

15<sup>th</sup> ICLEHI 2019 London 018-016 Huynh Thi Trang

## **Factors Impacting on Post-Graduate Learning Needs of Library and Information Management Graduates**

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### **Abstract**

This paper is aimed at identifying the impacting factors on post-graduate learning needs of Library and Information Management graduates at Can Tho University, Vietnam. Based on the conceptual framework of “High-quality human resource” defined by the United Nations Development Agency – UNDP (2004) and the education development strategies of the Ministry of Education and Training in Vietnam, the research was conducted using a quantitative approach. Of 262 former Library and Information Management graduates networked by the teaching staff through Department Facebook, 155 responded the online survey. Quantitative data were analyzed using exploratory factor analysis and multiple regression analysis of Statistical Package for the Social Sciences. The findings from this research show that one-third of these former Library and Information Management graduates had post-graduate learning needs and most of them are currently working at academic libraries. Among five groups of surveyed impacting factors leading to their Master-degree aspirations, features of training units, professional opportunities, and influential individuals were found as the strong impacting ones. Furthermore, findings from multiple regression analyses indicate that the most impacting factor is the features of the training units. They include suitable tuition, affordable living expenses, convenient geographical location, rich library resources, up-to-date reference materials for Master theses and available dormitory. Implications for attracting more post-graduate candidates to enroll in Can Tho University and other tertiary institutions are also presented. This research also provides insights into further professional training and development for library leaders in selecting and supporting qualified staff who contribute to the quality of human resources of their community.

*Keywords:* aspirations, impacting factors, library and information management, master degree, post-graduate learning needs

### **Introduction**

There is increased attention to high-quality human resources by different individuals and educational institutions in Vietnam. In particular, to respond to the Circular No. 15/2014/TT-BGDĐT signed by Ministry of Education and Training (2014) about master’s degree training, many universities have opened post-graduate training programs for society. Can Tho University is not an exception. By the end of the first quarter of 2019, Can Tho University had 98 undergraduate majors with 40,586 students and 48 master’s degree programs with 2,211 graduates (Can Tho University, 2019). The number of masters’ degree training programs of the university has increased after hundreds of faculties complete their masters’ and doctoral programs, including lecturers in Library and Information Management (LIM). According to the department strategic plan, the LIM master’s degree program will be established in the year 2020 after 10 years of

conducting the tertiary training program with 501 bachelor graduates. In order to ensure the right implementation of this training program, it is necessary to investigate the societal needs with the research projects and post-graduate learning needs of LIM graduates at Can Tho University.

The research is urgent because it helps to satisfy one of the prerequisites for the opening of a new program indicated by the Circular No. 09/2017/TT-BGDDT (Ministry of Education and Training, 2017b). This Circular prescribes conditions, order, and procedures for opening majors or training majors and suspending enrolment, revoking decisions to open courses or specialized training programs for master and doctoral degrees. It specifies that one of the conditions for opening a master's or doctoral program is to have evidence and identify the societal needs on a certain training major through the official surveys (Ministry of Education & Training, 2017). Moreover, the research needs to be carried out in 2019 to have sufficient data as well as evidence to meet the admission requirements and paperwork procedures for the major enrolment by 2020.

The research findings benefit the university, Faculty, Department, LIM alumni and society. Can Tho University will obtain suitable strategies to attract more candidates in the Mekong Delta region to study masters' programs. The School of Social Sciences and Humanities and the Department of Information and Library Management will have better vision in building and implementing a master's degree program in Library and Information Science. Moreover, the research findings also help the department grasp the factors affecting the graduate students' decisions to pursue a master's degree in order to have a suitable training program and ways to attract participants into the major. For LIM alumni, research is an opportunity for them to express their aspirations after graduation, work and share their views and experiences with other interested candidates. It will help alumni navigate the future plan for their career development.

