may vary markedly according to different circumstances: from year to year, class to class, student to student, lecturer to lecturer (Patterson et al., 1998; Owlia & Spinwall, 1996); and even within different countries (Srikatanyoo & Gnoth, 2002). Furthermore, service quality has different meanings for different consumers. One of the peculiarities of education services is that, during the first step of the internationalization process, the service must be provided at the host country. In this way, future students will receive a pack of services comprising a core service, the main education service; some auxiliary services, related to education activities at the host institution; and a pack of secondary services, in this case, related to their stay at the host country and the host city (Gronroos, 1994). In international education, there are several groups of secondary services. The prospective student will consider various aspects related to living in the host country such as safety, security, cultural activities, international background, and university.

2. Antecedents of service expectation

To manage expectations, it is important to evaluate the influence of key antecedents. Zeithaml, Berry, and Parasuraman (1993) developed a number of antecedent factors. They suggest that consumers' levels of expectations are dependent upon four main antecedents. These antecedents are explicit service promises, implicit service promise, word of mouth and past experience. The first set of antecedents to affect expectations are explicit service promises, which include advertising, contracts and other communications. Formal

communications from various sources are stressed in all the pieces of exploratory work in this area. Johnson and Mathews (1997) emphasize the importance of communications through advertising and leaflets as well as related articles in magazines and newspapers that relate to the customer the company ideals. Deighton (1984) believes advertising affects the way customers interpret ambiguous evidence concerning service quality. If evidence of the quality of a company's service is highly ambiguous, customers will place much more emphasis on advertising, thus increasing its impact. They suggested the second antecedent is implicit service promises as a possible antecedent of expectations which includes tangibles and price. The next presumed influence on expectations is the effect of pre-purchase contact between the customer and the company or past experience. It should be noted that past experience may extend beyond the experience of a particular service provider to a class of services or similar (Zeithaml & Bitner, 2000). In addition, word of mouth, both personal from friends and relations and expert in the form of informed opinion from journalists, etc., was also posited to be an important antecedent of expectations by Zeithaml et al. (1993). Other authors have also identified the importance of word of mouth e.g. George and Berry (1981); Donnelly (1980); Parasuraman et al. (1985). Hence, it seems reasonable to expect that word of mouth will influence various classes of expectations.

There are also a small number of antecedents which are suggested by Zeithaml and Bitner (2000) to impact expectations. The first of these is personal needs, in terms of the physical, social and psychological desires of the consumer. Individuals want different things from the service and their relationship with the service provider, needs which are often dictated by their past experience, personality and relationships with others. So, for example, a customer with high social and dependency needs may have higher expectations of the relationship and support they desired be able to expect from their service provider. Finally, customer expectations are influenced by the customer's expectations, or their personal service philosophy (Zeithaml et al., 1993). Individuals have underlying attitudes concerning the meaning of the service and the proper conduct of service providers.

Johnson and Mathews (1997) are in broad agreement with Oliver (1980) and Zeithaml et al. (1993), found that expectations were determined by the context of the consumer, communications between customer and company, and elements of the service which could be assessed prior to purchase. Beales, Michael, Steven, and Richard (1981) describe two general categories of a search for information about product quality: external search and internal search. External search includes product information acquired through

outside sources; the information can be acquired. Research has determined that various forms of information play a role in determining expectation. Potential customers have a myriad of information sources available when investigating their service provider. Sources of information are varied and, therefore, likely to comprise both organic (self-experience or non-commercial sources) and induced (advertiser message derived components) (Tasci & Gartner, 2007). Past research by Johnston (2010) has cited information sources such as brochures, friends, family, and personal experience as being highly ranked by university students. Similarly, Prugsamatz, Pentecost, and Ofstad (2006) has provided evidence that the three most influential sources of information on Asian students expectations of universities are: past experiences, advertising and word of mouth. The findings suggest that the information the student is exposed to; the higher the desired and predicted expectations of the university's service quality.

