

Factors Affecting Student's Satisfaction with the Financial Management System of Public Universities in Vietnam



Tran Huong Xuan

Hanoi University of Home Affairs, 36 Xuan La, Tay Ho, Hanoi, Vietnam

ABSTRACT: In the context of state budget cuts and increasingly fierce competition, the increase in student satisfaction with the financial management system is one of the revenue growth goals of the Vietnamese public university. This study aims to examine the factors affecting student satisfaction with the financial management system. The multiple regression model was applied to test the proposed hypotheses. Participating in the study were 200 students from universities in Hanoi. The study period is May 2022. The research results show that financial information equipment and process factors affect students' satisfaction with the financial management system with the highest regression coefficient ($\beta = 0.366$, sig =0.000); next is the accessibility to financial support services factor ($\beta =0.220$, sig =0.000) and the lowest is financial services support staff factor ($\beta =0.161$, sig =0.006). This result implies that public universities in Vietnam need to focus on developing financial staff to meet the increasingly demanding expectations of students.

KEYWORDS: financial support services, accessibility , process, satisfied, public university, student, Vietnam

INTRODUCTION

Since the Vietnamese government accepted the development of the private university system in 1988 until now, the number and scale of private universities have been growing. Vietnam currently has 237 universities, including 172 public, 60 private, and five universities with 100% foreign capital. The competition for high-quality human resources between public and private universities is fierce in response to the current need to improve the quality of higher education in Vietnam (Hung & Dung, 2020). In response to the requirements of existence and development, public universities are applying many strategic policies to attract highly qualified lecturers with extensive experience in research and teaching, creating motivation to work for students. Moreover, they let them dedicate themselves to the development of the universities (Tan & Hoa, 2018).

Student Financial Services describes how colleges provide students and families with financial-related services, such as applying for financial aid, paying tuition bills, and related business processes needed to pay for higher education. Financial services vary by country. In Vietnam, several indicators measuring financial management innovation at public universities include financial autonomy; the proportion of financial sources outside the state budget; the proportion of spending on investment and purchase of assets; the ratio of the expenditure on additional income for employees, and the balance of spending on science and technology activities (Government of Vietnam, 2011).

The financial management system, if it makes students feel pressured, causing anger and frustration, will hinder the university's training activities and reduce enrollment. Therefore, improving the financial management system to serve students better and increase student satisfaction is of great interest to universities in Vietnam (Dinh The Hung, Nguyen Thi Hong Thuy, Han Thi Lan Thu, 2013). Public universities in Vietnam are innovating the financial management system, adding new financial instruments, increasing student satisfaction, and increasing the potential profits the system offers (Phan Ngoc Nha, 2020). The objective of reforming the financial management system of public universities in Vietnam is to balance financial innovation, financial performance, and financial stability and improve financial supervision concepts and rules. In addition, it enhances supervision's effectiveness. It provides a better environment for financial innovation by strengthening the construction of financial supervision systems to ensure that financial innovation develops in a more efficient, orderly, and healthy direction (Dinh The Hung, Nguyen Thi Hong Thuy, Han Thi Lan Thu, 2013).

Studying the financial management system in higher education, researchers mainly focus on the effective and efficient operation of the internal control system and the elements of the system that need to operate effectively and synchronized (Dinh

Factors Affecting Student's Satisfaction with the Financial Management System of Public Universities in Vietnam

The Hung, Nguyen Thi Hong Thuy, & Han Thi Lan Thu, 2013). The internal control system is an effective and efficient management tool for the entity's resources, limiting risks and increasing the reliability of the entity's financial statements (Phan Ngoc Nha, 2020). The internal control system in a public university must first be clean and professional, aiming to improve the efficiency of university autonomy (Dao Thuyet Lan & Phan Thi Yen Phuong, 2020). Many studies also show that the financial management innovation for universities to be autonomous is reflected in the economic mechanism making employees more aware of empowerment; the relationship between the increase in revenue leads to a rise in wages; higher productivity; finance contributes to the development of a positive, achievement-based culture and gives employees better opportunities to stay with the organization (Bhandari, 2010).

Many studies also show that the pressure to innovate the financial management system at public universities is increasing because the state budget allocation to public institutions has decreased. As a result, tuition prices are rising faster than inflation, and sources of financial aid are shifting from grants to loan-based support (Rizzo, 2007; Chabotar, 1989). From the perspective of practical financial management innovation, universities should be managed similarly to for-profit corporations in that the management in both institutions wants to have profits to continue operating in the future. Long-term, ultimately, stakeholders realized nonprofits, including universities, have many of the same operational goals as for-profit corporations (Chotobar, 1989). In higher education, debt is often required for new facilities or expansion of services. As a result, leverage ratios provide insight into management's ability to make sound strategic decisions (Chabotar, 1989). At public universities, financial contracts are clear, but the role of financial management system innovation as an agent in increasing university enrollment and revenue is unclear (Fama & Jensen, 1983). There are many causes, among them are passive financial leadership and exist in a poorly managed environment of public universities (Bhandari, 2010; (Gomez-Mejia & Balkin, 1992; Kivisto, 2005; Olsen, 2000; Smith, Zsidisin, & Adams, 2005).