### **Objectives**

The objective of this study is to identify and evaluate the impacting factors on master's degree learning needs of LIM graduates at Can Tho University, Vietnam. The specific objectives are as follows:

- (1) Analyzing master's degree learning needs of LIM alumni of Can Tho University
- (2) Identifying the factors that influence the decision of the post-graduate learning needs of LIM alumni
- (3) Suggesting possible solutions to attract more candidates to enroll in the master's degree program on LIM at Can Tho University

### **Research Questions**

- (1) What are the learning needs of LIM alumni of Can Tho University?
- (2) What factors influence the decision to study for a master's degree in LIM alumni at Can Tho University?
- (3) How does the master's degree program on LIM at Can Tho University attract more candidate enrolment?

### **Theoretical Framework**

This research is based on the conceptual framework of 'High-quality human resources' defined by the United Nations Development Agency UNDP (2004) and Vietnamese legal documents on the orientation of human resource development in the Mekong Delta region. In addition, the study relies on documents regulating leadership powers in nominating teaching staff and obligations of librarians as well as information specialists in participating in advanced learning degree to develop professional career and

better serve the community. Underpinned by these concepts and legal documents, a survey questionnaire was developed to collect data answering research questions as well as to fulfil the research objectives.

**Human resources.** According to the United Nations Development Agency UNDP (2004, p. 8): "Human resources are all the knowledge, skills, experiences, capabilities and creativity of people related to the development of each individual and of the country". Similarly, World Bank (2011) states that human resources are all human capital including physical strength, intellectual strength, and professional skills of each individual. It is the source of capital besides other types of capital such as monetary capital, technology, natural resources. Meanwhile, the International Labour Organization (ILO, 2017) defines human resources as the entire people within the working age. Thus, human resources can be understood as a source of labour supply for social production, providing human resources for development. In particular, human resources are the working capacity of society, a resource for socio-economic development, including people in working age, capable of participating in the labour process and social production. This means that all individuals can participate in the labour process. Similarly, T. B. Tran (2014) states that human resources play an important role in the economic and social development of a country. Therefore, countries in the world, including Vietnam, have paid much attention to developing human resources, equipping and constantly improving the professional level for employees. It is also a factor enforcing the implementation of social and economic development strategies.

**High quality human resources.** High quality human resource refers to an educated, highly qualified workforce, especially with the ability to be creative, flexible and quickly adapt to rapid changes of production technology. In particular, high quality human resources are those with university education or skilled labour. Chu (2012) confirms that the development of high quality human resources is to contribute to sustainable development of Vietnam in the new era. Similarly, Luong (2014) also affirmed the development of high quality human resources is an urgent requirement of the era, the knowledge economy, of the renovation, revive the current situation of the country. Success or failure, making good use of opportunities, overcoming risks, and the challenges from the industrial revolution 4.0 in Vietnam depend decisively on how to exploit human resources, especially the education and development of high quality human resources (D. B. Nguyen, 2018). It can be said that high quality human resource is the elite force of all human resources, playing a decisive role in the development of the country. Training high quality human resources in formal training institutions is the most effective way to develop high quality human resources (Than, 2017) .

**Legal documents.** In order to orient and guide the educational institutions on training masters' and doctoral degree programs, the Ministry of Education and Training has issued many legal documents. In particular, Decision No. 269/QĐ-BGDĐT in 2011 regulates the procedure of processing dossiers to open master's and doctoral degree training majors. Required documents include comments on the faculty members capacities, equipment for training and libraries as well as comments on the curriculum conducted by the Training Program Evaluation Council (Ministry of Education and Training, 2011). In addition, Circular No. 15/2014/TT-BGDĐT in 2014 regulates issues related to master's degree training such as enrolment, training programs, training activities, tasks and rights of training institutions, lecturers and students; inspecting, examining, solving problems and denunciations and handling violations in master's degree training (Ministry of Education and Training, 2014). In order to implement this task, Can Tho University also issued the Decision No. 3619/QĐ-DHCT in 2015, promulgating regulations on the master's degree training at the University. In which, it is clearly stated