The consensus from the literature is that there is a range of factors which serve as antecedents of service expectations. Zeithaml et al. (1993) suggest that the expectations of predicted service are influenced by a subset of the antecedent factors, namely explicit service promises (advertising, personal selling, contracts, and other communications), implicit service promises (tangibles, price), word-of-mouth and past experience. They influenced not only by these factors, but also a wider range of antecedents, including the personal needs and personal service philosophy of the consumers (Devlin et al., 2002).

3. Rajamangala University of Technology Isan

The Rajamangala University of Technology Isan was established depending on Rajamangala University of Technology Act 2005 among the nine Rajamangala University of Technology. Rajamangala University of Technology Isan (RMUTI) focuses on developing occupations and technology with purposes of promoting academic and professions emphasizing practice, research, producing industrial technical education instructors, giving academic services in science and technology, maintaining arts and culture, and providing opportunities for students who finish vocational education to continue their study at degree levels. RMUTI comprises four campuses scattered around the Northeast of Thailand i.e. Nakhonratchasima, Surin Campus, Khon Kaen Campus, Sakon Nakhon Campus (Rajamangala University of Technology Isan, 2019).

Conceptual model

To fill in the gap of the past research, a model that includes the five important sources of information adapted from Zeithaml et al. (1993) and Devlin et al. (2002) as antecedents of expectation. To gain more insight information, this study also compares the effect of source of information on expectation among students in different campus locations. A mixed sample of university students in four campuses of Rajamangala University of Technology Isan located in four different locations in the Northeastern part of Thailand was used to test the hypothesized model. The following hypotheses were made in accordance with the model in Figure 1.

H1: Past experience, personal needs, word of mouth, advertising, and price directly affect university student expectation of educational services.

H2: Campus location moderates the effect of Past experience, personal needs, word of mouth, advertising, and price directly affect university student expectation of educational service

