

The Role of Subjective Task Value in Forming Satisfaction and Loyalty Among Vietnamese International Students: A Structural Equation Model

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Abstract Relationship with international students can be beneficial to higher education in terms of financial and human resources. For this reason, establishing and maintaining such relationship are usually pre-eminent concerns for higher education providers. In this study, we extended the application of the disconfirmation-expectation model by incorporating three components from subjective task value (i.e., attainment, utility, and intrinsic) to predict the loyalty of international students toward their host countries. On a sample of 410 Vietnamese students enrolled in higher education institutions in over 15 countries across the globe, we employed structural equation model to validate the conceptual model. Our empirical findings revealed that satisfaction and disconfirmation still play important roles as direct and indirect antecedents of international student loyalty, respectively; nonetheless, the most impactful predictor is intrinsic value which directly and indirectly affects loyalty through the mediating roles of satisfaction and disconfirmation. Meanwhile, our findings also unveiled that attainment value has slight impact, but utility value does not have any impact on loyalty. A number of implications might be withdrawn for heads of universities and policy makers while

practicing in internationalization of higher education as a consequence of these above results.

Keywords International student · Loyalty · Subjective task value · Disconfirmation · Satisfaction

Introduction

Maintaining an enduring relationship with international students has been regarded as a strategic goal for higher education providers. There are two reasons as follows. First, international students nowadays have become an important financing source (Marginson 2007). At the national level, cross-border education has become a key export industry for several countries. For instance, in 2015–2016, international students contributed AUS\$20.3 billion to Australia; the highest ever recorded revenue in the history (Australian Bureau Statistics 2016). International higher education, indeed, has become the third-most important export sector of Australia, just behind iron and coal (University Australia 2016). At the institutional level, as universities across the world are falling victim to cuts in government subsidies, they are seeking additional revenue from foreign markets (Ehrenberg 2012).

Second, international students are increasingly regarded as potentially qualified workers for host countries (Douglass and Edelstein 2009). A recent problem common to developed countries is the shortage of high-qualified workforce in science, technology, engineering, and math (STEM) majors. For instance, Varas (2016) predicted that by 2024, the US would need to recruit about 100,000 foreign STEM personnel.

However, despite the significant role of international students, there is little understanding of the mechanism by

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which student loyalty—a proxy of the enduring relationship between a customer (i.e., student) and a goods or service provider (i.e., higher education provider)—to their educational institution is established. The majority of the extant literature concerning students, from a marketing perspective, seem to overemphasize domestic students while overlooking international ones (Chen 2016; Pham and Lai 2016). According to previous studies (e.g., Field 1999; Khawaja and Dempsey 2008), there are considerable differences between domestic and international students in terms of behavior. This might stem from the fact that each category of students has different inherent concerns. For instance, Khawaja and Dempsey (2008) found that, compared to domestic students, international students have less social support and have tendency to be more isolated due to their spatial distance from home. This leads to their reluctance/unawareness to use supporting services provided by universities, which in turn, influences their satisfaction.

As such, to fill the gap between the extant literature and the loyalty problem mentioned above, this study investigates international student loyalty to the establishments in which they enrolled, as well as factors influencing this attachment through a sample of Vietnamese students studying abroad. Specifically, we aim to investigate the impacts of direct and indirect antecedents of student loyalty in the international higher education setting. By employing two established models, namely, the expectation disconfirmation model (Oliver 1980) and the expectancy-value model of achievement motivation (Eccles 1987), we endeavor to shed some light on international students' loyalty.

Literature Review

Loyalty

Loyalty is a concept that represents the level of enduring relationship between customer and good/service provider. Previous scholars have two approaches to view loyalty. First, some regard loyalty from behavioral perspective, i.e., repurchase a brand, repeat purchase frequency, or relative volume of same brand purchasing (e.g., Tellis 1988), churn (e.g., Ahn et al. 2006) or dropout (e.g., Duque 2013).

Second, there have been other marketing authors examining loyalty from *attitudinal perspective*. Attitudinal loyalty refers to the extent to which consumers disposes of psychological commitment toward the same brand or brand set (Chiou and Droge 2006). There are various ways to measure attitudinal loyalty, for instance: “resistance against better alternatives” (Narayandas 1996), “intention

of word-of-mouth” (Boulding et al. 1993), or “willingness to pay a premium price” (Narayandas 1996).

