IMPACT OF STUDENT ENGAGEMENT ON THE LEARNING QUALITY: A CASE STUDY OF PUBLIC UNIVERSITIES IN HO CHI MINH CITY

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ABSTRACT

Higher education plays an essential role in training and providing high-quality human resources as a foundation for the formation and development of the innovative capacity to serve the country's development and contribute to knowledge humankind. Over the past decades, public universities have gone through expansion and transformation, simultaneously, they are faced with a series of challenges, both domestically and internationally. Therefore, the authors conducted empirical research on student engagement with the university they attend to demonstrate this connection with university learning quality. The results showed the perceived service value and the purpose of life are two crucial prefix variables for student engagement - which the authors found evidence in this study. This study used a linear structural model to process the model with six latent variables and seven hypotheses for the relationship between the variables. The results found that seven hypotheses were accepted at the 1% level with official data collected from 800 students of 7 public universities (6/2020-12/2020) in HCM City. The model tested the scale's reliability through Cronbach's Alpha coefficients and Exploratory Factor Analysis (EFA), Confirmation Factor Analysis (CFA), and SEM.

Keywords: Student, Engagement, Public, University, Learning, Quality, SGU.

INTRODUCTION

Universities have an essential role in training and providing high-quality human resources for the country, serving as a foundation for developing an innovative capacity to serve economic and social development. Contribute to human knowledge (Burrow et al., 2014). Besides, the university has undergone a process of formation and evolution; simultaneously, it is faced with a series of challenges, both domestically and internationally. In the context and trends of the 4th industrial technology, the revolution will profoundly change higher education. The university is no longer a monopoly of knowledge. Still, it now has to fulfill their roles higher, inspiring learners to have the right attitude to study and train them to have self-training and lifelong learning spirit. In the opposite direction, learners have many choices regarding locations and methods to equip themselves with knowledge (Bindman et al., 2015). Such changes have affected the higher education institutions that operate today and are seen as the driving force for higher education marketing (Ben-Eliyahu et al., 2018). Therefore, it is more important than ever to improve the quality of training services, attract learners, and other marketing activities to "care" for students as customers. Therefore, the authors measured the quality of learning in public universities concerning student engagement.

LITERATURE REVIEW

Student Engagement (SE)

The concept of cohesion and its meaning has been researched and developed over the past several decades. Initially, students measured the cohesion by the time on the task; then, defined as the quality of effort, learner participation, social and academic integration, good practice in education and training, results, and learners' cohesion. A review of theory (Kahu & Nelson, 2018) affirms that cohesion is a "super conceptual" concept with many research universities. Therefore, understanding this concept is too complicated because of the diversity; inconsistency overlaps in images, measurements, and the distinction between prefixes and suffixes. There is typical empirical evidence on the prefix variables affecting student engagement. Thus, demonstrating the factors of perceived service value, purpose in life, resilience, and absorbability impact student engagement and consider university learning quality (Engelen et al., 2014). How their relationship with students' engagement with their university is expected to contribute to student engagement theory and confirm the relationship marketing theory's role? And customer relationship management in education services.

When measuring student engagement, the authors inherit the study (Kalafatis & Ledden, 2013) with a similar research context. The results show the inner nature of student engagement. There are only four components presented above. According to (Kahu, 2013), each customer will have different feelings about the value of services provided through general assessment by awareness of the usefulness and utility of the service received compared to what was provided. This factor is also known as the perceived service value.

SE1: I'm excited about my studies at this university (Parsons et al., 2018).
SE2: My classroom is an exciting place at this university by (Peruta & Shields, 2018).
SE3: I am interested in learning in the university by (Pike, 2013).

The Quality of Learning (QL)

The quality of university learning is defined as learners' satisfaction and happiness with their educational experiences during their time studying (Arshad et al., 2016). Self-determination theory focuses primarily on the psychological level. Besides, the quality of learning depends on applying appropriate principles for learning in adulthood. Adult learners learn best in a comfortable, cooperative, supportive, and friendly environment. It is a suitable environment for adult learners to learn deeply (Ariani, 2015). Accordingly, through the satisfaction of basic psychological needs (competencies, connections, and autonomy), the behavior results are guided by each person's motivation. Quality of learning depends mainly on the student's learning method. So it depends on learners' conception of what they know about their knowledge and what education strategies they will use (Chau & Cheung, 2018).