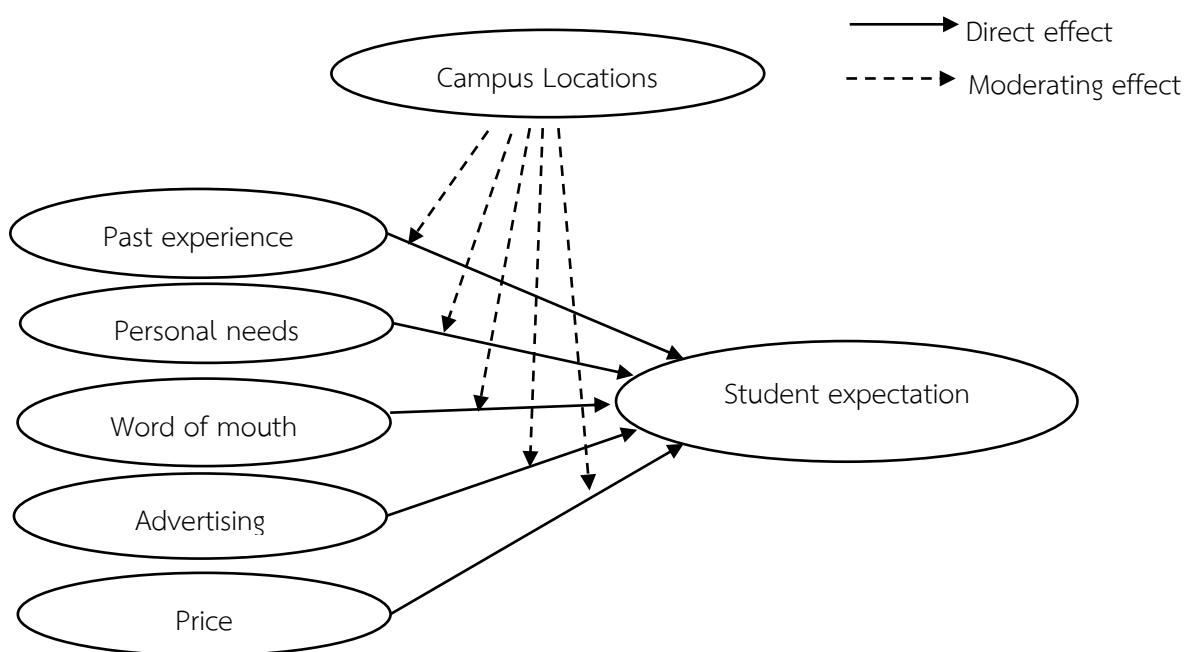


Figure 1: Hypo-theoretical model

Research Methodology

1. Data Collection

Once the questionnaire was developed based on a review of literature, an expert panel consisting of two academics and a student is used to evaluate its content validity. A pilot study was also performed to identify ambiguous items and assessed the reliability of the scales. Stratified random sampling was applied to ensure that the sample reflected, to the extent possible, the demographic profile of the population of students in RMUTI. The stratification has been done based on the campus including Nakhonratchasima, Khon Kean, Surin, and Sakon Nakhon as well as faculty. Four hundred and forty-three questionnaires were collected among first-year students in four campuses of RMUTI in 2017.

2. Analytical Procedure

Following an analysis of respondent characteristics, a two-step approach to structural equation modeling (SEM), as suggested by Anderson and Gerbing (1988) are used. In the first step, a confirmatory factor analysis (CFA) is performed to check and improve the reliability, convergent validity, and discriminant validity of the measurement items using composite reliability, average variance extracted (AVE), fit indices (CFI, GFI, and RMSEA) and the chi-square test (Bagozzi & Yi, 1988). In the second step, the initial structural model is estimated with all hypothesized relationships. The improved model is estimated to test the hypothesized relationships in the full model. Then, multiple group analysis (MGA) is applied to test the moderating effect of locations.

Results

1. Demographic Profile of Respondents

Table 1 summarizes the basic socio-demographic characteristics of the sample which are first-year students. The sample's characteristics show that the sample is generally distributed among groups. From Table 1, around 55% of the respondents were male while 45% were female. The percentage of students on four campuses is in accordance with the proportion of students in RMUTI. It could be concluded that these demographic statistics such as gender, campus, and faculty were balanced, consisting of various groups of students, thus reducing the possible bias of the sample.

Table 1: Socio-demographic characteristics of the sample

Characteristics		Respondents (N = 434)	Percentage
Gender	Male	240	55.3
	Female	194	44.7
Campus	Nakhonratchasima	179	41.2
	Khon Kean	127	29.3
	Sakon Nakhon	70	16.1
	Surin	58	13.4
Faculty	Engineering and Architecture ¹	79	18.2
	Business Administration ¹	50	11.5
	Science and Liberal Arts ¹	31	7.1
	Fine Arts and Industrial Design ¹	19	4.4
	Industry and Technology ²	40	9.2
	Business Administration and Information Technology ²	56	12.9
	Industrial Education ²	31	7.1
	Management Technology ³	30	6.9
	Agriculture and Technology ³	28	6.5
	Industry and Technology ⁴	52	12
	Natural Resource ⁴	18	4.2

Note: 1=Nakhonratchasima; 2 = Khon Kean campus; 3= Surin campus; 4= Sakon Nakhon campus

2. Measurement Validation

During CFA analysis, it is reported that all of the composite reliability values are above the recommended level of 0.60 (Bagozzi & Yi, 1988). The items loaded onto their assigned factors is ranging from 0.32-0.90. Observed variable Ad4 and Ad5 do not meet the criteria. Hence, the items with low factor loading were removed. AVE values ranging from 0.51-0.70 which are met the stipulated criterion of 0.5 (Hair, Black, Babin, Anderson & Tatham, 2006). In this study, the Goodness-of-fit Index (GFI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and Chi-square test were reported to indicate the degree to which the measurement model fit the data as suggested by Hair et al. (2006). Acceptable fit for the GFI and CFI require values over 0.9, while an acceptable fit for the RMSEA requires a value lower than 0.1 (Hair et al., 2006). The fit indices of the initial model

were not satisfactory, as GFI, CFI, and RMSEA do not meet the criterion ($\chi^2/df = 3.62$; $p = 0.00$; GFI = 0.86; CFI = 0.89; RMSEA = 0.08). Saris, Satorra, and Sorbom (1987) suggested that the model could be significantly improved by permitting the errors to correlate between items. Modification indices suggested that the model fit statistics could be improved by correlating items e10 and e11. As these two items are in the same construct, intuitive sense indicates that the two items are associated. In a similar vein, it was considered appropriate to re-estimate the model with the error covariance between other items specified as free parameters as shown in the modified measurement model. These steps proved beneficial, as the final measurement model was shown to have an acceptable fit to the data ($\chi^2/df = 0.064$; $p = 0.00$; GFI = 0.90; CFI = 0.93; RMSEA = 0.064).