that the goal of master's degree training is to meet the requirements of the trainees on supplementing, updating and improving career and specialized knowledge; strengthen interdisciplinary knowledge; in-depth knowledge in a specialized scientific field or skills to apply into reality; ability to work independently, creative thinking and ability to detect and solve problems (Can Tho University, 2015). Circular No. 09/2017/TT-BGDĐT in 2017 regulating conditions and procedures for opening new majors or training majors and suspending enrolment and withdrawal decision on master's or doctoral degree. This Circular specifies that one of the conditions for opening a new training major of a master's or doctoral degree is to have convincing evidence and identify the societal needs based on the surveys and scientific research. There are at least 02 comments on the need of training from two organizations and agreement to re-use these employees after being trained (Ministry of Education and Training, 2017b).

More specifically, it is the Circular No. 25/2017/TT-BGDĐT in 2017 on the list of education and training at level IV with master's and doctoral qualifications. In the Library and Information sector (coded 83202), there are 2 sub-majors of Master of Information (coded 8320202) and Library Science (coded 8320203). This Circular also stipulates the amount of professional knowledge in each master's degree program to ensure a minimum of 30 credits (Ministry of Education and Training, 2017a). More recently, Circular No. 06/2018/TT-BGDĐT in 2018, the Ministry of Education and Training regulates the determination of criteria for enrolment of intermediate and college students in teacher training sectors of bachelor, master's and doctoral qualifications. In particular, the number of master students calculated based on the number of the lecturers with doctoral degrees, Associate Professors and Professors is 03, 05 and 07 respectively (Ministry of Education and Training, 2018).

These policies lay the foundation for universities and academic training units to open and implement the master's and doctoral degree programs. They are also known as legal framework for universities and institutions to promote their autonomy, contribute to innovation and improve the quality of higher education.

### **Methodology**

This research was conducted using quantitative approach. Of 262 former LIM graduates networked by the teaching staff through Department Facebook, 155 responded to the online survey. These samples reach the expected number based on the "Sample size" determined by Cohen, Manion, and Morrison (2011) with 95% confidence, error 5 %. The online survey consists of 4 demographical items and 31 five Likert-scale questions which was completed in about 15 minutes. Only LIM students were requested to answer the online survey so as to collect the data from the actual samples. Quantitative data were analysed using frequencies, exploratory factor and multiple regression analyses of Statistical Package for Social Sciences (SPSS) to find out the answers for research questions and objectives.

### **Literature Review**

Research by the US Madison University has indicated that a master's degree training program marks a great success of a particular higher education institution because any individual with a master's degree deserves more respect and support from the society and community. Every year in the United States there are about 300,000 master's degree recipients on business, nursing, education, government and journalism. In addition, 35,000 people receive doctoral degrees and 1 million people are awarded outstanding achievements annually. A country with many masters' holders will have higher labor productivity, more knowledgeable consumers and more open-minded people. Moreover,

more and more women and ethnic minorities receive this degree. This is a good opportunity to encourage fairness in society. The study also recommends that employers need to make flexible work schedules, allowing employees to obtain annual permission to participate in study and to reimburse tuition fees for employees who possess master's degrees (Flint, 1991). According to the statistics of US News and World Report in 2011, among more than 3,000 universities and colleges surveyed in the United States, there are 63 universities that offer master's degree programs in Library and Information Science. The American Library Association is the only organization that accredits the Master of Library - Information training programs in North America (Sche, 2012). In Canada, about 78% of library association officials in Michigan, Ohio, Indiana and Ontario have master's degrees in library science, 22% possess other master's degrees, nearly 1% have enrolled PhD, 1% have doctoral degree, and 16% have other degrees (Powell & Boling, 2006).

Research conducted by McCook and Moen (1992) indicates that five factors influencing the decision to study master's degree on LIM of US students in the same state are ranked according to their priorities: their knowledge of training units, librarians, on-studying friends, on-studying colleagues and the library resources. Meanwhile, five factors that influence the decision to pursuit master's degree program from other states or from other countries are: library resources, reference materials, knowledge about school, librarians and alumni. Moreover, the main reason for students to study the Master of LIM program in the United States is: interesting disciplines, pursuing dreams to become information specialists, the ability to find good jobs, and career opportunities. Therefore, students are expected library curriculum training them with professional knowledge, business skills and the opportunity to learn experiences that increase their abilities to work in the future (Cherry, Duff, Singh, & Freund, 2011). In addition, master's degree holders also earn high-paying salaries as well as managerial positions in the library (Bertot, Sarin, & Jaeger, 2015).