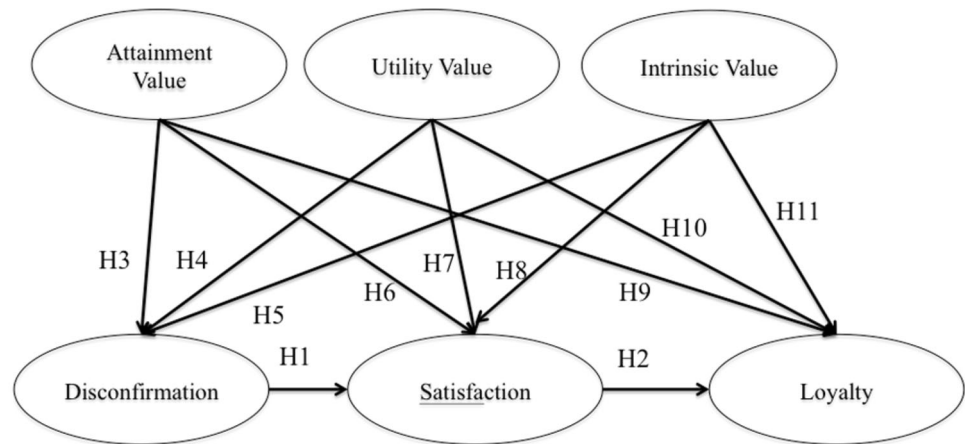
Regarding higher education institutions as service providers, previous marketing and education researchers also conceptualized student loyalty as behavioral component (Helgesen and Nettet 2007) or attitudinal component (Grace and Kim 2008) or combination of both (Hennig-Thurau et al. 2001). Within international higher education context, the loyalty of overseas students is important due to its benefits in terms of finance and qualified human resources as discussed in the Introduction Section.

In this study, we use attitudinal perspective to regard the concept of loyalty. According to Pham and Lai (2016), within international higher education context, attitudinal loyalty, or emotional bond toward international higher education providers, “such as willingness to tell others about advantages of the service” (p. 3), is paramount.

Expectation-Disconfirmation Model

The expectation disconfirmation model was developed as a powerful framework in relationship marketing for explaining the post-purchase behavior and process of customers (Oliver 1980). According to this model, satisfaction is the most influential direct determinant of customer loyalty. Meanwhile, disconfirmation, which is defined as “the difference between a consumer’s pre-purchase expectations and the post-purchase performance of a product or service” (Liao et al. 2007, p. 2807), would act as a direct antecedent of satisfaction and thus an indirect antecedent of customer loyalty. A positive disconfirmation means the customers tend to be satisfied, in which case a higher degree of customer loyalty would be more likely. That is, there would be a higher likelihood to repurchase and higher positive emotion toward the incumbent service/product providers.

In the higher education setting, prior studies have employed the expectation disconfirmation model to examine domestic student loyalty (e.g., Athiyaman 1997). It was expected that the expectation disconfirmation model would be suitable to shed light on international student loyalty. However, the limitation of this model is that it overlooks the role of value. Value, indeed, has been regarded as a central construct in relationship marketing in general (Grönroos and Voima 2013) and for higher education student loyalty particularly (Alves 2011). To fill this void, we incorporated subjective task value from the expectancy-value model of achievement motivation (Eccles 1987) to the expectation disconfirmation model to achieve our research goals.

Fig. 1 The conceptual framework

Subjective Task Value

Value is an important component of relationship marketing (Grönroos and Voima 2013). Along with the increase of value added to the service, suppliers aim to raise satisfaction among their customers and subsequently obtain customer loyalty. For higher education, learning is the main value of the co-creation process, rather than teaching. Within this, lecturers and students within the service-scape (i.e., the library, classroom, learning management system etc.) use their resources to participate in the co-creation of learning (Edvardsson et al. 2011). Therefore, a value is a factor that should not be neglected when higher education is considered a service. There are different ways to define the concept of value. For instance, Jones et al. (2006) divided value into two dimensions, i.e., utilitarian value and hedonic value. Within the sector of education, there is a streamline of literature that regards value from the perspective of the expectancy-value model of achievement motivation (e.g., Chiu and Wang 2008). Thus, regarding the expectancy-value model of achievement motivation, Chiu and Wang (2008) stated, “individuals’ performance, persistence, and choice are directly predicted by their expectancies of success on the tasks and the subjective task value that represents success” (p. 195).

