

**MINISTRY OF EDUCATION AND TRAINING
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PHAN ANH TIEN

**VALUE CO-CREATION IN HIGHER
EDUCATION: AN EMPIRICAL STUDY IN
VIETNAM**

Major: Business administration

Code: 9340101

SUMMARY OF THESIS

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CHAPTER 1: INTRODUCTION

1.1 Research motivation

1.1.1 Practical context

In the service sector, higher education institutions play an important role in economic growth by providing the necessary knowledge and skills for social sustainability (Pinna et al., 2023; Chahal et al., 2024). Higher education has been experiencing unexpected fluctuations and new changing trends. The spread of the COVID-19 pandemic in 2020-2021 has caused shock and fundamentally changed the global higher education picture (Paudel, 2021). However, the prolonged COVID-19 pandemic, viewed from a positive perspective, it is a lever that opens up opportunities to promote the digital transformation process in higher education. Universities are facing new challenges such as budget cuts, increased competition in the education market, high pressure to adjust training programs, and the growth of training quality standards to meet employer requirements in an increasingly competitive job market (Voropai et al., 2019; Dollinger & Lodge, 2020; Zarandi et al., 2022; Pinna et al., 2023; Pawar, 2024), and ensuring that all students succeed academically (López et al., 2023).

Educational services remain a core pillar of universities, contributing to building competitiveness (Cavallone et al., 2022). In the face of such challenges, the real problem is deeper and more internalized. It is the shift in focus to learner-centered education of universities by using value co-creation strategy as a marketing strategy to gain a competitive edge and move toward a sustainable future (Judson & Taylor, 2014; Voropai et al., 2019; Pinna et al., 2023). Díaz-Méndez and Gummesson (2012) suggested that higher education institutions need to shift their perspective from a value

delivery approach – doing something "to" students – to a co-creation approach – doing something "with" students. Accordingly, universities need to engage students in the co-creation, including academic and non-academic aspects (Beier et al., 2022), and leverage students' resources to interact together to create and optimize learners' educational experiences.

Generally, students in the Asia-Pacific region may be less eager to participate in class discussions and more passive than their peers in the West. Therefore, encouraging interaction in learning can be a challenge when it comes to teaching in Asia (Aggarwal et al., 2017). Since these characteristics may influence value co-creation in learning, it is important to identify the necessary antecedents and consequences of value co-creation to attract the active participation of students and universities.

1.1.2 Theoretical context

In higher education, value co-creation is a process in which students' resources are integrated with the university's resources to facilitate a range of activities and experiences that encourage exchange and interaction, thereby creating value for both students and universities, promoting improved practice and innovation, and potentially enhancing students' ability to take an active role in their education (Dollinger et al., 2018).

Value co-creation has attracted considerable attention in practice and research in higher education over the past decade (Zarandi et al., 2024). However, compared with other fields, literature development on value co-creation in higher education institutions is still in its early stages (Goi et al., 2022). Furthermore, despite the growing interest in value co-creation in emerging economies, more scientific evidence is still needed on the effect of

value co-creation on students, who often have lower academic skills (de Azambuja et al., 2021).

In terms of the antecedents and consequences of value co-creation, scholars have proposed the following focuses for future research: (1) in-depth analysis using quantitative techniques to investigate the antecedents and perceived benefits for students and universities from value co-creation (Magni et al., 2020; Zarandi et al., 2022; Zarandi et al., 2024); (2) investigating the moderating factors that may impact students' co-creation in higher education experience (Zarandi et al., 2022; Zarandi et al., 2024); (3) exploring resources of stakeholders and their involvement in integrating them for value co-creation based on service dominant logic because this perspective allows for greater convergence between marketing goals and effective learning goals (Cruz et al., 2022). (4) Examining aspects related to university lecturers and staff to promote students' value co-creation or with other stakeholders (Cruz et al., 2022).