In examining why not all universities are equally successful in diversifying their income, some studies are interested in how external factors affect income diversification as institutional autonomy (De Dominicis, Pérez, & Fernández- Zubieta, 2011). Many studies are interested in the critical factors to diversifying income sources, such as autonomy and self-responsibility (Li-Chuan Chiang, 2004), financial stability (Besana & Esposito, 2015; Webb, 2015; Stachowiak-Kudła & Kudła, 2017), less vulnerable of financial resources (Namalefe, 2014), stable source of public funding (Estermann & Pruvot, 2014; Teixeira et al., 2014), popularization policies (Teixeira & Koryakina, 2013; Jacob & Gokbel, 2018; Taylor, 2013; Besana & Esposito, 2015; Koryakina, 2018).

Many solutions to help public universities increase financial resources have been recommended by researchers, such as strengthening the internal control system in the process of planning, implementing plans, accounting and reporting to development, and ensuring the successful implementation of the university's internal financial control system, contributing to financial stability and growth (Vasicek, Dragija, Martina, & Hladika, 2010). Investing in people is a strategic investment, requiring substantial financial resources and a financial mechanism to promote human resources (Rizzo, 2007). Meanwhile, studies approaching from the perspective of learners' impact on financial resources are rarely found in previous studies. However, the reality in Vietnam shows that learners' satisfaction with the financial system will positively impact enrollment decisions and increase university sales. Therefore, this study aims to fill the theoretical gap on the relationship between student satisfaction with the university's financial management system and test hypotheses about the factors affecting students' satisfaction with the university's financial management system.

LITERATURE REVIEWS

University financial management system

The university's financial management system is a system for managing income, expenses, liabilities, assets, and related transactions. The university's autonomy manifests itself in rationality characterized by reliability, accountability, and transparency, as well as a level of technical and organizational capacity that ensures financial and economic sustainability-standardized service. Therefore, the financial management system is increasingly important and is constantly being renewed (Benkovic, Joksimović, Nevenka, & Barjaktarovic Rakocevic, 2018). Reforming the university's financial management system is part of a series of innovations aimed at improving the efficiency of higher education, which requires highly adaptable institutions, including staff members, in strategic decision-making and financial decisions (Cowan, 1985)

The core element of the financial management system in the university is cash flow and liquidity. Therefore, in studying university financial management systems, researchers often focus on solvency and its implications for performance (Modigliani & Miller, 1963). In view of this approach, many studies have also demonstrated that profitability ratios are essential to understanding the organization's long-term viability. Repeated deficits are unsustainable and reflect poor financial management decisions (Chabotar, 1989). Since public universities typically have no non-state owners, virtually any profits are retained within

Factors Affecting Student's Satisfaction with the Financial Management System of Public Universities in Vietnam

the institution to advance the shared mission (Chabotar, 1989). The effectiveness of financial management in universities depends on how the financial management is delivered by the leadership and the organization responsible for managing the operation in a particular manner Kivisto (2005). However, studies all confirm that innovation in financial management in public universities makes finance a cost-effective means of evaluating faculty research and teaching Gomez-Mejia & Balkin, 1992).

Student financial service system management

The university's financial management system plays a massive role in helping students manage their finances well. In addition, students are learning to transition from being dependent on society to living a leisurely life (Xiao, Shim, Barber, & Lyons, 2007). Students are young people who develop a consumerist lifestyle and emphasize material ownership, preferring to consume rather than save and seeing money as an essential factor for their success (Watson, 2003). Students' orientation toward this materialism leads to increasing their unhappiness (Goldberg, Gorn, Peracchio, & Bamossy, 2003). Students use a value-driven financial services system and attempt to represent their status in life or social relationships (Christopher, Kuo, Abraham, Noel & Linz, 2003; Pantzar, Raijas, & Eiskanen, 2005). A sound financial management system helps students avoid credit abuse and poor financial management (Erasmus & Mat-hunjwa, 2011).

The development of new products and technologies and a well-developed distribution system put pressure on market segmentation and target marketing, supported by competition in the service systems sector student finance (Desta, 2011; Kailash, 2012). Students are the biggest users of financial services and student market products (Dickler, 2008). The student financial services system's approach to students has been very passive in the past. However, with the introduction of a two-tier student financial services system, the industry has become increasingly competitive and driven by demand with the emergence of new services in the market and changing student behavior (Kubenka & Ptackova, 2011). The competitive environment forces student financial services systems to create different student customer segments (Kubenka & Ptackova, 2011), competitive crux (Dubey, 2011), requires much more creativity in product and service development (Kubenka & Ptackova, 2011). The student financial services system changed from a two-tier financial services system; marketing influence became more apparent (Kubenka & Ptackova, 2011). Student financial services systems focus on young people as a critical market for personal financial services with the goal of long-term profitability (Kubenka & Ptackova, 2011). The academic model of students at universities is very favorable for student financial services systems because students depend on grants, loans, or financial support from their parents (Muellbauer, 2008). Students are expected to have a high income after graduation and thus become a lovely student customer group for student financial services systems. So, student financial services systems try to attract students with special promotions and offers, which vary between financial services and products but do not change much (Muellbauer, 2008).

Increasing competition, socioeconomic changes, and technological advancements continue to drive student demand for convenience. As a result, University financial services systems are working to provide comfort as an effective means of managing student clients. Comfort, mainly studied in product purchases, began to suggest comfort in the service sector through research on retail stores (Yu, 2017; Kim, 2018). The convenience provided by the financial services system in the university service is provided through information delivery. It is provided for both indirect and intangible benefits and student clients through physical and human services.