In this study, we use the same conceptualization of value to predict the intention of international students. Specifically, we follow Battle and Wigfield (2003) to examine three components of value from the expectancy-value model of achievement motivation, including: attainment value (‘importance of doing well on a given task’), utility value (‘how task completion facilitates future goals’) and intrinsic value (‘the enjoyment one gains from doing the task’) (p. 58). In the international higher education, attainment value may refer to the actual knowledge, skill or experience that one obtains after completing his or her degree overseas. Utility value may refer to the extent to which international institutions may help its holder to get

promoted, to get a higher salary or to find a good job. Intrinsic value may imply the enjoyment of study and life on the campus as well as in the host country.

The Conceptual Framework and Hypothesis Development

The conceptual framework guiding this study is presented in Fig. 1. First, the loyalty, which is conceptualized from an attitudinal perspective (Hennig-Thurau et al. 2001), is the dependent variable. Satisfaction and disconfirmation are anticipated as direct and indirect determinants, respectively (Oliver 1980). Meanwhile, we foresee that three subcomponents of value (attainment, utility, and intrinsic value) would have direct influences on disconfirmation and satisfaction (Ha and Janda 2008) as well as loyalty (Parasuraman and Grewal 2000). Specifically,

H1 Disconfirmation has a positive impact on Satisfaction.

H2 Satisfaction has a positive impact on Loyalty.

H3 Attainment Value has a positive impact on Disconfirmation.

H4 Utility Value has a positive impact on Disconfirmation.

H5 Intrinsic Value has a positive impact on Disconfirmation.

H6 Attainment Value has a positive impact on Satisfaction.

H7 Utility Value has a positive impact on Satisfaction.

H8 Intrinsic Value has a positive impact on Satisfaction.

H9 Attainment Value has a positive impact on Loyalty.

H10 Utility Value has a positive impact on Loyalty.

H11 Intrinsic Value has a positive impact on Loyalty.

Research Method

Questionnaire and Measurement

The survey questionnaire is composed of two sections: the first section collects demographic information; and the second measures items associated with the hypotheses. All questionnaire items employed in this study are from well-established measurements with necessary adjustments to fit the context of international higher education (see Table 3).

Pilot Test

For face validity purpose, two scholars were invited to revise the questionnaires. From these scholars' readings, further adjustments of the terminology were made.

Participants

The conceptual framework proposed in this study was assessed in the context of international higher education. Our selected sample is Vietnamese overseas students. In 2016, Vietnam had around 130,000 students across the globe (Phuong 2016), a 16.5% increase over 2012. According to Choudaha and Kono (2012), Vietnam is one of the countries with the highest growth in number of overseas students. For many destination countries, Vietnam is regarded among the most important sources of international students. For example, Vietnamese students population is the sixth among other sending countries to the United States in 2015 (Ashwill 2016). The corresponding figures are the fifth in Australia in 2018 (VNA 2018), and the third in Taiwan ROC in 2016 (Ministry of Education 2017), respectively. Particularly, for Australia, maintaining international students from other countries such as Vietnam is a strategic end in order to avoid the situation of overdependence on Chinese students (Bolton 2018).

Traditionally, Vietnamese students go abroad with scholarships funded by the host country's governments or the Vietnamese government (Pham and Lai 2016). However, recently, more and more families are able to pay for children seeking foreign diplomas abroad (Trines 2017).

Data Collection

An online survey was selected to obtain data. Due to the proliferation of the Internet, online survey has been increasingly employed by researchers (Bhattacharjee 2001). Data collection was undertaken during the five months from 12/2016 to 04/2017. A solicitation message

was sent through Facebook to 2000 people randomly selected from member lists of two Facebook-based groups of Vietnamese overseas students in different countries. With 2000 people, we initially expected that we would have at least 10% (equal to 200) returning their answers (Fryrear 2015). According to Hoogland and Boomsma (1998), 200 is minimum sample size for study using structural equation model (SEM).

The sampling procedure yielded a total of 461 responses out of the 2000 message invitations sent, equivalent to a response rate of 23.05%, which is higher than our prior expectation. Among these 461 responses, 51 were eliminated due to incomplete answers. The sample covers students studying in 15 countries across the world (see respondents' profile in Table 1).