1.1.3 Research gaps

The systematic literature review indicates that there are some research gaps on the antecedents and consequences of value co-creation that this study will fill, including:

First, the direct and indirect positive effects of students' social resources (informational and emotional support from relationships in linking and bridging social networks) through students' cultural resources and self-efficacy on value co-creation to capture details of important implications have not been investigated.

Second, although moderating factors affecting students' value co-creation in higher education experiences have been recommended (Zarandi et al., 2022; Zarandi et al., 2024), empirical research on the

moderating role of intrinsic motivation in the value co-creation model is still scarce.

Third, while aspects of lecturers affecting students' value co-creation are potential research directions (Cruz et al., 2022), there is still a lack of exploration of the relationship between student education and value co-creation. In addition, previous studies have only considered the direct effect of students' cultural resources, self-efficacy, and trust in lecturers on value co-creation. Therefore, the mediating role of these factors in the relationship between student education and value co-creation need to examine for suggesting appropriate managerial implications.

Fourth, in terms of consequences, although student-university identification is an important benefit of value co-creation for higher education institutions (Duque, 2014; Dollinger et al., 2018), empirical evidence of this relationship is still limited.

Fifth, many previous studies have found a direct effect of value co-creation on students' cognitive learning outcomes (Duque, 2014; Yang et al., 2016; Torkzadeh et al., 2020; Wang et al., 2022). However, this relationship will change in extent when there is the presence of learners' personal commitment to learning, as proposed by Duque (2014), which needs to be investigated.

1.2 Research objectives and research questions

1.2.1 General research objective

This study investigates the impact mechanism of students' social resources and student education on students' value co-creation to improve cognitive learning outcomes and form a student-university identification.

1.2.2 Specific research objectives

- Examining direct and indirect effects of students' social resource (informational and emotional support from connections in bonding and bridging social networks) on value co-creation by students' cultural resource and self-efficacy
- Investigating moderating role of intrinsic motivation on relationships between student's operant resources (social resource, students' cultural resource and self-efficacy) and value co-creation
- Testing the direct and indirect effects of student education on value co-creation through student's cultural resource, self-efficacy and trust in lecturer
- Verifying the impact of student's value co-creation on student-university identification
- Investigating the moderating effect of students' personal commitment on relationship between cognitive learning outcomes and value co-creation
- Proposing practical implications for university managers, lecturers, and students to promote and participate in value co-creation.

1.2.3 Research questions

- Are there direct and indirect effects of students' social resources on value co-creation through students' cultural resources and self-efficacy?
- Does students' intrinsic motivation moderate the relationship between students' operant resources (cultural, social, and self-efficacy) and value co-creation?

- Does student education have direct and indirect effects on value co-creation through students' cultural resources, self-efficacy, and trust in lecturers?
- Does student's value co-creation affect student-university identification?
- Does students' personal commitment moderate the relationship between value co-creation and cognitive learning outcomes?
- What practical implications can be drawn for university managers, lecturers, and students to promote and participate in value co-creation?

1.3 Object and scope of the study

1.3.1 Object of the study

Direct, indirect, and moderating relationships in the value co-creation model among factors, including students' operant resources (cultural resource, self-efficacy, and social resource), student education, trust in lecturer, intrinsic motivation, value co-creation, student-university identification, cognitive learning outcomes, and students' personal commitment

1.3.2 Scope of the study

- Limited space: Key public and private higher education institutions in Ho Chi Minh City, Vietnam (in the top 80 universities according to Webometrics 2024).
- Survey object: Full-time undergraduate students in their second, third, and fourth years majoring in business and management.
- Survey period: 8/2023 - 8/2024.

1.4 Research methodology

The study employed both qualitative research method and quantitative research method

- Qualitative pilot research: The study uses a systematic literature review to identify research gaps and build theoretical models, and group discussions to adjust scales.
- Quantitative research: In the first phase of the study, quantitative preliminary research was conducted with a sample of 230 students to assess the reliability of the scales. Formal quantitative research was then conducted to test the research hypotheses with a sample of 737 students surveyed online and offline using convenience sampling.