Student satisfaction with the university's financial system

Student satisfaction is critical to an institution's financial success (Muntean & Stremtan, 2011). Institutions should investigate and measure the factors that promote student satisfaction (Kaura, 2013; Muntean & Stremtan, 2011). Satisfaction is a student's feeling towards a product or service after using it (Waqar & Bakhtiar, 2012) a comparison between the rewards and costs associated with using or purchasing a product or service relative to the expected consequences of using (Foscht et al., 2010). Improved experiences with positively responsive service create a higher sense of satisfaction (Suman & Rohit, 2012). Repeated use of the financial services system and positive word of mouth will lead to higher acceptance rates on the student client side and higher levels of satisfaction and pride in their work on the student side (Koraus, 2011). Negative word of mouth can seriously harm a business (Yavas, Benkenstein & Stuhldreier, 2004). Improving student satisfaction also plays a vital role in financial strategy (Koraus, 2011).

Numerous studies have found that these special student financial services system incentives increase student satisfaction both in breadth and depth for their product mixes, such as New loan products, discount brokerage services, and a wide range of commercial accounts (Muellbauer, 2008). Not only can promotions help student financial services systems gain market share and stimulate demand for their services (Yavas, Bilgin, & Shemwell, 1997). Thanks to streamlined channel planning models, student financial services systems can identify profitable student customer segments (Jeyabalan, 2013).

Students are increasingly demanding financial services (Bingham & Lewis, 1991). The system also generates student satisfaction besides objective parameters (such as low-cost overdraft, free student financial services system with low or zero interest accounts, ..). Subjectively perceived methods (such as a more attentive approach from student financial services system

Factors Affecting Student's Satisfaction with the Financial Management System of Public Universities in Vietnam

staff, queuing, slow service, service communication, approaching student needs, ..) play a vital role in their satisfaction level (Belas, 2008). The convenience of the financial management system significantly impacts student satisfaction (Gao, 2019, Sekhar & Sarma, 2018). The factors affecting students' satisfaction with the student financial management system have been identified by many studies, including, First, the convenience of providing accurate information. This process requires students' time and effort to purchase a service or make a purchase decision. Second, the convenience of access helps student customers save time and effort in meeting student customers and using services. Third, comfort is when the service is provided (Kim & Lee, 2012). Transaction convenience involves reducing the cost of time and effort received after using the service. Convenience to compensate for unexpected service failures or defects after using the service. The provision of additional services is associated with the satisfaction of service recovery efforts (Chang & Kim, 2017, Ahn, 2016). Increased student satisfaction with the financial management system means increasing university sales. Existing student financial services customers are taking control and must reassess student trends by region to prioritize products, improve service, and ultimately give student customers what they want (Belas, 2010; Kailash, 2012). Thanks to the rapid technological change leading to high service quality expectations, student financial services systems must pay attention to service quality and student satisfaction (Belas, 2010; Kailash, 2012).

We propose the following research model and research hypotheses from this research literature review:

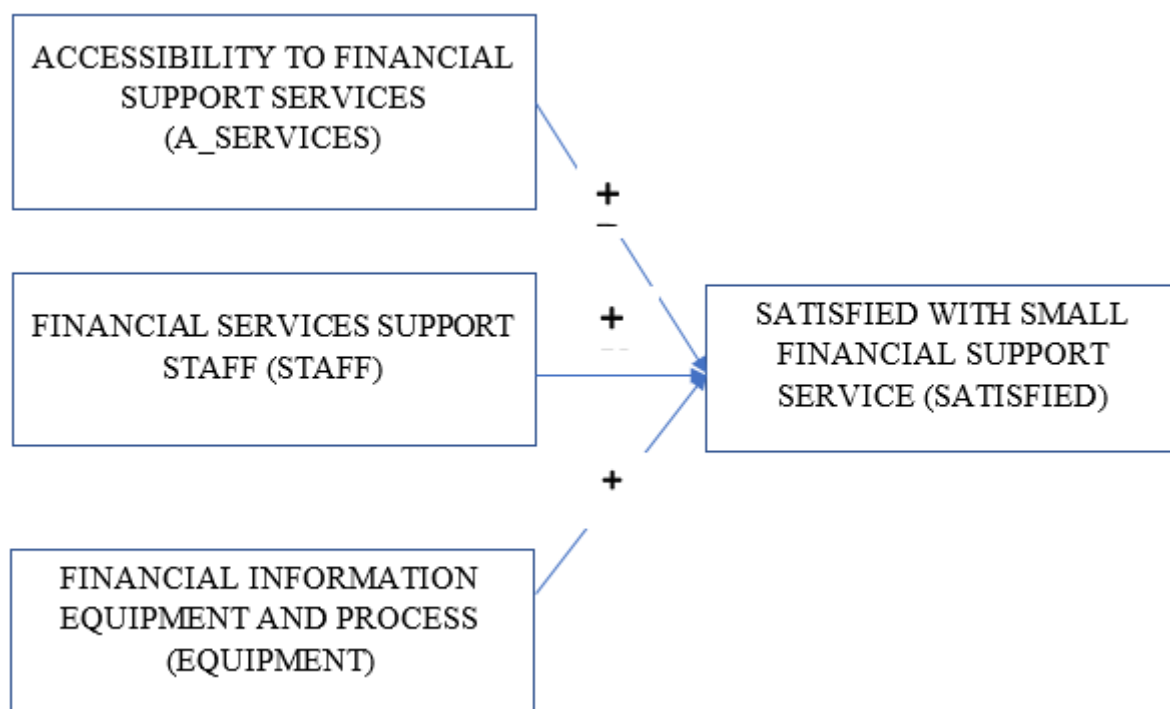


Figure 1. Researching model

H1. Accessibility to financial support services has a positive and significant relationship with satisfied with financial support service