QL1: My satisfaction with the academic environment and learning in general at this university (Rezaei-Zadeh & Darwish, 2016).
QL2: The happiness of friends and classmates (you know) with the academic environment and learning in general at this university by (Engelen et al., 2014).
QL3: How happy you are with your studies at this university (Sillick & Cathcart, 2014).
QL4: Considering all things, how happy are your friends and other classmates with their study at this university by (Sun & Hsieh, 2018).

Perceived Service Value (PSV)

Perceived Service Value (PSV), the more a student appreciates educational services, the greater the awareness of satisfaction in basic psychological needs motivates them to engage inappropriate behaviors. Participating (or engaging) in their learning (Miller et al., 2016). At the same time, the process of connecting through the learning experience will help students realize the values that belong to or become internalized to become part of) the inner motivation, and it is here that allows students to continue and improve.

PSV1: The quality of training I get from our faculty affects my degree's value (Peruta & Shields, 2018).
PSV2: The content of each subject affects the value of my knowledge (Hodge et al., 2018).
PSV3: The guidance I receive from instructors affects the value of my knowledge (Matos et al., 2018).
PSV4: I learned new things from many internal subjects' programs (Huang et al., 2019).

It is the high quality of engagement with their university (Mohsen et al., 2018). Therefore, the authors posed a hypothesis.

H1 Perceived Service Value (PSV) positively affects Student Engagement (SE) at public universities

Life Purpose (LP)

Life Purpose (LP) is an essential factor determining individuals' success (Mariano & Walter, 2015). Purpose life gives a sense of meaning to life and many motivated endeavors. In the theory of self-determination, in addition to the external and the internal motives, (Huong et al., 2018) had argued to bring about the notion of autonomous and control explanations. Accordingly, when individuals are motivated by control, they feel pressure to behave in a certain way and experience little or no autonomy (Peruta & Shields, 2018). When the individual is self-motivated, he is motivated and self-determined, driven by the interests, enjoyment, and satisfaction inherent in the behavior or activity they are engaged in (Huang et al., 2019).

This autonomy helped individuals set goals for their lives. Then it is the autonomous motivation that will motivate them to be self-conscious and make an effort to do/participate in activities that help them achieve their life goals (Basirion et al., 2014).

LP1: I have many purposes in my life (Yang et al., 2018).
LP2: To me, the things I do are worth it (Parsons et al., 2018).
LP3: I have many reasons to live by (Peruta & Shields, 2018).
LP4: I appreciate my activities by (Agostino & Arnaboldi, 2017).

Thereby, students satisfying the basic psychological needs inherent in each individual. Therefore, the authors posed a hypothesis.

H2 Life Purpose (LP) positively affects Student Engagement (SE) at public universities

Persistence (PE)

Persistence (PE) demonstrates perseverance and a passion for long-term goals or the ability to survive (Nguyen et al., 2018). It is shown through the efforts to exercise resilience, conscientiousness, autonomy, and perseverance with problem-solving measures (Agostino &

Arnaboldi, 2017). So, persistence requires working hard on challenges, maintaining effort and interest for a long time (many years) despite many difficulties and failures, but still pursuing success (Matos et al., 2018). Thus, a student's university experience is a long, arduous, challenging process that requires sustained effort and concern with the goal of successfully achieving a degree.

If the student's knowledge of this behavior is motivated by an integrated or an integrated external motive, the student will act more autonomously, exhibiting greater resilience and quality (Chang et al., 2012) higher behavioral results; in other words, the higher the interest/interest and effort, the more students will engage in university activities to achieve the desired success (Hong et al., 2017).

PE1: I finish anything that I start doing by (Taecharungroj, 2017).
PE2: I am diligent and study hard (Tas, 2016).
PE3: I am a hard worker (Yang et al., 2018).
PE4: Failures don't stop me (Peruta & Shields, 2018).