SPSS 20 and SmartPLS4 v.4.1.0.3 software were used to assess reliability of the scales, measurement model, and structural model.

1.5 Research contributions

1.5.1 Theoretical contributions

First, drawing upon service-dominant logic, this study investigated and confirmed the direct and indirect positive effects of students' social resources (informational and emotional support from relationships in linking and bridging social networks) through students' cultural resources and self-efficacy on value co-creation.

Second, this study examined and provided new empirical evidence regarding the positive moderating role of intrinsic motivation in the relationship between students' operant resources (cultural and social resources) and value co-creation.

Third, this dissertation explored and provided empirical evidence on the positive influence of student education (aspects of lecturers affecting students' value co-creation that have been less investigated in previous studies) on their value co-creation. In

addition, while previous studies have only considered the direct impact of students' cultural resources, self-efficacy, and trust in lecturers on value co-creation, the mediating role of these factors in the relationship between student education and value co-creation examined in this study has provided a more comprehensive understanding of impact mechanisms.

Fourth, this study confirmed a positive relationship between value co-creation and student-university identification. This relationship has only been proposed previously, and this study provides empirical evidence for contributing to the development of the literature.

Fifth, this study validated the new effect mechanism of students' personal commitment to learning on the relationship between value co-creation and cognitive learning outcomes.

Sixth, this study combined different theories, such as service dominant logic, self-determination theory, self-efficacy theory, and commitment-trust theory to test the hypotheses. This allows for a better explanation of the impact mechanisms and provides more comprehensive insights into the problem. Data were collected from different higher education institutions in Vietnam, an emerging economy where studies on value co-creation and antecedents such as students' operant resources are still scarce, contributing to better generalization of research results and literature development.

Finally, compared with existing research models that have considered all three student operant resources under a synthetic concept, this study clarifies the impact of each student's operant resource and the internal impact of these three operant resources on their value co-creation to capture important implications in detail. This study also integrated university factors (student education) to

enhance students' operant resources and promote their participation in value co-creation. Therefore, the explanatory power of the model is better than that of previous studies.

1.5.2 Managerial contributions

This study is expected to provide universities with a tool for assessing the level of value co-creation between students and lecturers. From there, universities have convincing evidence to implement solutions to strengthen student education, enhance students' operant resources, improve students' trust in lecturers, and design training programs and courses that are compatible with students' intrinsic motivation to allow them to use all operant resources effectively, which increases their participation in value co-creation activities.

The findings help learners become more aware of their roles and responsibilities towards the educational value created during the learning process by actively participating with lecturers in learning activities. The findings are expected to explain the different components of students' operant resources that they need to use to actively engage in value co-creation. Moreover, learners should have a personal commitment to learning if they want to gain better cognitive learning outcomes.

1.6 Dissertation outline

Dissertation includes five chapters: Introduction, Literature review and research model, Research design, Research results and discussion, Conclusion and implications

CHAPTER 2: LITERATURE REVIEW AND RESEARCH MODEL

2.1 Value co-creation in marketing literature and higher education

Value co-creation is a broad concept that encompasses several approaches (Jamouli et al., 2020). Although researchers have stated many different definitions of value co-creation, the common point of value co-creation is a collaborative process involving businesses, stakeholders, and customers in the service ecosystem with resource integration to create value.

Value co-creation can even be applied in the higher education sector to represent a collaborative and constructive relationship between universities and students (Díaz-Méndez & Gummesson, 2012; Fagerstrøm & Ghinea, 2013; Judson & Taylor, 2014; Elsharnouby, 2015; Díaz-Méndez et al., 2019; Pinna et al., 2023). Through a co-creation approach, understanding the needs of students will enable universities to provide valuable learning experiences (Schlesinger et al., 2017).