Results

Measurement Validation

The confirmatory factor analysis (CFA) was employed, using SAS 9.3, to verify the measurements. All results of multiple fit indices obtained from CFA satisfied the rule of thumb. Table 2 shows the details of our multiple fit indices.

To address the issue of convergent validity, we examined the items' factor loadings, composite reliability (CR), and average variance extracted (AVE). As indicated in Tables 3 and 4, all CRs and AVEs are above their correspondent thresholds: 0.7 and 0.5, respectively; all factor loadings of the questionnaire items, except for LOY1 and SAT3, are above 0.7 and significant with 0.05 level of significance in the *t*-test.

Finally, we address the issue of discriminant validity by comparing AVE scores and the square of the estimated correlation coefficients among the latent variables. As the results show that all AVE scores are higher than the squared correlation coefficients, the scale of our study has followed the recommended guideline for the discriminant validity.

SEM and Hypothesis Testing

Figure 2 and Table 5 show the results of the SEM. In general, all exogenous constructs are explainable through the endogenous constructs selected in our conceptual model. Specifically, 40.58% of the variance of loyalty is predicted in this model. In parallel, 42.60% and 20.39% of the variance of satisfaction and disconfirmation are explained in this model.

Regarding path analyses, six hypotheses in this study are supported by our empirical analysis of SEM; nonetheless, the other five are not. In particular, Disconfirmation has a

Table 1 Profile of respondents

Characteristics	Respondents	
	Frequency (n = 410)	%
Gender		
Male	177	43
Female	233	57
Age		
Under 20	18	4
From 20 to 25	146	36
From 25 to 30	146	36
From 30 to 35	69	17
From 35 to 40	23	6
Over 40	8	2
Current host country		
Major English-speaking countries (Australia, Canada, New Zealand, UK, US)	208	50.7
Other countries	202	49.3
Current study program		
Bachelor's	81	20
Master's	199	49
Doctorate	115	28
Others	15	4
Major		
Science, technology, engineering, and math	111	27
Economic, business, management, education, pedagogy, foreign language, linguistic, social science, and humanities	271	66
Others	28	7
Time living in the current host country		
Less than 6 months	63	15
From 6 to 12 months	66	16
From 12 to 24 months	109	27
More than 24 months	172	42
The language of instruction in the current study program		
English	372	91
Others	38	9

direct impact on Satisfaction ($\beta = 0.52, t = 10.93$). Subsequently, Satisfaction influences directly on Loyalty ($\beta = 0.33, t = 6.44$). Therefore, Hypotheses 1 and 2 are supported.

Regarding the role of Value, there is a considerable variation concerning influence from three components of Value (Attainment, Utility, and Intrinsic) on Disconfirmation, Satisfaction, and Loyalty. Specifically, all three paths starting from three components of Value and ending at Satisfaction showed insignificant results: Attainment Value–Satisfaction ($\beta = 0.02, t = 0.31$); Utility Value–Satisfaction ($\beta = 0.13, t = 1.65$); and Intrinsic Value–

Table 2 Results of multiple fit indices

Index	Result	Acceptable level
Absolute index		
χ^2	180.96	–
Degree of freedom	104	–
χ^2 /degree of freedom	1.74	< 5
RMSR	0.05	< 0.08
SRMSR	0.03	–
GFI	0.95	> 0.9
Parsimony index		
AGFI	0.92	> 0.8
Parsimonious GFI	0.73	> 0.5
RMSEA	0.04	< 0.08
ECVI estimate	0.69	As small as possible
Akaike information criterion	278.97	As small as possible
Bozdogan CAIC	524.76	As small as possible
Schwarz bayesian criterion	475.76	As small as possible
McDonald centrality	0.91	–
Incremental index		
Bentler comparative fit index	0.98	–
Bentler–Bonett NFI	0.96	–
Bentler–Bonett non-normed index	0.98	–
Bollen normed index rho1	0.94	–
Bollen non-normed index delta2	0.98	–
James et al. Parsimonious NFI	0.73	> 0.5

Satisfaction ($\beta = 0.09, t = 1.49$). Thus, Hypotheses 6, 7, and 8 are not supported. Both relation paths: Utility Value–Disconfirmation ($\beta = 0.10, t = 1.26$) and Utility Value–Loyalty ($\beta = -0.03, t = -0.37$) are also found insignificant. Given these results, Hypotheses 4 and 10 are likewise not supported.