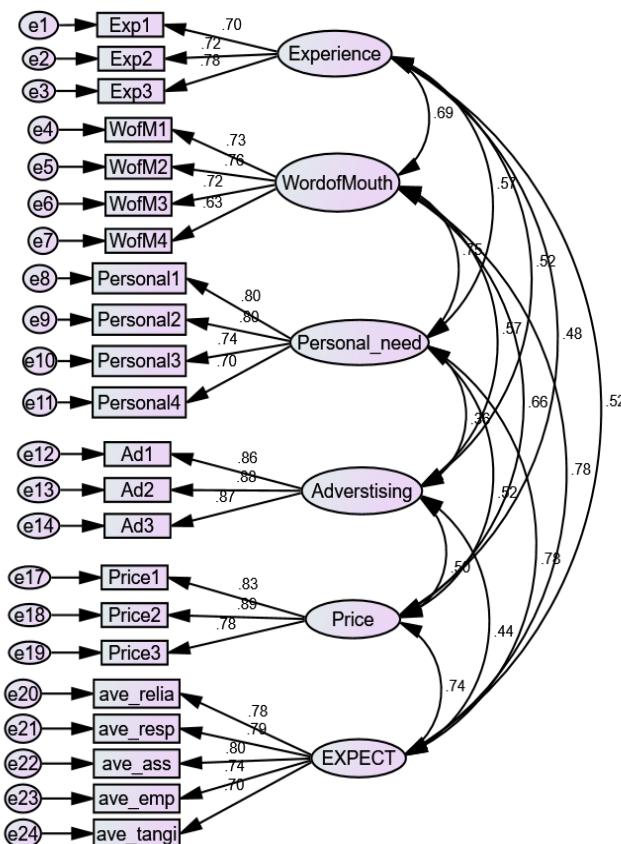


Figure 2: Initial measurement model

3. Structural Model

After validating the measurement model, the χ^2 value, GFI, CFI, and RMSEA were used to evaluate the fit of the structural equation model (see Table 2). The structural model demonstrated an acceptable fit to the data regarding the GFI and CFI indices (both were above the recommended level of 0.90). Its χ^2 / df is lower than the recommended level of 3. In addition, its RMSEA was beneath the acceptable level of 0.1 (Hair et al., 2006; Kline, 2005).

Table 2: Structural model fit statistics

Fit index	Criteria	Statistics	Results
χ^2 / df	< 3 (Hair et al., 2006)	2.388	Acceptable
GFI	> 0.90 (Hu & Bentler, 2006)	0.911	Acceptable
CFI	> 0.90 (Hair et al., 2006)	0.951	Acceptable
RMSEA	<0.1 (Hair et al., 2006)	0.057	Acceptable

$$R^2 = 0.78$$

Results of Hypothesis Tests

1. Direct effect

The results of the analysis illustrate that some sources of information are significant antecedents of student expectation in higher education service. Of these five hypothesized antecedents, three sources i.e. word of mouth, personal needs and price are significantly affected expectation (see Table 3 and Figure 3). Past experience and advertising do not exert a significant effect on student expectation. Among these three significant sources, personal needs exerted the strongest effect ($\beta = 0.44$) followed by price ($\beta = 0.38$) and word of mouth ($\beta = 0.27$) respectively at the 0.01 significance level. The strengths of these relationships (as indicated by standardized path coefficients) are indicated in Table 3. Therefore, the results provide partial support for H1.

Table 3: The significance of each hypothesized relationship in the model.