In Vietnam, Than (2017) claims that in the last 3 years (2013-2014, 2014-2015, and 2015-2016) the number of doctoral holders in education is 10,394; 11,188; 14,427 and the number of masters' holders is 47,163; 51,369; 56,067 people. This is the main labour force that plays an important role in training high quality human resources for society. It is important that the training comes from the needs of individual workers and society is high. This is inevitable because the training needs are the knowledge, skills, methods and perspectives that students should have to meet their aspirations in their work and life (World Bank, 2011). Therefore, the training of human resources must be closely linked to the societal needs (Vo, 2014). As reported by the Central Propaganda Department (2017), Vietnam is in the period of golden population - the highest working age population. In 2016, the labour force of the whole country reached 54.4 million people, accounting for about 58.9% of the total population. However, the human resources of the country, especially the high-quality human resources are in shortage of quantity, limitations on quality and structural inadequacies. However, the training institutions do not have enough information about labor supply and demand, so the construction of the industry, occupations, targets and training levels do not satisfy societal needs (Le, 2016; D. B. Nguyen, 2018). Therefore, it is necessary to have information on the human resource needs of the society, especially the needs of enterprises and localities in order to well regulate the scale, structure of industries and trades and the training level of the society (D. B. Nguyen, 2018). In annual report of the alumni and the recruitment agency of the University of Forestry, there are 41.4% of alumni of the Forestry University who want to study for higher degrees. It is interesting to note that as many as 6.5% of alumni have a need to study master's degree programs which this university has not been opened. In addition, the report also stated that there are 74% of respondents from recruitment

agencies who need to recruit masters from the training sectors of Vietnam National University of Forestry (V. H. Tran & Trinh, 2014).

In Can Tho City, Vo (2014) indicates that "The training of human resources over the years has achieved remarkable results. However, the requirement of training high quality human resources for the city still has a lot of shortcomings. Therefore, improving the effectiveness of training to meet the development requirements of the city is very urgent and is becoming an important factor that needs to be invested" (p. 6). According to her, one of the solutions to improve the quantity and quality of training high quality human resources is that training program must be closely linked to the societal needs.

### Findings

#### LIM Alumni's Needs to Study for Master's Degree

Data in Figure 1 illustrates the number of LIM graduates who decide to study, not to study and unsure of study for master's degree. Overall, only one-third of 155 former LIM graduates ( $n = 51$ ; 33%) are expected to study for higher degree. Whereas, two-thirds of them are denying ( $n = 44$ ; 28%) and unsure ( $n = 60$ ; 39%) in decision. In comparison between two groups of LIM graduates with jobs and without jobs, the number of LIM alumni with jobs desire to study master as double as those who currently have no job. In particular, among 37 LIM graduates without jobs, there are only 7 of them (18.9%) desire to study for master's degrees while 44 of 118 (37.2%) LIM alumni with jobs refer to study further. In terms of 4 types of working places including public libraries, academic libraries, information organisations, and other organizations, percentage of LIM graduates who are currently working at public libraries want to pursue their higher study more than those in each remaining type of working locations counted 4 (50%), 15 (37.5%), 0 (0%), and 25 (35.2%) respectively. This also indicates that no LIM graduate working at information organisations wants to study further. Especially in academic libraries where masters' holders are really needed to satisfy the information needs enquired by the students, teaching staff and researchers in the university, only one-third of them want to study for master's degree ( $n = 15$ ; 37.5%). Similarly, one-third of them decide not to study master's ( $n = 15$ ; 37.5%). Generally, research findings indicate that master's degree learning needs of LIM alumni vary much among 4 types of working places and only one-third of them refer to study for higher degrees in average.