The above findings show that Utility Value does not have impact on Disconfirmation, Satisfaction as well as Loyalty.

The impacts of Attainment Value and Intrinsic Value on Disconfirmation and Loyalty are similar. In particular, all the paths starting from Attainment Value and Intrinsic Value and ending at Disconfirmation and Loyalty are found significant (i.e., Attainment Value–Disconfirmation: $\beta = 0.18, t = 2.10$; Attainment Value–Loyalty: $\beta = 0.13, t = 1.80$; Intrinsic Value–Disconfirmation: $\beta = 0.23, t = 3.49$; Intrinsic Value–Loyalty: $\beta = 0.34, t = 5.55$). Therefore, Hypotheses 3, 5, 9, and 11 are supported.

Total Effects of Direct and Indirect Antecedents of International Student Loyalty

In Table 6, we assess the total impacts given by the total effect from five antecedents to Loyalty. Among all, Utility

Table 3 Results of factor loading for CFA

Items	Factor loading	<i>t</i> statistic
Attainment value: Likert scale 7 (Chiu and Wang 2008)		
ATV1: You think staying in the current host country for further study make you a more knowledgeable person	0.84	47.63***
ATV2: You think staying in the current host country for further study offers an opportunity for fulfilling achievement	0.90	64.69***
ATV3: You think staying in the current host country for further study confirms your competence	0.83	45.68***
Utility Value: Likert scale 7 (Chiu and Wang 2008)		
UTV1: You think what you obtain by staying in the current host country for further study is useful for your promotion	0.82	34.72***
UTV2: You think what you obtain by staying in the current host country for further study is useful for getting salary raise	0.77	28.85***
UTV3: You think what you obtain by staying in the current host country for further study is useful for you to get a job	0.72	24.79***
Intrinsic Value: Likert scale 7 (Chiu and Wang 2008)		
INV1: You think staying in the current host country for further study is interesting	0.89	59.36***
INV2: You think staying in the current host country for further study is enjoyable	0.90	62.75***
INV3: You think staying in the current host country for further study is not fun (reversed code)	0.76	32.85***
Disconfirmation: Likert scale 7 (Liao et al. 2007)		
DIS1: Your experience with studying at the current university and living in the current host country is worse than what you expected before (reverse code)	0.88	37.37***
DIS2: The education provided by your current university and the living conditions and environments provided by your current host country are better than what you expected before	0.88	37.50***
Satisfaction: Likert scale 7 (Liao et al. 2007)		
Overall, how do you feel about the service provided to you by your current university and life in the current host country?		
SAT1: Satisfied	0.85	38.79***
SAT2: Pleased	0.83	36.87***
SAT3: Contented	0.67	21.50***
Loyalty: Likert scale 5 (Hennig-Thurau et al. 2001)		
LOY1: You will say positive things about universities in the current host country to other people	0.69	23.21***
LOY2: You will recommend the current host country to someone seeking your advice for education service	0.89	46.14***
LOY3: You will encourage your friends/relatives to study in the current host country	0.79	33.41***

*** $p < 0.001$

Table 4 Convergent and discriminant validity

Construct	CR	AVE	Factor correlation						
			ATV	UTV	INV	DIS	SAT	LOY	
ATV	0.89	0.73	1						
UTV	0.81	0.59	0.69	1					
INV	0.89	0.73	0.60	0.56	1				
DIS	0.87	0.77	0.39	0.37	0.41	1			
SAT	0.83	0.62	0.38	0.39	0.39	0.62	1		
LOY	0.84	0.63	0.45	0.39	0.54	0.52	0.49	1	

Value was proven to not affect Loyalty as well as Disconfirmation and Satisfaction. Therefore, we exclude Utility Value from this estimation.

Overall, as represented in Table 6, Intrinsic Value is the most important determinant in formulating Loyalty (total

effect of 0.38), followed by Satisfaction (0.33), Disconfirmation (0.17), and Attainment Value (0.16).

Discussion and Conclusion

Student loyalty has been considered an important issue in educational management field. Contrary to abundance of prior studies on domestic students, there have been few studies of their international counterparts despite their benefits bringing to higher education providers. This study fills this gap by examining the antecedents of loyalty of 410 Vietnamese oversea students. Specifically, this study incorporates the components from two dominant models in behavioral sciences: disconfirmation-expectation model and expectancy-value model of achievement motivation, to explain international student loyalty.