Hypothesized path	Standardized coefficients path	t value
Past experience → Expectation	-0.10	-1.727
Word of mouth → Expectation	0.27**	2.889
Personal needs → Expectation	0.44***	5.998
Advertising → Expectation	-0.01	-0.16
Price → Expectation	0.38***	6.941

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

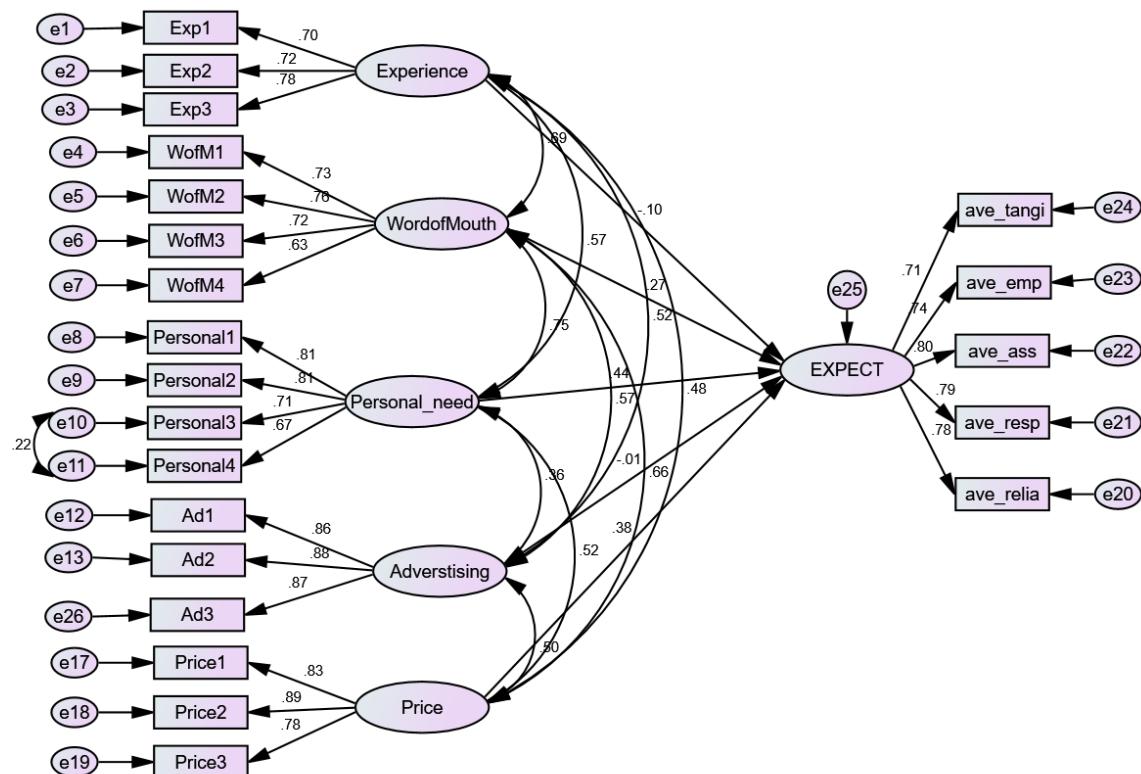


Figure 3: Structural model

2. Moderating effect of campus locations

To investigate significances in relationships among construct across campus locations, multiple group analysis was conducted using a $\Delta\chi^2$ -difference approach as suggested by Byrne (2013). The result revealed that campus locations significantly moderates the effect of price on expectation at 0.01 significant level. It is concluded that H2 is partially supported. The standardized path coefficients in table 4 indicate that the effect of price on expectation of students in Sakon Nakhon campus is significantly stronger than that of others. The size of the effect is followed by Surin campus, Khon Kean campus, and Nakhonratchasima campus respectively.

Table 4: Comparison of structural parameter estimates between campuses

Hypothesized relationship	Standardized path coefficients				$\Delta\chi^2$ (Δdf)	
	Moderating effect					
	NK (n= 179)	KK (n= 127)	SK (n= 70)	SR (n= 58)		
Price → Expectation	0.304	0.307	0.397	0.387	1.57(391) ***	

Notes: *** p < 0.01; NK= Nakhonratchasima; KK= Khon Kean; SK= Sakon Nakhon; SR= Surin