Therefore, the authors have the hypothesis:

H3 Persistence (PE) positively affects Student Engagement (SE) at public universities

Absorption Capacity (AC)

Absorption Capacity (AC) is defined by (Hodge et al., 2018) as the ability to harness knowledge from the university, including recognizing prices. Its value assimilates it, combine it with existing knowledge and apply it to their daily work. (Darolia, 2014) arguing regarding the ability to absorb, claim that emotional attachment is a positive emotion to knowledge and skills. Hence, the more internal motivations help them to be concerned, interested in learning. Reflecting on information, experience, or surrounding issues, from which the willingness to make the necessary efforts for complex and challenging work is known as cognitive cohesion (Dao & Thorpe, 2015).

When students have recently received knowledge and skills from instructors such as teachers, teachers, or friends, they always have primary manifestations of cognitive and emotional cohesion of love and reflection on their usefulness/necessity, but this is just a low cohesion (Ball & Perry, 2011). Herefore, the higher students' ability to absorb knowledge makes them more engaged in learning (Awang-Hashim et al., 2015).

AC1: I can recognize new knowledge and skills from the instructor that they apply to my work (Sillick & Cathcart, 2014).
AC2: I can acquire new knowledge and skills from my instructor (Sun & Hsieh, 2018).
AC3: I can apply the latest knowledge and skills provided by the instructor to my work (Taecharungroj, 2017).
AC4: I can integrate new knowledge and skills provided by the instructor with previous knowledge mine (Tas, 2016).

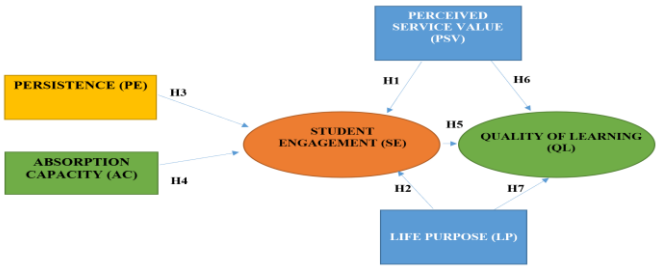
Based on the above arguments, the authors have a hypothesis:

H4 Absorption Capacity (AC) positively affects Student Engagement (SE) at public universities

H5 Student Engagement (SE) positively impacts the Quality of Learning (QL)

H6 Perceived Service Value (PSV) positively affects the Quality of Learning (QL) at public universities; and

H7 Life Purpose (LP) positively affects the Quality of Learning (QL) at public universities.



(Source: Authors proposed)

FIGURE 1
MODEL FOR FACTORS AFFECTING STUDENT ENGAGEMENT (SE) AND QUALITY OF LEARNING (QL)

RESEARCH METHOD

Theoretical Research: The objective of the authors' study is to demonstrate the cognitive factors and personal characteristics, including perceived service value, absorbability, learning purpose, and resilience, that influence such does it come to student engagement; At same time, the study examines the relationships between the cohesion, service value perceived and purpose of life and the student's quality of learning at public university. Derived from the context/idea, the authors determined the research problem and objective based on the research gap found from the analysis/synthesis of previous studies and the investigation of theories. Explain scientific laws related to research issues, establish theoretical models, and design draft scales to measure research concepts.

Preliminary Research: The initial study aims to define a formal scale for the proposed model concepts. Necessary activities to be performed include

i) Preliminary investigation,

ii) Assessing the reliability of the scale through the variable-total correlation coefficients (Item-Total Correlation) and Cronbach's Alpha, and

iii) Exploratory Factor Analysis (EFA) to form a formal questionnaire by (Hair et al., 2010).

Official research: Authors tested the model and hypothesis of the relationships in the proposed model. The order of implementation in this step is:

i. Conducting an extensive survey with official scales,
ii. Conducting confirmation factor analysis (CFA-Confirmatory Factor Analysis), and
iii. Processing linear structure model. Calculation (SEM - Structural Equation Modeling).

Sampling Method: The authors conducted the research concept scale to a preliminary test before performing official research. This test is through primary quantitative research. According to (Hair et al., 2010), to use factor analysis, the minimum sample size should be 50, preferably 100, and the observed/measurement ratio is 5:1. The author had four independent variables, two dependent variables, and 23 observed variables in the scale. Based on the sample size calculation method mentioned, with the convenient sampling method, students are students at public

universities in Ho Chi Minh City; the authors had surveyed 800 copies, of which 765 copies are satisfactory (Hair et al., 2010).