2.2 Systematic literature review of value co-creation in higher education

2.2.1 Introduction to systematic literature review

2.2.2 Search strategy and selection criteria

2.2.3 Analysis process

2.2.4 Results of systematic literature review

2.2.5 Summary of systematic literature review on value co-creation in higher education

Scholars have developed three value co-creation processes with a clear analysis of their nature and applicability in higher education. Moreover, antecedents of value co-creation are classified into three

groups: (1) closely linked to the student (student's operand and operant resource, personal drivers, cognitive outcomes, relational drivers, participation, and interaction factor), (2) university (university resources, image and brand university, policy and culture, support and feedback process, technological-related factors), and (3) supporting factors in the co-creation context. The consequences of value co-creation can be grouped into two levels: (1) Student level (short-term cognitive outcomes, long-term cognitive outcomes, affective outcomes) and (2) University level (enhanced operation and marketing performance, other improvement, effective teaching and positive experience, effective time management, other improvements for lecturer).

2.3 Underpinning theories

2.3.1 Service-Dominant Logic

2.3.2 Self-Determination Theory

2.4 Research concepts

2.4.1 Operant resources

2.4.1.1 Social resource

2.4.1.2 Self - efficacy

2.4.1.3 Cultural resource

2.4.2 Student education

2.4.3 Intrinsic motivation

2.4.4 Trust in lecturer

2.4.5 Value co-creation

2.4.6 Cognitive learning outcome

2.4.7 Personal commitment

2.4.8 Student-University identification

2.5 Hypothesis

Hypothesis 1 (H_1): Students' social resource positively influences value co-creation

Hypothesis 2 (H_2): Students' cultural resource positively influences value co-creation

Hypothesis 3 (H_3): Students' self-efficacy positively influences value co-creation

Hypothesis 4a (H_{4a}): Students' intrinsic motivation positively moderates effect of social resource on value co-creation

Hypothesis 4b (H_{4b}): Students' intrinsic motivation positively moderates effect of cultural resource on value co-creation

Hypothesis 4c (H_{4c}): Students' intrinsic motivation positively moderates effect of self-efficacy on value co-creation

Hypothesis 5 (H_5): Student education has a positive effect on value co-creation

Hypothesis 6 (H_6): Trust in lecturer has a positive effect on value co-creation

Hypothesis 7a (H_{7a}): Students' social resource positively influences value co-creation through students' cultural resource

Hypothesis 7b (H_{7b}): Students' social resource positively influences value co-creation through students' self-efficacy

Hypothesis 8a (H_{8a}): Student education has a positive effect on value co-creation through students' cultural resource

Hypothesis 8b (H_{8b}): Student education has a positive effect on value co-creation through students' self-efficacy

Hypothesis 8c (H_{8c}): Student education has a positive effect on value co-creation through trust in lecturer

Hypothesis 9 (H_9): Value co-creation has a positive effect on students' cognitive learning outcome

Hypothesis 10 (H_{10}): Students' personal commitment positively moderates effect of value co-creation on students' cognitive learning outcomes

Hypothesis 11 (H_{11}): Value co-creation has a positive impact on student-university identification