Discussion

Research examining the relationship between student's service expectation and its antecedents in Thailand are rare. The results of the study show that, in Thai higher education context, various source of information has a significant effect on student expectation. It is suggesting that student expectation is a result of students' perception of the information they received prior to their service encounters at the university. This information is offered by several sources both from the students' themselves and from the universities. The results indicate that personal needs have the strongest direct effect on expectation. The significant strong effect of personal needs on expectation informs university management to focus more heavily on student's personal value. This result is consistent with findings produced by Lee and Morrish (2012). They suggest that an understanding of the target audiences' norms and values would be a significant advantage to satisfy the expectation of student. Course advisors and student counselors should be trained about sensitivities of the different groups represented by the student. It is in agreement with Wikraisakda and Kittisaknawin (2019) who stated the current worldview of customers is a reflection of the perspective of living a person's

identity. The service business needs to design services that can meet the specific needs of customers.

The results of this study also indicate a strong effect of price on student expectation. It is suggesting that students' expectation of service quality in higher education are heavily contingent on their evaluations of what they received at the university, and the money they paid for it. This finding suggests that university management should also seek to improve students' perceptions of the service they receive from the money they spend at their universities. Lastly, word of mouth significantly affects student expectation. It is suggested that managing student expectation is quite difficult for the university. The information given by the university alone may not be sufficient for inducing student expectation. This strong effect of word of mouth is higher education in agreement with the results from Johnston's (2010) study on American students. He suggests that parents, along with other family and friends, were the most influential sources of information for university student. The insignificant role of advertising is in accordance with the finding of AGB (1992) that the most weakness perceived among many prospective international students is that higher education institutions' advertisement is not of high quality. Research into the advertising of services emphasizes that marketing communication in higher education requires a different approach to more conventional products (Legg & Baker, 1987).

The results of multiple group analysis suggest the significant moderating role of campus locations on the relationship between price and expectation. It suggests that students in Sakonnakorn and Surin campus are more likely to base their expectation on tuition fee and living expense they made in their study than the other two campuses. This difference could be explained by the socio-economic circumstances. According to Office of the National Economic and Social Development Council (2017), Gross Provincial Product (GPP) of Nakhonratchasima and Khon Kean is ranging between 110,000-117,000 baht per capita while Sakon Nakhon and Surin is ranging between 65,000-68,000 baht per capita. On the other hand, the analysis showed the insignificant difference in the hypothesized effects of word of mouth and personal needs on student expectation. This insignificant result may be due to the samples study in the same university and live in the same region. Though these students could be categorized according to campus locations, they share the same Thai collectivist cultural values which word of mouth is a popular source of information. The importance of word of mouth for Thai customers is supported by Leek and Chansawatkit's (2006) study on Thai customers in the

mobile phone industry. They found that family and friends are the most popular source of information being both credible and reliable for Thai customers.

Conclusion and Recommendation

Despite an extensive literature on the expectation, this study represents an attempt to explore the role of source of information as antecedents of student expectation in higher education. The statistical results of this study extend the understanding of how university could manage student expectation. The significant strong effect of both personal needs and word of mouth suggests that student expectation are difficult to manipulate by external sources. University management needs to realize that direct marketing effort by giving information through advertising may not be effective. The results indicate that, in Thai higher education, students very much rely on internal sources of information. They are more likely to be influenced by word of mouth. They relate the more general vicarious experience to other students. However, positive word of mouth may raise a level of expectation, making it more difficult to delight students. Conversely, potential students may be put off by negative word of mouth. If they subsequently experience the service they may prove easier to delight because their expectations have been mitigated to an extent by what they have heard. These findings may have practical implications for university marketing and management in Thailand. University management must ensure that they guard against complacency. They should continually strive to maintain and improve the delivery of service relative to expectations. Parents may have a role in the decision-making group that goes beyond their influence as a source of information (Johnston, 2010). University should communicate with student's family and friends as they are a high degree of student's influencer. University representatives should also maintain personal connections with high school teachers. Effective communication with these key influencers could create positive perception as well as positive word of mouth.