Confidence Coefficient Cronbach's Alpha: The first tool used to preliminary test the above scales is to evaluate the reliability through the variable-total correlation coefficient and Cronbach's Alpha coefficient. If an observed variable has a variable-total correlation coefficient ≥ 0.30, that variable meets the requirement. Besides, if Cronbach's Alpha ≥ 0.60 is a scale of reliability (Hair et al., 2010). However, the Cronbach's Alpha coefficient is not the higher, the better. According to (Hair et al., 2010), if Cronbach's Alpha is too large (≥ 0.95), many variables on the scale are not different. They together measure some content of the research concept that causes the present overlap in measurement.

Exploratory Factor Analysis – EFA: The second tool to preliminarily test the scales is the experimental analysis method EFA. EFA is used to evaluate the discriminant value and the convergence value of the scale. The study uses extracting the principal axis factoring factor and the Promax rotation (which will reflect the data structure more accurately than using main components with varimax rotation) to consider the critical properties below to satisfy the requirements. Test of KMO (Kaiser-Meyer-Olkin measure of sampling adequacy) >0.50 (Hair et al., 2010). The eigenvalue criterion to determine the number of factors that stopped in the aspect with the minimum eigenvalue is 1 (≥ 1) (Hair et al., 2010). The number of extracted factors is consistent with the initial hypothesis of quantity with scale to achieve discriminant value (Hair et al., 2010).

The factor load of the observed variable on the factor that it measures must be high, and the burdens on other factors that the variable does not measure must below (the scale reaches the convergent value). Factor load ≥ 0.5 or the difference between two weights for the exact measurement of an observed variable >0.3 is the accepted value, but for samples with a size greater than 350, the factor load factor > 0.3 by (Hair et al., 2010).

Total Variance Extracted (TVE) represents the scale that explains how many percent of the data's variation. TVE ≥ 50% means the standard part must be greater than the partial amount and the error if TVE ≥ 60% is good (Hair et al., 2010). Analysis of linear structural model – SEM: Firstly, measuring the suitability of the model (scales) with market information through Chi-square (CMIN), Chi-square adjusted for degrees of freedom (CMIN)/df), GFI (Goodness-of-Fit Index), CFI (Comparative Fit Index), TLI (Tucker and Lewis Index) and RMSEA (Root Mean Square Error Approximation) index. A model is said to be consistent (compatible) with market data when: Chi-square test has p>0.5, Chi-square/df ≤ 2 (Hair et al., 2010), in some cases, CMIN/df can be ≤ 3 (Hair et al., 2010). However, this index depends on the larger sample size, the larger the index, which means it does not reflect the model's correct suitability when the sample size is large (Hair et al., 2010).

Indicators are GFI, TLI, CFI ≥ 0.9, and RMSEA ≤ 0.08 (Hair et al., 2010). Note, sometimes GFI<0.9 is also accepted in many previous studies (Hair et al., 2010), specifically, this index is between 0.8-0.89, which is a reasonable threshold for acceptance by (Hair et al., 2010). The authors calculated scale evaluation criteria including:

i. Aggregated reliability coefficient,
ii. Total extracted variance,
iii. Unidirectional calculation,
iv. Convergent value,
v. Discriminant value, and
vi. Theoretical value contact.

Accordingly, the authors evaluated the theoretical model's academic relation value criteria (Hair et al., 2010) while the criteria 1, 2, 3, 4, and 5 are evaluated in the scale model.

These criteria are considered to meet the following requirements:

1. The scale meets the needs of reliability when the combined reliability coefficient (ρC) and extraction variance (ρVC)> 0.5 (Hair et al., 2010).
2. The scale reaches a unidirectional value when there is no correlation between observed variables' error (Hair et al., 2010).
3. The scale goes the convergence value when the normalized weights are all high > 0.5 and statistically significant ($p<0.05$; (Hair et al., 2010).
4. The scale reaches the discriminant value when the overall correlation coefficient between concepts is different from 1 and is statistically significant (Hair et al., 2010).
5. The parameter estimation in the models is applied according to the Maximum Likelihood Estimator (ML) method.

The advantage of the distribution in this method is that it deviates slightly from the multivariate normal distribution.