Table 5 Results of SEM

	β coefficient	t value	Hypothesis
Dependent variable: disconfirmation			
Attainment value	0.18	2.10**	H3 Supported
Utility value	0.10	1.26	H4 Rejected
Intrinsic value	0.23	3.49***	H5 Supported
R^2 : 20.39% of the variance of Disconfirmation are explained by Attainment Value and Intrinsic Value			
Dependent variable: satisfaction			
Attainment value	0.02	0.31	H6 Rejected
Utility value	0.13	1.65	H7 Rejected
Intrinsic value	0.09	1.49	H8 Rejected
Disconfirmation	0.52	10.93***	H1 Supported
R^2 : 42.60% of the variance of Satisfaction are explained by Disconfirmation			
Dependent variable: loyalty			
Attainment value	0.13	1.80*	H9 Supported
Utility value	-0.03	-0.37	H10 Rejected
Intrinsic value	0.34	5.55***	H11 Supported
Satisfaction	0.33	6.44***	H2 Supported
R^2 : 40.58% of the variance of Loyalty are explained by Attainment Value, Intrinsic Value, and Satisfaction			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

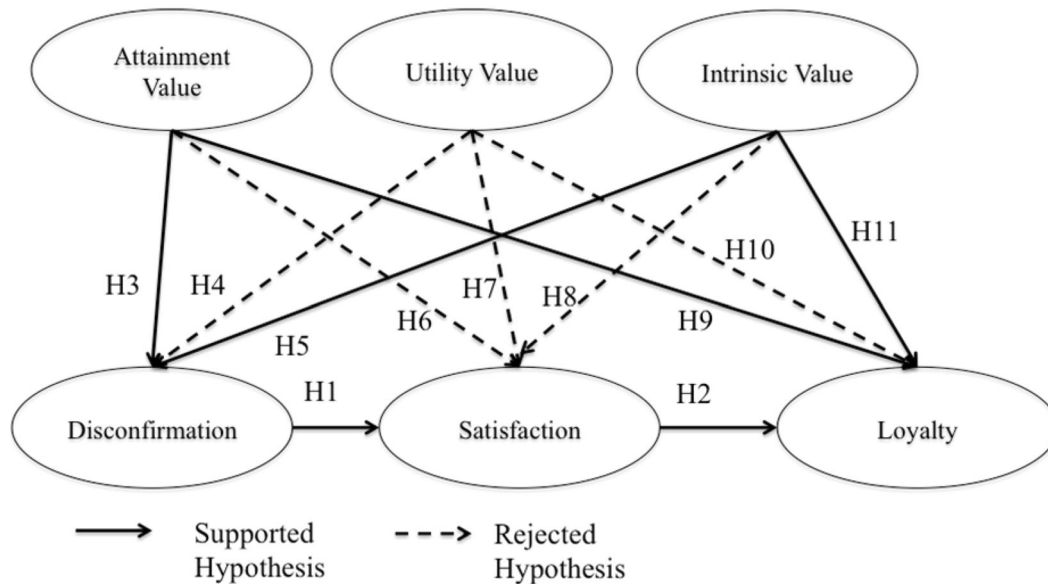


Fig. 2 A standardized solution of SEM

Theoretical Implications

Our empirical data confirm a full suitability of employing the disconfirmation-expectation model. This finding is in line with other previous studies within the context of higher education (e.g., Athiyaman 1997; Pham and Lai 2016). However, as this study revealed that Satisfaction is not the most influencing determinant of Loyalty, it reconfirms the

assertion of previous authors (e.g., Kumar et al. 2013) that Satisfaction is not necessarily the best predictor of (affective) loyalty.