The analysis also provided evidence that price is a statistically significant antecedent of student expectation. This significant effect suggests that in addition to the importance of an internal source of information, student expectation is based on what they received versus the money they spend in their universities. Especially, public universities who are planning to turn themselves into autonomous universities. They need to manage their budget and students' tuition fee (Laosirattanachai & Wongthai, 2017). As a result, university management should attempt to influence student expectation by carefully communicate the service students will receive in return to their tuition fee. The moderating effect of campus locations on the relationship between price and expectation suggests that university management could

segment student expectation according to their geographical campus locations. Besides, other socioeconomic factors in the area such as average income, employment rate, and housing. With all of these results, universities may need to revise the concept of their traditional communication of information and students' expectation levels.

Limitation

This study nonetheless produced some insight into various source of information as an antecedent of student expectation. However, more research is required to clarify further the antecedents of expectation in higher education. Employing qualitative or longitudinal research approaches to explore the reason behind these statistical results may yield insightful results.

Acknowledgement

The authors would like to thank Rajamangala University of Technology Isan for the research fund. The authors also thanks the colleagues in Nakhonratchasima, Surin Campus, Khon Kaen Campus, and Sakon Nakhon Campus for their assistance during the data collection process.

References

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin, 103*(3), 411.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science, 16*(1), 74-94.

Beales, H., Michael B. M., Steven C. S., & Richard S. (1981). Information Remedies for Consumer Protection. *American Economic Review, 71* (May):410-413.

Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: diagnosing favorable and unfavorable incidents. *Journal of marketing, 54*(1), 71-84.

Byrne, B. M. (2013). *Structural equation modeling with Mplus: Basic concepts, applications, and programming*. Routledge.

Leek, S., & Chansawatkit, S. (2006). Consumer confusion in the Thai mobile phone market. *Journal of Consumer Behaviour: An International Research Review, 5*(6), 518-532.

Churchill Jr, G. A., & Surprenant, C. (1982). An investigation into the determinants of customer satisfaction. *Journal of marketing research, 19*(4), 491-504.

Day, E. (1992). Conveying service quality through advertising. *Journal of Services Marketing, 6*(4), 53-61.

Deighton, J. (1984). The interaction of advertising and evidence. *Journal of Consumer Research, 11*(3), 763-770.

Devlin, J. F., Gwynne, A. L., & Ennew, C. T. (2002). The antecedents of service expectations. *Service Industries Journal, 22*(4), 117-152.

Donnelly, J. H., Jr. (1976). Marketing Intermediaries in Channels of Distribution for Services, *Journal of Marketing, 40* (January), 55-70.

George, W. R., & Berry, L. L. (1981). Guidelines for the advertising of services. *Business horizons, 24*(4), 52-56.

Gronroos, C. (1994). From scientific management to service management: a management perspective for the age of service competition. *International Journal of Service Industry Management, 5*(1), 5-20.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis*. Uppersaddle River.

Ilyas, A., Nasir, H., Hussain, F., Malik, M. R., Munir, S., & Sarwar, Z. (2013). Evaluating business schools service quality using SERVQUAL model. *Journal of Basic Applied Science Research, 3*(5), 710-6.

Johnson, C., & Mathews, B. P. (1997). The influence of experience on service expectations. *International Journal of Service Industry Management*, 8(4), 290-305.

Johnston, T. C. (2010). Who and what influences choice of university? Student and university perceptions. *American Journal of Business Education*, 3(10), 15-24.

Khodayari, F., & Khodayari, B. (2011). Service quality in higher education. *Interdisciplinary Journal of Research in Business*, 1(9), 38-46.

Kline, R. B. (2005). Principles and practice of structural equation modeling. New York: Guilford, 115-170.

Kotler, P., & Fox, K. F. (1995). *Strategic marketing for educational institutions*. Prentice Hall.

Lee, C. K. C., & Morrish, S. C. (2012). Cultural values and higher education choices: Chinese families. *Australasian Marketing Journal*, 20(1), 59-64.

Legg, D., & Baker, J. (1987). Add Value to Your Service. *American Marketing Association*, 163-68.

Laosrirattanachai, P., & Wongthai, N. (2018). An Investigation of the Focus of Thai University Mottos. *Veridian E-Journal, Silpakorn University (Humanities, Social Sciences and arts)*, 11(4), 1140-1156.