2.6 Research model

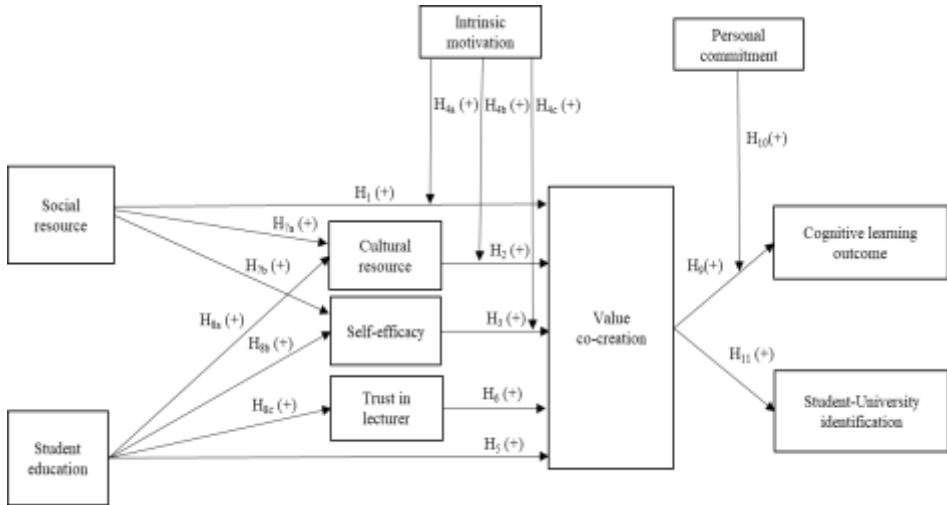


Figure 2.7. Research model

CHAPTER 3: RESEARCH DESIGN

3.1 Discuss research method used

3.2 Research process

The research process consisted of five steps, as shown in Figure

3.1

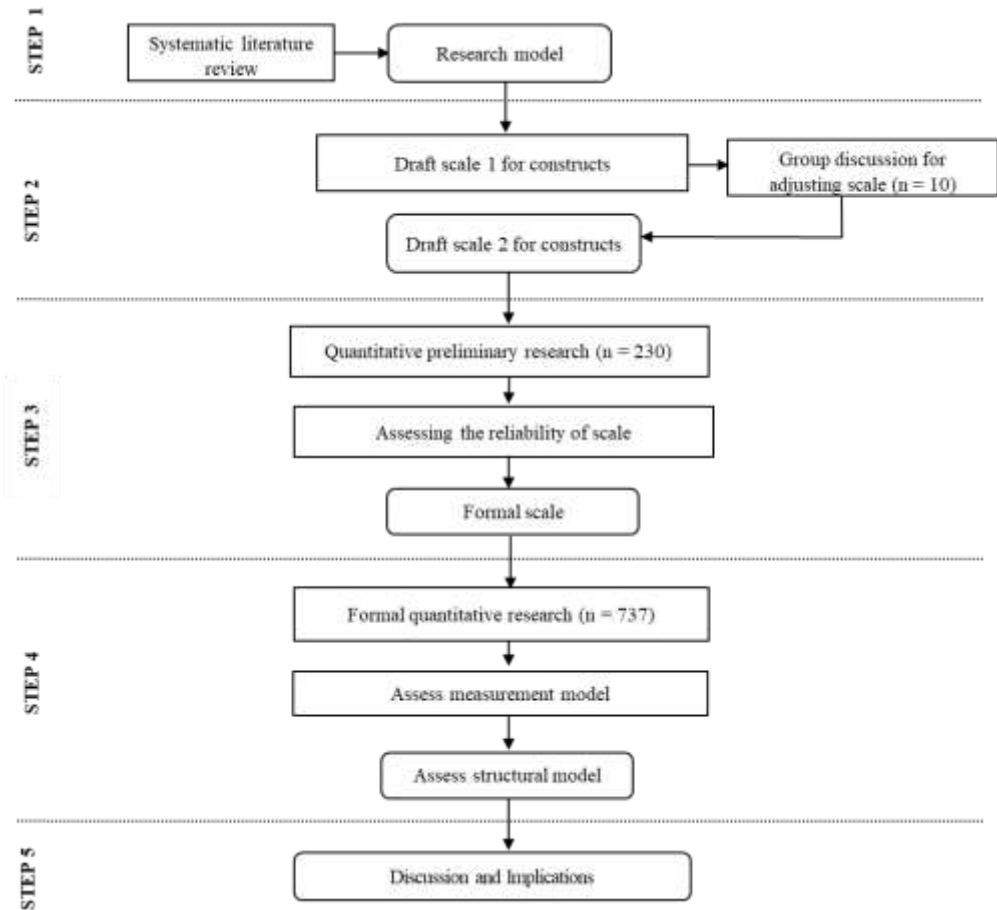


Figure 3.1. Research process

3.3 Sampling and sampling methods

For this study, the author expects the minimum path coefficient to be statistically significant at the 5% level, that is, between 0.11 and 0.20; therefore, the minimum sample size required is 155. This study expects to obtain over 700 valid samples selected using a non-probability method (convenience method).