RESEARCH RESULTS

Testing of Cronbach's Alpha

Table 1
TESTING OF CRONBACH'S ALPHA FOR STUDENT ENGAGEMENT (SE)

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SE1	6.6523	3.533	0.868	0.937
SE2	6.7163	3.345	0.929	0.890
SE3	6.7673	3.412	0.867	0.938
Cronbach's alpha: 0.946				

(Source: Data processed by SPSS 20.0)

Table 1 showed that Cronbach's alpha for Student Engagement (SE) meets this technique's requirements. Specifically, all of Cronbach's Alpha values are more than 0.6.

Table 2
TESTING OF CRONBACH'S ALPHA FOR QUALITY OF LEARNING (QL)

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
QL1	7.2065	3.232	0.678	0.857
QL2	7.1072	2.936	0.801	0.808
QL3	7.1595	3.252	0.669	0.860
QL4	7.1111	2.921	0.768	0.822
Cronbach's alpha: 0.873				

(Source: Data processed by SPSS 20.0)

Table 2 showed that Cronbach's alpha for Quality of Learning (QL) meets this technique's requirements. Specifically, all of Cronbach's Alpha values are more than 0.6.

Table 3
TESTING OF CRONBACH'S ALPHA FOR PERSISTENCE (PE)

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PE1	9.1935	7.816	0.951	0.938
PE2	9.2144	8.051	0.868	0.962
PE3	9.1804	8.169	0.883	0.957
PE4	9.2039	7.807	0.928	0.944
Cronbach's alpha: 0.962				

(Source: Data processed by SPSS 20.0)

Table 3 showed that Cronbach's alpha for Persistence (PE) meets this technique's requirements. Specifically, all of Cronbach's Alpha values are more than 0.6.

Table 4
TESTING OF CRONBACH'S ALPHA FOR LIFE PURPOSE (LP)

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
LP1	10.1987	5.769	0.733	0.806
LP2	10.0771	5.498	0.705	0.816
LP3	10.2588	5.697	0.636	0.847
LP4	10.2144	5.663	0.738	0.803
Cronbach's alpha: 0.857				

(Source: Data processed by SPSS 20.0)

Table 4 showed that Cronbach's alpha for Life Purpose (LP) meets this technique's requirements. Specifically, all of Cronbach's Alpha values are more than 0.6.

Table 5
TESTING OF CRONBACH'S ALPHA FOR ABSORPTION CAPACITY (AC)

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
AC1	9.1882	7.703	0.908	0.929
AC2	9.1830	7.828	0.864	0.942
AC3	9.1464	8.065	0.857	0.944
AC4	9.1725	7.643	0.902	0.931
Cronbach's alpha: 0.952				

(Source: Data processed by SPSS 20.0)

Table 5 showed that Cronbach's alpha for Absorption Capacity (AC) meets this technique's requirements. Specifically, all of Cronbach's Alpha values are more than 0.6.

Table 6
TESTING OF CRONBACH'S ALPHA FOR PERCEIVED SERVICE VALUE (PSV)

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PSV1	9.2654	7.855	0.916	0.941
PSV2	9.2824	7.949	0.859	0.958
PSV3	9.2327	8.079	0.886	0.950
PSV4	9.2353	7.790	0.934	0.935
Cronbach's alpha: 0.959				

(Source: Data processed by SPSS 20.0)

Table 6 showed that Cronbach's alpha for Perceived Service Value (PSV) meets this technique's requirements. Specifically, all of Cronbach's Alpha values are more than 0.6.

Table 7 **KMO AND BARTLETT'S TEST FOR FACTORS AFFECTING STUDENT ENGAGEMENT (SE) AND QUALITY OF LEARNING (QL)**		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.853
Bartlett's Test of Sphericity	Approx. Chi-Square	17706.371
	df	253
	Sig.	0.000
Extraction Sums of Squared Loadings: Cumulative is 83.50 %		

(Source: Data processed by SPSS 20.0)

Table 7 showed that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) is 0.853 (>0.5). This result is consistent with the actual data investigated at seven public universities in Ho Chi Minh City.