H2. Financial services support staff has a positive and significant relationship with satisfied with financial support service

H3. Financial information equipment and process has a positive and significant relationship with satisfied with financial support service

RESEARCH METHOD

The study was conducted at public universities in Hanoi in May 2022. Participating in the survey were 200 full-time students. To carry out this study, the authors conducted a survey, collecting opinions of the study participants in two steps: preliminary investigation and formal investigation. In the initial examination, the research team conducted in-depth interviews with researchers in education, economics, and psychology to build a research scale and improve the questionnaire to suit the characteristics of the survey area. The questionnaire was constructed based on the results of the literature reviews and experts' comments, including two parts. Part 1 is used to collect demographic information of study participants. Part 2 is used to collect data on factors affecting student satisfaction with the financial management system at the university. A 5-point Likert scale is applied (1= Strongly disagree; 2= Disagree; 3= Neither agree nor disagree; 4= Agree' 5 = Strongly agree). This final version was

Factors Affecting Student's Satisfaction with the Financial Management System of Public Universities in Vietnam

pre-tested on 40 participants selected to be demographically representative of age, sex, education, and occupation. During the assessment, participants were asked to complete this final version, followed by minor edits to improve the question structure for better understanding. The same completed version adopted the official survey (Table 1).

Table 1. Items in the questionnaire

Factors	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neither agree nor disagree</i>	<i>Agree</i>	<i>Strongly agree</i>
ACCESSIBILITY TO FINANCIAL SUPPORT SERVICES					
Always have direct contact with support staff when necessary for guidance and advice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy access to regulation-based support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy access to information through websites, social networks, academic advisors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Convenient student reception time of support services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FINANCIAL SERVICES SUPPORT STAFF					
Friendly, enthusiastic advice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Timely support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clear support and advice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FINANCIAL SUPPORT PROCESS					
Receive science, timely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct information processing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Respond quickly and objectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FINANCIAL INFORMATION EQUIPMENT					
Transparency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Timely, often	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short, complete, easy to understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SATISFIED WITH FINANCIAL SUPPORT SERVICE					
Satisfied with access to information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Satisfied with the staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Satisfied with the facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Satisfied with the processing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The official survey. The questionnaire was sent directly to the respondents by the purposeful sampling method. The result was 200 valid votes (100%)—demographic information of study participants (Table 2).

Table 2. Demographic characteristics of survey participant.

		Majors											
		Business administration		Construction		English language		Information technology		Law		Tourism	
		N	Row N %	N	Row N %	N	Row N %	N	Row N %	N	Row N %	N	Row N %
Gender	female	19	20.2%	15	16.0%	11	11.7%	15	16.0%	18	19.1%	16	17.0%
	male	16	15.1%	15	14.2%	28	26.4%	16	15.1%	18	17.0%	13	12.3%
Age	18 years old	6	16.2%	8	21.6%	5	13.5%	6	16.2%	7	18.9%	5	13.5%
	19 years old	11	28.9%	5	13.2%	5	13.2%	8	21.1%	7	18.4%	2	5.3%
	20 years old	9	14.8%	6	9.8%	15	24.6%	9	14.8%	10	16.4%	12	19.7%
	21 years old	4	13.3%	4	13.3%	6	20.0%	5	16.7%	4	13.3%	7	23.3%
	Over 21 years old	5	14.7%	7	20.6%	8	23.5%	3	8.8%	8	23.5%	3	8.8%
Level	bachelor	29	20.4%	21	14.8%	29	20.4%	15	10.6%	27	19.0%	21	14.8%
	Postgraduate	6	10.3%	9	15.5%	10	17.2%	16	27.6%	9	15.5%	8	13.8%

Analyzing the Reliability of the Scales:

We have tested the scales through Cronbach's Alpha reliability coefficient to identify and remove impulsive variables to avoid creating bias factors when performing exploratory factor analysis. The verification criterion is that Cronbach's Alpha coefficient must be greater than 0.6, and the The correlation coefficient of the smallest total variable in each scale must be greater than 0.3 (Hair, Black, Babin, & Anderson, 2010). Table 3 shows that the scales of the factors are all standard. Therefore, all the rankings of the factor are reliable and used for exploratory factor analysis (EFA).

Table 3. Summary of Reliability and Relative Minimum Variables of Scales

Scales	Number of variables observed	Reliability coefficients (Cronbach Alpha)	The correlation coefficient of the smallest total variable
A_SERVICES	4	0.799	0.578
STAFF	3	0.700	0.497
PROCEDURE	3	0.754	0.516
EQUIPMENT	3	0.756	0.555
SATISFIED	5	0.803	0.561

After testing Cronbach's Alpha, the author uses EFA to preliminary evaluate the scales' unidirectional, convergent, and discriminant values. EFA was used by extracting the Principal Components Analysis Factor and Varimax rotation to group the factors. With a sample size of 200, the factor loading of the observed variables must be greater than 0.5; variables converge on the same factor and are distinguished from other factors. In addition, the Kaiser-Meyer-Olkin coefficient (KMO) is the index used to consider the suitability of factor analysis must be in the range $0.5 \leq KMO \leq 1$ (Cerny & Kaiser, 1977; Kaiser,1974).