Maister, D. H., & Lovelock, C. H. (1982). Managing facilitator services. *Sloan Management Review* (pre-1986), 23(4), 19.

Mala, D. (2017). 75% of Thai universities could close as enrolment falls and foreign competition heats up. Retrieved from [https://www.bangkokpost.com/ learning/advanced/1254175/75-of-thai-universities-could-close-as-enrolment-fallsandforeign-competition-heats-up](https://www.bangkokpost.com/learning/advanced/1254175/75-of-thai-universities-could-close-as-enrolment-fallsandforeign-competition-heats-up) (April, 5, 2019).

Maringe, F. (2006). University and course choice: Implications for positioning, recruitment and marketing. *International journal of educational management*, 20(6), 466-479.

Mosahab, R., Mahamad, O., & Ramayah, T. (2010). Service quality, customer satisfaction and loyalty: a test of mediation, *International Journal of Business and Management* 3(4): 72–80.

National Economic and Social Development Council. (2017). Gross Regional and Provincial Product (GPP). Retrieved from <http://www.nesdb.go.th/main.php?filename=grossRegional> (April, 1, 2019).

Oliver, R. L. (1976). Hedonic reactions to the disconfirmation of product performance expectations: Some moderating conditions. *Journal of Applied Psychology*, 61(2), 246.

Owlia, M. S., & Aspinwall, E. M. (1996). A framework for the dimensions of quality in higher education. *Quality Assurance in Education*, 4(2), 12-20.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual: A multiple-item scale for measuring consumer perception. *Journal of retailing*, 64(1), 12.

Patterson, P., Romm, T., & Hill, C. (1998). Consumer satisfaction as a process: a qualitative, retrospective longitudinal study of overseas students in Australia. *Journal of Professional Services Marketing*, 16(1), 135-157.

Pithers, B., & Holland, T. (2006). Student Expectations and the Effect of Experience. *Australian Association for Research in Education Conference*, Adelaide, Australia.

Prugsamatz, S., Pentecost, R., & Ofstad, L. (2006). The influence of explicit and implicit service promises on Chinese students' expectations of overseas universities. *Asia Pacific Journal of Marketing and Logistics*, 18(2), 129-145.

Rajamangala University of Technology Isan (2019). RMUTI History. Retrieved from <https://www.rmuti.ac.th/2019/> (April, 10, 2019).

Rathmell, J. M. (1966). What is meant by services?. *Journal of marketing*, 30(4), 32-36.

Saris, W. E., Satorra, A., & Sörbom, D. (1987). The detection and correction of specification errors in structural equation models. *Sociological methodology*, 105-129.

Sizer, J. (2001). Research and the knowledge age. *Tertiary Education and Management*, 7 (3), 227-42.

Srikatanyoo, N., & Gnoth, J. (2002). Country image and international tertiary education. *Journal of Brand Management*, 10(2), 139-146.

Tasci, A. D., & Gartner, W. C. (2007). Destination image and its functional relationships. *Journal of travel research*, 45(4), 413-425.

Tse, D. K., & Wilton, P. C. (1988). Models of consumer satisfaction formation: An extension. *Journal of marketing research*, 25(2), 204-212.

Voss, R., Gruber, T., & Szmigin, I. (2007). Service quality in higher education: The role of student expectations. *Journal of Business Research*, 60(9), 949-959.

Wikraisakda, K., & Kittisaknawin, C. (2019). The Importance of Customer Experience in Service Business: Building Competitive Advantage in Future Global Marketing Trend. *Veridian E-Journal, Silpakorn University (Humanities, Social Sciences and arts)*, 12(2), 537-555.

Yorke, M. & Knight, P. (2004). Self-theories: Some implications for teaching and learning in higher education. *Studies in Higher Education*, 29: 25-37.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of marketing*, 49(4), 41-50.

Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1993). The nature and determinants of customer expectations of service. *Journal of the academy of Marketing Science*, 21(1), 1-12.

Zeithaml, V.A. & Bitner, M.J. (2000), Services Marketing, McGraw-Hill, Boston, MA.

Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1985). Problems and strategies in services marketing. *Journal of marketing*, 49(2), 33-46.