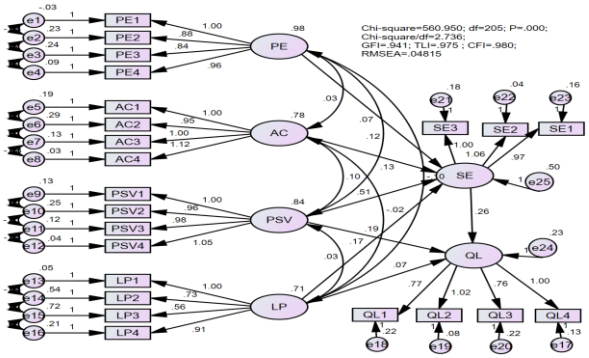
Testing coefficients for factors affecting Student Engagement (SE) and Quality of Learning (QL)

Table 8
TESTING COEFFICIENTS FOR FACTORS AFFECTING STUDENT ENGAGEMENT (SE) AND QUALITY OF LEARNING (QL)

Relationships			**Estimate**	**S.E.**	**C.R.**	**P**	**Results**
SE	<---	LP	0.182	0.035	5.213	***	Accepted
SE	<---	PSV	0.497	0.031	15.999	***	Accepted
SE	<---	AC	0.112	0.026	4.287	***	Accepted
SE	<---	PE	0.068	0.026	2.634	0.008	Accepted
QL	<---	PSV	0.143	0.020	6.970	***	Accepted
QL	<---	SE	0.201	0.023	8.725	***	Accepted
QL	<---	LP	0.060	0.021	2.899	0.004	Accepted

(Source: Data processed by SPSS 20.0 and Amos)

Table 8 showed four factors affecting Student Engagement (SE) and three factors affecting the Quality of Learning (QL) with a significance level of 0.01. These results are critical information for managerial implications to enhance Student Engagement (SE) and Quality of Learning (QL) at public universities. Besides, the results confirm that the research model is consistent with market data. The model has 7 out of 7 accepted hypotheses; in the end, university learning quality is influenced only by student engagement and influenced by perceived service value and life purpose.



(Source: Data processed by SPSS 20.0 and Amos)

FIGURE 2
TESTING SEM FOR FACTORS AFFECTING STUDENT ENGAGEMENT (SE) AND QUALITY OF LEARNING (QL)

Figure 2 showed that the SEM assessment had factors affecting Student Engagement (SE) and Quality of Learning (QL) with a significance level of 0.01. Figure 2 showed that the assessment of the scale of the Student Engagement (SE) and Quality of Learning (QL): CMIN/DF=2.736 (<5.0), GFI=0.941 (>0.8), TLI=0.975 (>0.9) and CFI=0.980 (> 0.9).

Table 9
TESTING BOOTSTRAP WITH 10.000 SAMPLES FOR FACTORS AFFECTING STUDENT ENGAGEMENT (SE) AND QUALITY OF LEARNING (QL)

Parameter			SE	SE-SE	Mean	Bias	SE-Bias
SE	<---	PE	0.026	0.000	0.069	-0.001	0.001
SE	<---	AC	0.039	0.001	0.120	-0.008	0.001
SE	<---	PSV	0.037	0.001	0.511	0.000	0.001
SE	<---	LP	0.039	0.001	0.167	-0.004	0.001
QL	<---	SE	0.031	0.000	0.256	0.001	0.001
QL	<---	PSV	0.026	0.000	0.184	-0.002	0.001
QL	<---	LP	0.025	0.000	0.069	-0.002	0.001

(Source: Data processed by SPSS 20.0 and Amos)

Table 9 showed that the bootstrap test results are very good with a sample of 10.000 students at seven public universities in Ho Chi Minh City. These results indicated four factors affecting Student Engagement (SE) and three factors affecting the Quality of Learning (QL) with a significance level of 0.01.

CONCLUSION & MANAGERIAL IMPLICATIONS

Conclusion

The research model built with a focus on student engagement through seven hypotheses about the relationship between cognitive factors: perceived service value and personal characteristics [ability absorption, the purpose of life, resilience for cohesion, and the relationship between cohesion and perceived service value, the purpose of life for the student's learning quality of at the university. The study results are empirical evidence to confirm the role and meaning of self-determination theory and the theory of absorption capacity in explaining the law of the scientific phenomenon of student engagement at university. The results bring some new specific academic and practical contributions:

1. Research has shown how four cognitive factors and personal characteristics affect student engagement at university. These are

i) Perceived service value and the ability to absorb positively impact on student engagement are two relationships that have not been previously found in the higher education context;

ii) For learning, if previous studies have suggested that affecting student engagement, the research results of the authors did not find the existence of this relationship; and

iii) The authors found that persistence positively affects student engagement similar to the effects of some previous studies, but differs in how the engagement is measured.