The analysis results in Table 3 show that all factor loading coefficients of the observed variables are greater than 0.5; Bartlett test with Sig meaning. = 0.000 with KMO coefficient = 0.917. All 18 items when using EFA are extracted into four factors with Eigenvalues > 1 and cumulative variance percent = 58.570%. Thus, the research model consisting of 3 independent and one dependent variable is used for linear regression analysis and subsequent hypothesis testing.

Table 4. Exploratory factor analysis

Rotated Component Matrix ^a				
	Component			
	1	2	3	4
EQUIPMENT1	.710			
PROCEDURE1	.709			
EQUIPMENT3	.646			
PROCEDURE3	.630			
EQUIPMENT2	.597			
PROCEDURE2	.527			
SATISFIED2		.745		
SATISFIED1		.692		
SATISFIED4		.677		
SATISFIED5		.648		
SATISFIED3		.616		
A_SERVICES4			.753	
A_SERVICES3			.747	
A_SERVICES1			.681	
A_SERVICES2			.614	
STAFF3				.730
STAFF1				.692
STAFF2				.627
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 7 iterations.				

Pearson correlation analysis

The author used Pearson correlation analysis to analyze the correlation between quantitative variables. Table 5 shows that, at the 5% significance level, the correlation coefficient indicates that the relationship between the dependent and independent variables is statistically significant (Sig. < 0.05). The magnitude of the correlation coefficients ensures that multicollinearity does not occur. Therefore, other statistics can be used to verify the relationship between variables.

Table 5. Pearson correlation analysis results

Correlations					
		A_SERVICES	STAFF	EQUIPMENT	SATISFIED
A_SERVICES	Pearson Correlation	1	.523**	.569**	.550**
	Sig. (2-tailed)		.000	.000	.000
	N	200	200	200	200
STAFF	Pearson Correlation	.523**	1	.530**	.505**
	Sig. (2-tailed)	.000		.000	.000
	N	200	200	200	200
EQUIPMENT	Pearson Correlation	.569**	.530**	1	.602**
	Sig. (2-tailed)	.000	.000		.000
	N	200	200	200	200
SATISFIED	Pearson Correlation	.550**	.505**	.602**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	200	200	200	200
**. Correlation is significant at the 0.01 level (2-tailed).					

Factors Affecting Student's Satisfaction with the Financial Management System of Public Universities in Vietnam

Linear regression analysis

Multivariate linear regression analysis on the relationship between 3 independent variables A_SERVICES, STAFF, EQUIPMENT and 1 dependent variable SATISFIED . Table 6 shows that all the proposed hypotheses are accepted, which means that both the independent variables have a statistically significant impact on the dependent variable. With $R^2 = 0.585$, the multivariable linear regression model is built by the data set (research data explains 0.558 % of the variance). The VIF coefficient of all three independent variables to less than 1.7 is valid; the model has no multicollinearity (Alin, 2010). The ANOVA test has statistical significance ($p.value = 0.000$), proving that the relationship between the independent and dependent variables in the regression model is linear. On the other hand, the test of variance changes with a significance level ($p.vale > 0.005$) shows that the model does not have a variance change phenomenon (Koenker, 1981).

Table 6. The results of regression analysis

Coefficients ^a										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.808	.180		4.480	.000	.452	1.164		
	A_SERVICES	.220	.061	.247	3.634	.000	.101	.339	.608	1.644
	STAFF	.161	.058	.182	2.762	.006	.046	.276	.646	1.548
	EQUIPMENT	.366	.069	.364	5.327	.000	.230	.501	.602	1.661

a. Dependent Variable: SATISFIED

DISCUSSION AND CONCLUSIONS

The first. Research results (Table 6) show that access to financial support services has a positive and significant relationship with satisfaction with financial support services with regression coefficient $\beta = 0.220$, sig = 0.000. With this result, hypothesis H1 was accepted. This finding adds to the evidence of previous studies. Student satisfaction will increase when access to financial management systems in universities is easy (Modigliani & Miller, 1963; Chabotar, 1989; Kivisto; 2005). Thus, it can again be asserted that the financial management system in the university is a tool to increase student satisfaction as it adapts to the increasingly demanding needs of students (Gomez-Mejia & Balkin, 1992).

Second. Research results (Table 6) show that the factor of financial services support staff has a positive and significant relationship with satisfaction with financial support services with a regression coefficient $\beta = 0.161$, sig =0.006. With this result, hypothesis H2 was accepted. This result further complements the evidence that has been found in previous studies. Despite modern technology, human resources are an essential element of the financial system. In addition, the staff's enthusiasm for serving students increases their satisfaction ((Kubenka & Ptackova, 2011; Kubenka & Ptackova, 2011). Human resource innovation is the key to increasing competition (Dubey, 2011; Kubenka & Ptackova, 2011). Compared with other factors such as accessibility to financial support services and financial information equipment and process, the impact of financial services support staff factor on satisfaction with financial support service is at the lowest level. This result is different from the results of previous studies (Kubenka & Ptackova, 2011; Kubenka & Ptackova, 2011).

Third. Research results (Table 6) show that financial information equipment and the process have a positive and significant relationship with satisfaction with financial support service with regression coefficient $\beta =0.366$, sig = 0.069. With this result, hypothesis H3 was accepted. The results of this study are similar to the effects of previous studies in that in the technology development environment, the degree of application of modern technology to the financial management system in universities has increased student satisfaction at the highest level (Bingham & Lewis, 1991; Belas, 2008; Gao, 2019, Sekhar & Sarma, 2018).