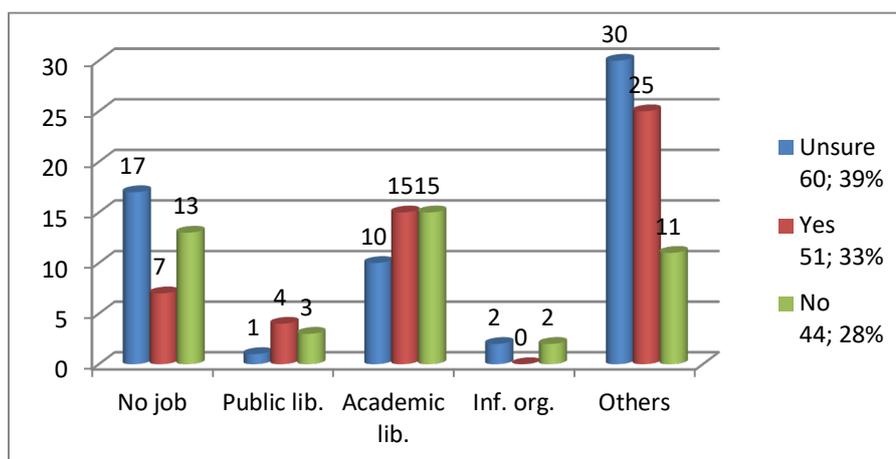


Figure 1. Master's degree learning needs

### Impacting Factors on the Decision to Study for Master's degree

To explore the factors affecting the demand for master's degree in LIM alumni, the study uses Exploratory Factor Analysis (EFA) in SPSS. EFA analysis is a statistical method used to shrink and reduce data. It is often aimed at simplifying an initial set of complex variables into a set of smaller variables in the form of factors. In this study, five groups of factors (Figure 2) with 27 observed variables are included in the survey to find the groups of factors that affect the needs for higher degree of the LIM alumni.

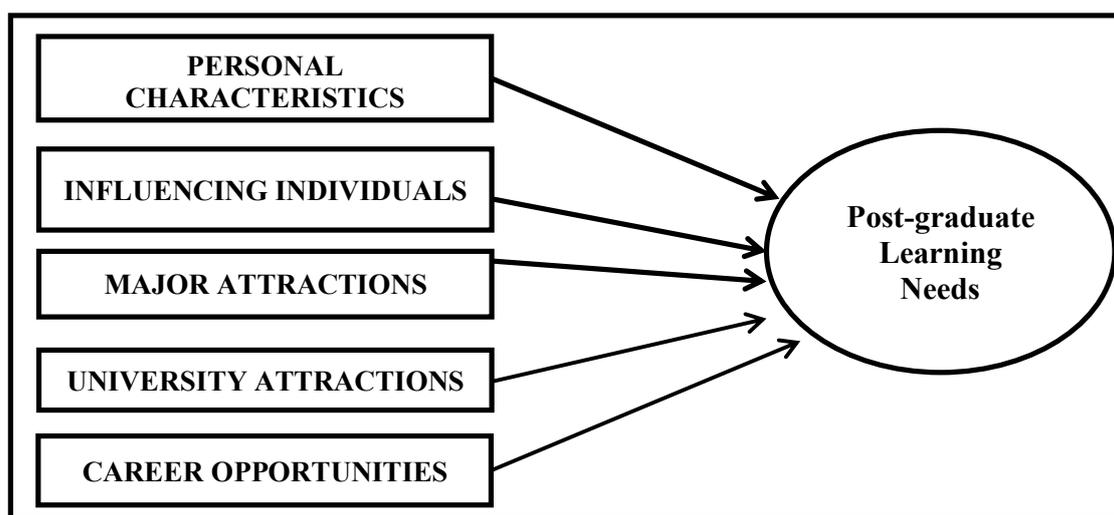


Figure 2. Model of impacting factors

Of the 27 observed variables to describe the components in the model, the factors are coded, with the minimum number of variables for a factor of 4 and a maximum of 7. Testing coefficient Cronbach's Alpha of each observed groups is a requirement in the EFA. Results of reliability test by coefficient Cronbach's Alpha (Table 1) show that the average Cronbach's Alpha is .872 and each single one is  $> 0.6$ . Thus, all 27 observed variables were eligible to be included in the analysis of the EFA.