2. Research has found the varied regulatory role of absorption and the purely regulatory role of life purpose in the relationship between service perceived value and student engagement. These findings are significant because they have not been found in previous publications.

3. The research model results have shown a significant impact of cohesion on the quality of university learning as a piece of empirical evidence that applies self-determination theory in the context of higher education, alongside evidence in other fields.

4. The demonstration of the form of training had a group regulator. The concentration and the unfocused groups of students it is a bearer. Discovery can lead to suggestions for further research.

5. From a university perspective, all administrators are pursuing sustainable university development; however, higher education still faces many challenges related to student engagement. Identifying each factor's relationship to the cohesion and quality of university learning will help university administrators identify specific solutions to create a more cohesive learning environment by improving the quality of educational services and improving students' characteristics. On the other hand, these policy implications will also help students promote self-worth and improve their university learning quality.

Managerial Implications

Based on the research results, the authors found that the four factors of students' perception and personal characteristics all play a positive role in their university cohesion. The message to university administrators will be:

1. The perceived value of the service and the attachment are significant to the administrator in improving the service provider relationship with the customer. Therefore, from the perspective of customers' perceptions through the intellectual, emotional, visual, and social values they receive and the satisfaction in evaluating training costs and quality; college administrators need solutions to increase universities' value. Specifically, in this case, administrators need to have practical marketing communication activities so that learners (customers) have a clear and deep sense of the values they receive at the university that match what they spent. Quality investment, for example, in forums that exchange information directly with learners.
2. The positive relationship between student engagement and cohesion implies that university administrators need to help their clients increase this capacity by improving the quality/value of knowledge. Like new skills they get; Students then integrate and apply them in academic activities at the university, which increases their engagement with the university they are attending. An even more important reason that university administrators need to be mindful of is the regulatory role of absorption in the relationship between service perceived value and student cohesion. The meaning it brings to marketing communications increases students' positive perception about the importance of the service they receive.
3. The analytical results showed that life purpose does not directly affect the student's cohesion but plays a role in regulating the relationship between service perceived value and attachment. Therefore, the message sent to university administrators is that there is a need for solutions to help students identify their purpose in life while studying at the university, especially for new students. The authors can implement this solution through internal activities (training, thematic activities...) and outside activities (extracurricular, volunteering, community...). Because the more students realize the meaningful things they pursue, the better they feel about the service value students receive, from which they will be more attached to the learning process.
4. Research results show that persistence is beneficial for students in implementing their main task is learning. Because the higher the perseverance, the more learners can have a learning experience connected with the university. This accompaniment is to helping students maintain and increase resilience will be a challenge and an opportunity for the service provider to build customer engagement over the long term. To help learners maintain and increase stability over the 2 to 4-year journey, university administrators need programs without feeling discouraged to improve cohesion. Training that elicits passion stimulates interaction, gives feedback, and inspires students to strive for long-term goals continually. Specifically, in addition to renewing training programs, improving teachers' quality, technologizing teaching and learning

methods... there should be other supportive activities such as study support, scholarships, awards, study, business period, skills development... Besides, higher education institutions also need to pursue a modern governance method towards personalization - identification, focusing on each object to improve their characteristics.

LIMITATIONS

In the framework of a research paper, this study still has many regulations: First, in the study's scope, the authors had limited data collected within the framework of public universities in HCMC. Therefore, the results have not reflected the appropriateness of the model for students of the public university. Second, the model only tests with data of seven public universities in Ho Chi Minh City. Therefore, it is necessary to further try in other provinces/cities with many public universities such as Da Nang and Can Tho to increase the research results' generalization. Further studies may test the authors' proposed model with data from the public university block to see if there is a difference in the identified relationships. Besides, with other market data, the researchers can also examine the intermediate (partial) role of the association for the independent variables such as perceived service value, absorption capacity, the purpose of life, endurance, and variable dependence.

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