Fourth. This result implies that Vietnam's public universities must focus on reforming the financial management system to increase student satisfaction. Specifically, it is necessary to innovate so that the financial management system can facilitate decisions in providing accurate information and to innovate the process of solving procedures to help students have

Factors Affecting Student's Satisfaction with the Financial Management System of Public Universities in Vietnam

convenience when accessing help and save time and effort (Kim & Lee, 2012). In assisting students in financial matters, universities need to focus on transaction convenience regarding the reduction of costs, time and effort of students, and the results they get after using the service (Chang & Kim, 2017, Ahn, 2016). Increasing student satisfaction with the financial management system means increasing university sales, so the university needs to re-evaluate student financial services systems and improve service quality. service and ultimately give students what they want (Belas, 2010; Kailash, 2012; Belas, 2010; Kailash, 2012).

Limitations

As with other empirical studies, there are limitations to this study that should be considered when discussing the results. First, our survey method reflects the subjective perception of the respondents toward the questions being investigated. Subjective data has some inherent disadvantages that are hard to avoid in surveys (Pakpour, Gellert, Asefzadeh, Updegraff, Molloy, & Sniehotta, 2016). Our data is collected over a single period, so certain limitations exist in the analysis and evaluation of the results (Xin & Zhanyou, 2019). Future research should combine cross-sectional analysis and long-term research.

The purposeful sampling method has limitations and does not fully reflect population characteristics (Lin et al., 2016; Strong et al., 2018). Our survey was conducted in a Vietnamese cultural context. Therefore more general statements are needed than could be made by applying the development research model and research conclusions to other countries (Sun et al., 2012). This study did not examine demographic variables. Therefore, further studies should consider demographic factors such as age, gender, and occupation to understand better students' satisfaction with the financial management system in Vietnamese public universities.

Acknowledgments

The author sincerely thanks the student community of Hanoi University of Home Affairs for supporting the survey.

Conflict of interest

The author declares that there is no conflict of interest.

REFERENCES

1. Ahn, B. (2016). Economic Analysis of the EDISON (EDucation-to-industry Integration through Simulation on the Open platform and Net) - focused on direct benefits. *Asia-Pacific Journal of Educational Management Research*, 1(1),155-160.
2. Alin, A. (2010). *Multicollinearity*. Wiley interdisciplinary reviews: computational statistics, 2(3), 370-374.
3. Allison, T. H., Davis, B. C., Short, J. C., & Webb, J. W. (2015). Crowdfunding in a prosocial microlending environment: Examining the role of intrinsic versus extrinsic cues. *Entrepreneurship Theory and Practice*, 39(1), 53-73.
4. Belas, J. (2008). *Retail banking*. Bratislava: Iura Edition.
5. Belas, J. (2010). *Management komercnych bank, bankovych obchodov a operaciL Zilina: Georg*.
6. Benkovic, Sladjana & Joksimović, Nevenka & Barjaktarovic Rakocevic, Sladjana. (2018). *Challenges to Financial management and Control in the Public Administration of Serbia*.
7. Besana, A., & Esposito, A. (2015). Strategies, Performances and Profiling of a Sample of US Universities in 2012. *Open Journal of Applied Sciences*, 5(03), 83.
8. Bhandari, S. B. (2010). Ethical dilemma of nonprofits in the agency theory framework. *Journal of Leadership. Accountability and Ethics*, 8(2), 33-40.
9. Bingham, G. H., & Lewis, B.R. (1991). *The Youth Market for Financial Services*.
10. Cerny, B. A., & Kaiser, H. F. (1977). *A study of a measure of sampling adequacy for factor-analytic correlation matrices. Multivariate behavioral research*, 12(1), 43-47.
11. Chabotar, K. J. (1989). Financial ratio analysis comes to nonprofits. *The Journal of Higher Education*, 60(2), 188-208.
12. Chang, J. and Kim, K. (2017). What makes people keep using Fintech payment service? In the perspective of herding behavior theory and trust. *The E-Business Studies*, 18(2),197-212.
13. Christopher, A. N., Kuo, S. V., Abraham, K.M., Noel, L. W., & Linz, H. E. (2003). Materialism and affective well-being: the role of social support. *Personality and Individual Differences*, 37(3), 463-470. <http://dx.doi.org/10.1016/j.paid.2003.09.015>.
14. Cowan, J. (1985). Effectiveness and Efficiency in Higher Education. *Higher Education*, 14(3), 235–239. <http://www.jstor.org/stable/3446807>.
15. Dao Thuyet Lan, Phan Thi Yen Phuong. (2020).Improving the internal control system in non-public universities. *Journal of Accounting & Auditing*, 5(200), 47-5.