The survey respondents selected for this study were full-time students. They are in the second, third, and fourth years of study majoring in business and management at 15 key public and non-public universities in Ho Chi Minh City (Top 80 of Webometrics Ranking of Universities in Vietnam in 2024).

3.4 Data collection and processing method

The study collected data using a combined method (online and offline) simultaneously in the same period. The PLS-SEM technique was used to assess the measurement and structural models using SmartPLS 4.1.0.3 and SPSS 20 software.

3.5 Scale measurements

The study adopted and adapted a scale from validated scales of previous studies for ten constructs, with a total of 42 items.

- Social resource scale (Hau, 2019)
- Culture resource scale (Hau, 2019)
- Self-efficacy scale (Schwarzer & Jerusalem, 1995)
- Intrinsic motivation scale (Pintrich, 1991)
- Trust in lecturer scale (Hennig-Thurau et al., 2001)
- Student education scale (Eisingerich & Bell, 2008b)
- Value co-creation scale (Nysveen & Pedersen, 2014)
- Personal commitment scale (Wilkins et al., 2016)
- Cognitive learning outcome scale (Tho, 2019)

- Student-university identification scale (Wilkins et al., 2016)

3.6 Quantitative preliminary research

3.6.1 Sampling

The sample size was calculated based on the number of items in a 5:1 ratio (Hair et al., 2009). In the research model, there are a total of 10 constructs with 42 items. Therefore, the minimum sample size in the preliminary study was 210. After eliminating invalid survey responses, the remaining sample size of 230 was used for the preliminary quantitative study.

3.6.2 Results of pilot-scale testing

The results showed that all ten constructs in the model met Cronbach's reliability to conduct formal quantitative research.

CHAPTER 4: RESEARCH RESULTS AND DISCUSSION

4.1 Sample description

Table 4.1. Descriptive summary of sample

Sample characteristics		Frequency	Percentage
Gender	Male	248	33.6%
	Female	489	66.4%
Academic year level	Second-year	222	30.1%
	Third-year	252	34.2%
	Fourth-year	263	35.7%
Type of university	Public	474	64.3%
	Non-public	263	35.7%
Total		737	100%

4.2 Statistical analysis of research concepts

Table 4.2. Statistical summary of research concepts

Construct	Min	Max	Mean	Skewness		Kurtosis	
				Statistic	Standard Error	Statistic	Standard Error
CR	2	7	5.74	-0.26	0.09	-0.62	0.18
SR	1	7	5.64	-0.72	0.09	0.37	0.18
SELF	2	7	5.29	-0.45	0.09	0.05	0.18
VCC	3	7	5.35	0.27	0.09	-0.92	0.18
IM	1	7	5.50	-0.27	0.09	-0.35	0.18
SE	1	7	5.76	-1.00	0.09	1.55	0.18
TRUST	1	7	5.67	-0.74	0.09	0.60	0.18
SUI	1	7	5.66	-0.93	0.09	1.14	0.18
PC	1	7	5.41	-0.64	0.09	0.86	0.18
CLO	1	7	5.79	-0.69	0.09	0.78	0.18

4.3 Quantitative formal research

4.3.1 Common method bias

One extracted total factor explained 37.103% of the variance of the observed variables and was below the 50% threshold; therefore, there was no common method bias problem for the surveyed data (Podsakoff et al., 2003).

4.3.2 Measurement model

The reliability of the scales, convergent validity, and discriminant validity of all constructs were assessed. As a result, the measurement model met the requirements according to the reference standards of Hair et al. (2021).