Table 1

#### Cronbach's Alpha

No.	Observed groups	Code	Cronbach's Alpha	Observed variables
1	Personnel Characteristics	PC	.896	4
2	Influencing Individuals	II	.834	6
3	Major Attractions	MA	.856	6
4	University Attractions	UA	.938	7
5	Career Opportunities	CO	.838	4
Total			.872	27

In terms of conditions for implementing EFA, the number of observed variables in the five factor groups in Figure 2 and Table 1 are greater than 3, which satisfies the EFA requirements (Field, 2000; Habing, 2003; Stevens, 2002). In addition, the number of samples is 155, which also meets the minimum requirement of 50 and 100 ideal observations by Hair, Black, Babin, and Anderson (2009). Furthermore, with Bartlett and KMO Verification, the results of EFA analysis (Principal components with Varimax rotation) showed that KMO (Kaiser - Meyer - Olkin measure of sampling adequacy) =

0.796 satisfies  $0.5 \leq \text{KMO} \leq 1$  to implement EFA and factor analysis relevant to research data.

Table 2  
*KMO and Bartlett's Test*

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.796
Bartlett's Test of Sphericity	Approx. Chi-Square	413.528
	df	55
	Sig.	.000

Data in Table 2 show that  $\text{KMO} = 0.796 > 0.70$  should be at the allowable level of EFA (Kaiser, 1974). Bartlett's test results are 413,528 with the observed variables in the overall correlated with each other with significance  $\text{sig.} = 0.000 < 0.05$ . This proves that the data used for factor analysis is perfectly appropriate. There are three factors extracted at the stop eigenvalues of 1.245 and the extracting variance is 79.602% > 50% (Table 3). The loading factor of all variables is > 0.796 and the research has reached over the minimum sample size > 50 (Hair et al., 2009).

Table 3  
*Total Variance Explained*

Component	Total Variance Explained								
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.555	50.501	50.501	5.555	50.501	50.501	4.468	40.618	40.618
2	1.956	17.782	68.283	1.956	17.782	68.283	2.569	23.351	63.969
3	1.245	11.320	79.602	1.245	11.320	79.602	1.720	15.634	79.602
4	.547	4.969	84.572						
5	.435	3.951	88.523						
6	.376	3.421	91.944						
7	.283	2.572	94.515						
8	.200	1.821	96.337						
9	.188	1.712	98.049						
10	.137	1.245	99.294						
11	.078	.706	100.000						

Extraction Method: Principal Component Analysis.

The results of factor analysis with rotation matrix (2 times) show that 3 of 5 observed factor groups have an impact on post-graduate learning needs (Table 4 & 5). However, out of the 27 observed variables, only 11 ones were influential (Table 5). The

first group of impacting factors “University Attractions” coded UA has 6 influential variables. They are acceptable tuition (UA3), reasonable living expenses (UA4), suitable and convenient geographical location (UA1), library with various learning resources (UA5), up-to-date reference materials for theses (UA6), and post-graduate dormitory (UA2). The second group of impacting factors “Career Opportunities” coded CO has three influential variables, including easy to find job after graduating (CO1), high salary (CO2), and good promotion (CO3). Two impacting factors of the third group “Influencing Individuals” coded II are known as friends (II5) and family (II2).