Factors Affecting Student's Satisfaction with the Financial Management System of Public Universities in Vietnam

16. De Dominicis, L., Pérez, S. E., & Fernández-Zubieta, A. (2011). *European university funding and financial autonomy*. A study on the degree of diversification of university budget and the share of competitive funding, European Union.
17. Desta, T., S. (2011). Perceived Quality of Services Rendered by Commercial Banks: A Case Study of State Bank of India (SBI), Panjab University (PU) Branch, Chandigarh, India. *International Journal of Research in Commerce & Management*, 2(11), 26-35.
18. Dickler, J., (2008). *Credit Card Debt on Campus: Unprepared Students Have Been Increasingly Targeted by Card Issuers, and Some Lawmakers Are Taking Notice*. (2008, July 14). CNNMoney.com. Retrieved from: http://money.cnn.com/2008/07/10/pf/credit_cards_college/index.htm?postversion=2008071416/.
19. Dinh The Hung, Nguyen Thi Hong Thuy, Han Thi Lan Thu. (2013). Internal control system in Vietnamese public universities today. *KT&D*, 194 (II), 82-91.
20. Dubey, S. (2011). Service Quality Perceptions: A Case Study of Banking Services. *International Transactions in Applied Sciences*, 3(3), 491-506.
21. Dubey, S. (2011). Service Quality Perceptions: A Case Study of Banking Services. *International Transactions in Applied Sciences*, 3(3), 491-506.
22. Erasmus, A. C., & Mathunjwa, G. Q. (2011). Idiosyncratic use of credit facilities by consumers in an emerging economy. *International Journal of Consumer Studies*, 35(3), 359-371. <http://dx.doi.org/10.1111/j.1470-6431.2010.00946.x>.
23. Fama, E. F., & Jensen, M. C. (1983). Separation of Ownership and Control. *Journal of Law and Economics*, 26, 301-332.
24. Ferreira, V., Wiedmann, M., Teixeira, P., & Stasiewicz, M. J. (2014). *Listeria monocytogenes* persistence in food-associated environments: epidemiology, strain characteristics, and implications for public health. *Journal of food protection*, 77(1), 150-170.
25. Foscht, T., Maloles III, C., Swoboda, B., & Chia, S. L. (2010). Debit and credit card usage and satisfaction. *International Journal of Bank Marketing*, 28(2), 150-165. <http://dx.doi.org/10.1108/02652321011018332>.
26. Gao, H. (2019). *A Study on Intention to Use Fintech Service: Focusing on Fintech users in Korea and China*. Doctoral dissertation, Keamyung University.
27. Goldberg, M. E., Gorn, G. J., Peracchio, L. A., & Bamossy, G. (2003). Understanding Materialism Among Youth. *Journal of Consumer Psychology*, 13(3), 278-288. http://dx.doi.org/10.1207/S15327663JCP1303_09.
28. Gomez-Mejia, L. R., & Balkin, D. B. (1992). Determinants of faculty pay: An agency theory perspective. *Academy of Management Journal*, 35(5), 921-955.
29. Government of Vietnam. (2011). Decree No. 60/2021/ND-CP.
30. Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis: A global perspective* (Vol. 7).
31. International Journal of Bank Marketing, 9(2), 3-11. <http://dx.doi.org/10.1108/02652329110001143>.
32. Jacob, W. J., & Gokbel, V. (2018). Global higher education learning outcomes and financial trends: Comparative and innovative approaches. *International Journal of Educational Development*, 58, 5-17.
33. Jeyabalan, K. (2013). A Study on mobile banking in nationalised banks with reference to coimbatore city. *Journal of Arts, Science & Commerce*, 4(1), 37-42.
34. Kailash, M. (2012). A Study on Customer Satisfaction with Service Quality in Indian Public and Private Sector Banks. *Golden Research Thoughts*, 1(9), 1-4.
35. Kaiser, O. (1974). *Isaiah 13-39 (1974): A Commentary*. Westminster John Knox Press.
36. Kaura, V. (2013). Antecedents of customer satisfaction: a study of Indian public and private sector banks. *International Journal of Bank Marketing*, 31(3), 167-186. <http://dx.doi.org/10.1108/02652321311315285>.
37. Kim, M. (2018). The Impacts of Financial Reforms on Households' Savings Behavior. *International Journal of IT-based Social Welfare Promotion and Management*, 5(1), 7-12.
38. Kim, S. and LEE, L. (2012). Factors Affecting the Intention to Use of Smart-Phone Banking Service: A Case of Chinese Users. *The Journal of the Korea Contents Association*, 12(11), 303-312.
39. Kivisto, J. (2005). The government-higher education institution relationship: theoretical considerations from the perspective of agency theory. *Tertiary Education and Management*, 11, 1-17.
40. Koenker, R. (1981). A note on studentizing a test for heteroscedasticity. *Journal of econometrics*, 17(1), 107-112.
41. Kõljalg, U., Nilsson, R. H., Abarenkov, K., Tedersoo, L., Taylor, A. F., Bahram, M., ... & Larsson, K. H. (2013). *Towards a unified paradigm for sequence-based identification of fungi*.
42. Koraus, A. (2011). *Financny marketing*. Bratislava: Sprint.
43. Kubenka, M., & Ptackova, P. (2011). Marketing of Banks - Segment of Students. Scientific papers of the University of Pardubice. *Series D, Faculty of Economics and Administration*, 20(2), 28-39.

Factors Affecting Student's Satisfaction with the Financial Management System of Public Universities in Vietnam