4.3.3 Structural model

- **Assess multicollinearity issues, model's explanatory power, model's predictive accuracy, and model's out-of-sample predictive power**

The values met the requirements and were significant according to the reference standard of Hair et al. (2021).

- **Hypotheses tests results**
 - ***Direct effect***

Table 4.10. Test results of direct effect

Hypotheses	Structural path	Original sample	Standard deviation	P-values	Test result
H ₁	SR -> VCC	0.123	0.034	0.000	Accepted
H ₂	CR -> VCC	0.143	0.032	0.000	Accepted
H ₃	SELF -> VCC	0.127	0.031	0.000	Accepted
H ₅	SE -> VCC	0.141	0.035	0.000	Accepted
H ₆	TRUST -> VCC	0.143	0.034	0.000	Accepted
H ₉	VCC -> CLO	0.495	0.032	0.000	Accepted
H ₁₁	VCC -> SUI	0.463	0.027	0.000	Accepted

- *Moderating effect*

Table 4.11. Test results of moderating effect

Hypotheses	Structural path	Original sample	Standard deviation	P-values	Test result
	IM -> VCC	0.227	0.032	0.000	Accepted
H _{4a}	IM x SR -> VCC	0.128	0.032	0.000	Accepted
H _{4b}	IM x CR -> VCC	0.125	0.032	0.000	Accepted
H _{4c}	IM x SELF -> VCC	0.009	0.029	0.760	Unaccepted
	PC -> CLO	0.128	0.035	0.000	Accepted
H ₁₀	PC x VCC -> CLO	0.132	0.035	0.000	Accepted

- *Indirect effect*

Table 4.12. Test results of indirect effect

Hypotheses	Structural path	Original sample	Standard deviation	P-values	Test result
H _{7a}	SR -> CR -> VCC	0.050	0.012	0.000	Accepted
H _{7b}	SR -> SELF -> VCC	0.045	0.012	0.000	Accepted
H _{8a}	SE -> CR -> VCC	0.057	0.014	0.000	Accepted
H _{8b}	SE -> SELF -> VCC	0.042	0.012	0.000	Accepted
H _{8c}	SE -> TRUST -> VCC	0.095	0.024	0.000	Accepted

CHAPTER 5: CONCLUSION AND IMPLICATIONS

5.1 Conclusion

The study confirmed the direct and indirect effects of students' social resources on value co-creation through students' cultural resources and self-efficacy. Students' intrinsic motivation positively moderates the relationship between students' operant resources (cultural and social resources) and value co-creation. The findings also showed that student education directly and indirectly affects value co-creation through cultural resources, self-efficacy, and trust in lecturers. In terms of consequences, students' value co-creation impacts cognitive learning outcomes with the positive moderation of personal commitment to learning. In addition, students' value co-creation positively affects student-university identification.

5.2 Implications

5.2.1 Theoretical implications

First, this study confirmed the direct effect of students' social resources (informational and emotional support from connections in linking and bridging social networks) on value co-creation. This result addresses the limitations of previous studies that did not consider the benefits gained from participating in students' social networks. In addition, social resources indirectly affect value co-creation through students' cultural resources and self-efficacy. This also shows that there are internal interaction mechanisms among students' operant resources that influence value co-creation, which have rarely been considered in prior studies. This result also suggests that future studies may consider other relationships between students' operant resources that lead to value co-creation.

Second, the positive moderating role of intrinsic motivation in the relationship between students' operant resources (cultural and social resources) and students' value co-creation also contributes to the existing literature. Studies on value co-creation have emphasized the direct role of students' intrinsic motivation in activating value co-creation (Hasan & Rahman, 2016). However, the moderating role of intrinsic motivation in the relationship between students' operant resources and value co-creation has not been considered. This result implies that exploring opportunities to enhance the relationship between students' operant resources (cultural and social resources) and students' value co-creation by other moderating variables is also a potential research direction.