Table 4  
*Rotated Component Matrix*

	Rotated Component Matrix <sup>a</sup>		
	1	2	3
Acceptable tuition	.891		
Reasonable living expenses	.872		
Suitable and convenient geographical location	.855		
Library with various learning resources	.849		
Up-to-date reference materials for theses	.833		
Post-graduate dormitory	.747		
Easy to find job after graduating		.895	
High salary		.874	
Good promotion		.869	
Friends			.887
Family			.830

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Table 5  
*Impacting Factors on Post-Graduate Learning Needs*

No	Observed Groups	Observed variables	Code	N <sup>o</sup> of Variables
1	University Attractions	Acceptable tuition	UA3	6
		Reasonable living expenses	UA4	
		Geographical location	UA1	
		Library with various learning resources	UA5	
		Up-to-date reference materials for theses	UA6	
		Post-graduate dormitory	UA2	
2	Career Opportunities	Easy to find job after graduating	CO1	3
		High salary	CO2	
		Good promotion	CO3	
3	Influencing Individuals	Friends	II5	2
		Family	II2	
Total				11

In order to determine the influence level of factors on post-graduate learning needs, multivariate regression analysis should be carried out. Multivariate regression method is a method of estimating a single regression model with one or more independent variables. When the regression model consists of many dependent variables, the method of estimating this model is called Multivariate Multiple regression (Hair et al., 2009). In other words, multivariate regression analysis is a feature of SPSS that helps identify factors that contribute a lot / little / or not to the change of independent variables.

**Table 6**  
*Model Summary*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.813 <sup>a</sup>	.662	.625	.40453

a. Predictors: (Constant), CO, UA, MA, II, PC

Data in Table 6, the coefficient of determination of R<sup>2</sup> is 0.662, indicating the relationship between the factors quite closely. At the same time, the coefficient R<sup>2</sup><sub>adj</sub> is 0.625 < R<sup>2</sup> showed that the independent variable did not explain further for the dependent variable (D. T. Nguyen, 2012) and more than 50% of the variance of the decision to study master's degree was explained by 5 independent variables: PC, II, MA, UA, and CO.

**Table 7**  
*Multivariate Multiple Regression*

Model	Coefficients <sup>a</sup>						Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Tolerance	VIF
	B	Std. Error	Beta					
1 (Constant)	.696	.390			1.785	.081		
PC	.188	.144	.200		1.310	.197	.315	3.178
II	.177	.117	.194		1.514	.137	.447	2.238
MA	.122	.100	.156		1.217	.230	.445	2.246
UA	.240	.110	.254		2.179	.034	.540	1.852
CO	.148	.132	.166		1.128	.265	.341	2.931

a. Dependent Variable: F6

According to the coefficient theory, VIF of which group of high-value factors will have the strongest influence on post-graduate learning needs of the LIM alumni. To determine this, phenomenon of multicollinearity between independent variables should be considered. Data of Table 7 shows four independent variables (PC, II, MA and CO) with multi-collinear signs. Multicollinearity is the phenomenon of independent variables in the linear interdependence model. According to D. T. Nguyen (2012), the signs to identify multicollinearity are: If the magnification coefficient variance VIF (variance inflation factor) > 2, there are signs of multicollinearity, this is undesirable. If VIF > 10 is sure to have multicollinearity. If VIF < 2: not being multi-collinear. In addition, the acceptance value (Tolerance) is considered by the Tolerance = 1 / VIF formula. This coefficient is in the left column of the VIF coefficient. If the Tolerance coefficient is less than 0.5, there are signs of multicollinearity, this is undesirable. If the value of Tolerance is less than 0.1,

then there is definitely a multicollinearity. According to the Multivariate Multiple Regression of Table a, it is clearly that University attractions (UA) are the most powerful and unique group of factors (VIF = 1,852) to the alumni study decision. The impacting levels of the remaining groups of factors could not be determined because of the multicollinearity phenomenon. This means that there are certain influences among other groups of factors, so it is impossible to identify their influence on the independent variable (the decision to study Master).