44. Li-Chuan Chiang. (2004). The Relationship between University Autonomy and Funding in England and Taiwan. *Higher Education*, 48(2), 189–212. <http://www.jstor.org/stable/4151575>
45. Lin CY, Updegraff JA, Pakpour AH. (2016). The relationship between the theory of planned behavior and medication adherence in patients with epilepsy. *Epilepsy & Behavior*, 61, 231–236.
46. Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: A correction. *American Economic Review*, 53, 433-443. <https://www.jstor.org/stable/1809167>.
47. Muellbauer, J. (2008). *Housing, Credit and Consumer Expenditure*. Centre of Economic Policy Research (CEPR).
48. Muntean, A., & Stremtan, F. (2011). Research Regarding the Satisfaction of Bank Services Consumers at CEC Bank S.A. *Annales Universitatis Apulensis Series Oeconomica*, 13(2), 655-661.
49. Olson, D. E. (2000). Agency theory in the not-for-profit sector: its role at independent colleges. *Nonprofit and Voluntary Sector Quarterly*, 29(2), 280-296.
50. Pakpour AH, Gellert P, Asefzadeh S, Updegraff JA, Molloy GJ, Sniehotta FF. (2014). Intention and planning predicting medication adherence following coronary artery bypass graft surgery. *Journal of Psychosomatic Research*, 77(4), 287–95. <https://doi.org/10.1016/j.jpsychores.2014.07.001> PMID: 25280826.
51. Pantzar, M., Raijas, A., & Eiskanen, E. (2005). *Green Consumers? Greening Consumption? Sustainable Consumption & Production*. Retrieved from: <http://www.iisd.ca/consume/inst-pan.html>.
52. Pham Thi Tan, Dang Thi Hoa. (2018). Factors affecting the working motivation of lecturers at Vietnam Forestry University. *Journal of Forestry Science and Technology Vietnam*, 03, 11-21.
53. Phan Ngoc Nha. (2020). Internal control system - a tool to support financial autonomy for public universities. *Science Journal*, 8. <http://tgu.edu.vn/dept/topic/?13294>.
54. Pruvot, E. B., & Estermann, T. (2014). *DEFINE thematic report: Funding for excellence*. EUA European University Association.
55. Rizzo, M. J. (2007). *State preferences for higher education spending: a panel data analysis, 1977-2001*. In R. G. Ehrenberg (Ed.), *What's happening to public higher education?: the shifting financial burden* (pp. 3-36). Baltimore, MD: Johns Hopkins University Press.
56. Sekhar, C. and Sarma, A. V. (2018). Automatization of Accounting and Payment Release Process of ESDM Scheme. *World Journal of Accounting. Finance and Engineering*, 2(1), 43-52.
57. Smith, M. E., Zsidsin, G. A., & Adams, L. L. (2005). An agency theory perspective on student performance evaluation. *Decision Sciences Journal of Innovative Education*, 3(1), 29-46.
58. Stachowiak-Kudła, M., & Kudła, J. (2017). Financial regulations and the diversification of funding sources in higher education institutions: selected European experiences. *Studies in Higher Education*, 42(9), 1718-1735.
59. Strong C, Lin CY, Jalilolghadr S, Updegraff JA, Brostrom A, Pakpour AH. (2018). Sleep hygiene behaviours in Iranian adolescents: an application of the Theory of Planned Behavior. *Journal of Sleep Research*, 27(1), 23–31. <https://doi.org/10.1111/jsr.12566> PMID: 28593637.
60. Suman, M., & Rohit, G. (2012). Consumer Perception towards Quality of Financial Services (Urban vs. Rural Perspective). *International Journal of Research in Finance & Marketing*, 2(2), 69-81.
61. Sun Y, Fang Y, Lim KH, Straub D. (2012). User satisfaction with information technology services: A social capital perspective. *Information Systems Research*, 23(4), 1195–211.
62. Teixeira, P., & Koryakina, T. (2013). Funding reforms and revenue diversification—patterns, challenges and rhetoric. *Studies in Higher Education*, 38(2), 174-191.
63. Tran Manh Hung, Tran Viet Dung. (2020). Research on factors affecting the working motivation of lecturers in Universities today. *Journal of Industry and Trade*, 7, 41-49.
64. Vasicek, Vesna & Dragija, Martina & Hladika, Mirjana. (2010). Impact of Public Internal Financial Control on Public Administration in Croatia. *Theoretical and Applied Economics*. 4(545), 71-86.
65. Waqar ul H., & Bakhtiar, M. (2012). Customer Satisfaction: A Comparison of Public and Private Banks of Pakistan. *Journal of Business and Management*, 1(5), 1-53.
66. Watson, J. J. (2003). The Relationship of Materialism to Spending Tendencies, Saving, and Debt. *Journal of Economic Psychology*, 24(6), 723-739. <http://dx.doi.org/10.1016/j.joep.2003.06.001>.
67. Xiao, J. J., Shim, S., Barber, B., & Lyons, A. (2007). *Academic Success and Well-being of College Students: Financial Behaviors Matter*. University of Arizona, Tucson: TCAI.
68. Xin Z, Liang M, Zhanyou W, Hua X.(2019). Psychosocial factors influencing shared bicycle travel choices among Chinese: An application of theory planned behavior. *PLoS ONE*, 14(1), e0210964. <https://doi.org/10.1371/journal.pone.0210964>.

Factors Affecting Student's Satisfaction with the Financial Management System of Public Universities in Vietnam

69. Yavas, U., Benkenstein, M., & Stuhldreier, U. (2004). Relationships between service quality and behavioral outcomes: A study of private bank customers in Germany. *International Journal of Bank Marketing*, 22(2), 144-157. <http://dx.doi.org/10.1108/02652320410521737>.
70. Yavas, U., Bilgin, Z., & Shemwell, D. J. (1997). Service quality in the banking sector in an emerging economy: a consumer survey. *International Journal of Bank Marketing*, 15(6), 217-223. <http://dx.doi.org/10.1108/02652329710184442>.
71. Yu, S. (2017). *A Study on Developed Security Check Items for Assessing Mobile Financial Service Security*. Master's Thesis, Chung-Ang University, Korea.



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.