Third, while the aspects of lecturers that influence students' value co-creation have been less investigated in previous studies, this study provides empirical evidence of the positive impact of student education on value co-creation. In addition, the indirect effect of students' education on value co-creation through students' cultural resources, self-efficacy, and trust in lecturers are also new findings that enrich the impact mechanism and literature. This opens up further research directions to clarify the role of student education in value co-creation through other mediating variables, thereby contributing to the literature development in higher education.

Fourth, in terms of consequences, a benefit of value co-creation is student-university identification, which has also been verified in this study. Interaction and collaboration between students and lecturers towards common values will build connections with the university. This relationship has only been proposed previously (Dollinger et al., 2018; Duque, 2014), and this study provides

empirical evidence. This result enriches the existing literature and opens up research directions on the existence of a relationship between value co-creation and student-university identification in other national contexts.

Fifth, the relationship between value co-creation and students' cognitive learning outcomes is also enhanced by students' personal commitment to learning, which is another new finding of this study. While cognitive learning outcomes are the main goal of the university learning process, exploring the existence of other moderating variables in the relationship between value co-creation and students' cognitive learning outcomes is a potential suggestion for future research.

Sixth, this study combined theories such as service-dominant logic, self-determination theory, self-efficacy theory, and commitment-trust theory to test hypotheses to better explain the impact mechanisms and provide a more comprehensive understanding. Data were collected from different universities in Vietnam, an emerging economy where studies on the topic of value co-creation are still scarce, thus contributing to better generalization of the research results.

Finally, the results provide further empirical evidence on the need to separate types of students' operant resources to assess their direct and indirect impacts on value co-creation. In addition, integrating university-related antecedents to enhance students' operant resources will increase the model's explanatory power and provide a more complete understanding. Accordingly, this should be considered in the future.

5.2.2 Managerial implications

- **For higher education institution**

Higher education managers need to issue regulations and policies that create more opportunities for students to share and give feedback.

The study also provides educational managers and lecturers with compelling evidence to enhance student education and improve students' trust in lecturers to promote student participation in value co-creation.

The results suggest that there are differences in students' operant resources that influence their propensity to engage in value co-creation. Therefore, universities obtain useful information to segment and target their customers when marketing training programs.

Through understanding students' intrinsic motivation in learning, design related to material course, subjects, teaching methods, training programs, and learning activities need to be carefully considered to create emotions, excitement, arouse curiosity, exploration, and autonomy for students, which allows learners to use all operant resources efficiently to enhance their participation in value co-creation.

- **For student**

The findings help learners become more aware of their roles and responsibilities towards the educational value created during the learning process as they shape their learning experiences by actively participating with lecturers in learning activities.

The findings are expected to explain to students the different components of operant resources that they need to enhance and use to actively engage in value co-creation.

When students are intrinsically motivated to learn, it further strengthens the relationship between their operant resources and value co-creation. Therefore, it is important for learners to discover and clearly define their motivation for learning. If the driving factor for learning is not intrinsic, students need to self-regulate.

Moreover, learners should have personal commitment to learning if they want to gain better cognitive learning outcome.

5.3 Limitations and future research directions

Using additional search databases, such as Web of Science, and keywords to expand the coverage of articles is likely to provide other interesting research gaps.

Future research should expand the scope of the survey to include geographic areas (universities in other big cities of Vietnam), majors (engineering, arts, social sciences), and students at different academic levels (postgraduate, in-service training students).

Further studies on the impact of antecedents, such as students' operant resources, on value co-creation in online teaching should be conducted.

Further empirical research should examine the impact of online learning platforms, learning management systems, and social media tools on students' value co-creation (Pinna et al., 2018; Bond et al., 2020; Goi et al., 2022).

Future research should investigate the comparative effectiveness of different approaches (teaching method co-creation, course co-design, curriculum co-creation, content co-creation, course co-assessment) to develop a better understanding of how to reap the benefits of integrating co-creation into the higher education context.

LIST OF AUTHOR'S PUBLICATIONS RELATED TO THESIS

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