### **Possible Solutions to Attract More Candidates to Study for Master's Degree**

Findings of the study indicate that University attractions (UA) are the most powerful and unique group of factors to master's degree learning needs. Therefore, university should have proper action plans including policies and marketing strategies related to this group of factors. First of all, university has acceptable tuitions for master's degree program as indicated in the government guidelines. In addition, a reference source of tuitions from other universities in the region should be made so that alumni can view, compare and make their own decisions on which university they should enrol. In terms of the university marketing strategies, descriptions of suitable and convenient geographical location of Can Tho University have to be formed. Furthermore, explanation of reasonable living expenses in Can Tho city should be mentioned so as to draw much more attentions from the alumni. Especially, marketing booklets should introduce about the university Learning Resource Centre – a modern library with various learning resources and up-to-date reference materials for masters' theses. Last but not least, university has allocated a post-dormitory with capacity of 5,000 post-graduate students. Can Tho university dormitories are a security and convenient ones with system of surrounding fences, parking lots, security cameras, supermarkets, telecommunications, and automatic teller machines. Quality of services for students in the post-dormitory keep on being improved by modern equipment and technology applications.

### **Discussion**

Findings about impacting factors on master's degree learning needs in Can Tho University are in line with former studies. Once again, these research findings emphasised that the alumni would like to pursuit their higher study dreams due to job opportunities as indicated in the research conducted by McCook and Moen (1992) and Cherry et al. (2011). In particular, research data illustrates that candidates with master degrees are more favour to be recruited for better jobs due to their higher educated professional. Furthermore, library materials as well as reference resources for masters' theses are found out as an influencing element to encourage alumni to apply for Master study. This also supports to the literature (Cherry et al., 2011; McCook & Moen, 1992). One interesting thing drawn from the research data is more than half of LIM alumni (n = 66; 55.9%) are working in other organisations besides public libraries (n = 8; 6.8%), academic libraries (n = 40; 29.9%) and information organisations (n = 4; 3.4%). In the meanwhile, percentage of LIM graduates at public libraries (n = 4; 50%) want to study master's degree more than those working at other places. For example, it is 37.5% (n = 15) in academic libraries and 37.9% (n = 25) in other organisations. This can be inferred that public libraries in Vietnam are in innovation process and many qualify librarians are required to support the users. It is fit into Vietnamese government policy in developing public library system to meet the needs of the community in the information era (Ministry of Culture Sports and Tourism, 2013). It is high quality human resources that can solve the problems related to library development.

### **Limitations**

The number of LIM graduates involved in this research is limited. After graduating from the universities, LIM alumni are more likely to work fulltime in their companies; thus, they have little chance to frequently contact the academic advisors and teaching staff in the Library Department. It is hard to invite them to participate in the study.

### **Recommendation**

Further research should consider how to keep in touch with alumni so as to collect rich data in other future research. Library Department should organise certain workshops, training courses or conferences to involve alumni keep their profiles updated through email or phone lists. With the applications of technology and social network, Zalo, Facebook, What's up or Viber can be the good ways for LIM alumni to network or communicate with the academic advisors and faculties in the Library Department to share information about research engagement and other professional development conferences, seminars and training workshops. It is possible to encourage academic advisors of each class to keep on communicating with students, sharing information and inviting them to involve in the certain research for professional development. Furthermore, the alumni committee board of the university should regularly inform the alumni of the university innovation and changes as well as inviting them to update their contact information.

### **Conclusion**

Post-graduate learning need is a proper demand of every graduate who desires to master further knowledge and gets promoting in their professionals. The findings indicate that approximate one-third of LIM alumni have the aspirations to study for higher degrees. Among five groups of observed variables on the impacting factors of this need, there are only three affecting groups of factors. They are university attractions, job opportunities and influencing individuals. In order words, among 27 observed variables, there are only 11 variables impacting the post-graduate learning needs of the LIM alumni. Six out of these 11 variables have strong influence to study for higher degrees. They are acceptable tuitions, reasonable living expenses, suitable and convenient geographical location, library with various learning resources, up-to-date reference materials for masters' theses, and post-graduate dormitory. Possible strategies to attract more candidates to study master's degree are also presented in related to these impacting factors. These research findings are very helpful for Can Tho University. They are also a valuable reference for any university and other tertiary institutions in launching certain strategies to attract more candidates to enroll in their master's degree training programs to build a cohort of qualified human resources for the community.

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