This study justifies that disconfirmation-expectation model is not sufficient to explain Loyalty. Furthermore, Value should be regarded as a key driver of Loyalty. This finding is in line with some previous studies in different settings, e.g., tourism (Pandža Bajcs 2015) or financial

Table 6 Direct, indirect, and total effects of value, disconfirmation, and satisfaction on loyalty

Antecedent	Direct effect route and magnitude	Indirect effect route and magnitude	Total effect
Attainment value	Attainment value–loyalty 0.13	Attainment value–disconfirmation–satisfaction–loyalty $0.18 \times 0.52 \times 0.33 = 0.03$	0.16
Intrinsic value	Intrinsic value–loyalty 0.34	Intrinsic value–disconfirmation–satisfaction–loyalty $0.23 \times 0.52 \times 0.33 = 0.04$	0.38
Disconfirmation	/	Disconfirmation–satisfaction–loyalty $0.52 \times 0.33 = 0.17$	0.17
Satisfaction	Satisfaction–loyalty 0.33	/	0.33

/ does mean that there is not indirect route between two constructs

service (Floh et al. 2014). However, from the lens of expectancy-value model (Wigfield and Eccles 1989), which regards Value as subjective task value and scrutinizes the concept of Value as Attainment Value, Utility Value, and Intrinsic Value, this study revealed that only two Attainment Value and Intrinsic Value having impact on Loyalty; while Utility Value having no significant impact (neither direct nor indirect) on Loyalty. Regarding the relative weights of impact on Loyalty, Intrinsic Value has demonstrated to have a higher impact than Attainment Value.

The above results are partly similar to and partly different from those of Chiu and Wang's (2008) study, which also utilized subjective task value to investigate the behavior of local Taiwanese students. Both these studies showed that Intrinsic Value had the most influencing effect on Loyalty, followed by Attainment Value.

Nevertheless, Chiu and Wang unveiled a significant effect of Utility Value on Loyalty, which is different from the insignificant relation found in our study. Obtaining a formal degree and thus having a higher social status, which is part of Utility Value, seems to be the primary purpose of higher education for most local Taiwanese people in general. This assertion might be found ubiquitously in academic literature (e.g., Phan 2016) as well as anecdotal practices (e.g., Pham 2013). Such credential mentality might lead to an assumption that Utility Value would play a critical role in constructing higher loyalty among students toward the incumbent higher education providers in general, but not among Vietnamese oversea students in our study. A plausible explanation for this contradictory result may be attributed to our sample, which is mostly at the graduate level of education and supposedly tend to appreciate Attainment Value (e.g., actual knowledge and skills) rather than Utility Value (e.g., degree or certificate). Indeed, students at higher level seem to focus more on the original component (i.e., actual knowledge and skills or attainment value) rather than superficial component (i.e., degree, higher social status, or utility value).

Practical Implications

Our findings have implications for practitioners. First, as this study verified the robustness of the disconfirmation-expectation model (Oliver 1980), we suggest that higher education institutions should pay more attention to the difference between *ex ante* expectation and actual *ex post* performance of their higher education service (which constitutes disconfirmation) as well as satisfaction among their incumbent international students. Higher education institutions should evaluate these factors frequently to obtain updated feedback from international students. Thus, responsive adjustment in terms of academic and non-academic matters might be implemented accordingly.

Second, this study confirmed partly the appropriateness of subjective task value (Wigfield and Eccles 1989) as a predictor of Loyalty. Specifically, Attainment Value and Intrinsic Value have been demonstrated as both direct and indirect antecedents of Loyalty, while Utility has been unveiled having neither direct nor indirect one. Given this result, it is suggested that higher education providers should place value-adding strategies in terms of Attainment and Intrinsic dimensions but not Utility dimension at the center of international student service activities. For instance, as international students often encounter language challenges (Sawir 2005), universities may provide proof-reading service to help them in their academic studies, and thus, add value for them concerning the attainment dimension. Other possible measures aiming to enhance the attainment value of international students are (i) implementation of cultural adaptation support program, given that international students often face cultural difficulties (Zhou et al. 2008); or (ii) adjusting the curriculum to fit with demands of international students (Haigh 2002).

In the same vein, enhancing Intrinsic Value should also be considered as a strategic measure for higher education institutions. For instance, higher education institutions, which want to retain international students, might invest more resources in extra-class activities like sports facilities, clubs, or entertaining programs within the campuses.

However, during period studying abroad, it is apparent that one does not only live within the borders of his/her campus but also in the host country as sojourner (Andrade 2006). Thus, the Utility Value perceived by international students should stem from the coordination of two parties: the (national or provincial) government of the host country and higher education institutions as well. For instance, program *Ryugakusei Okoshiyasu Pass* or “welcome, international student pass” providing free entry to several cultural and heritage places at Kyoto (Japan) since July 2017 is a good example showing how provincial government coordinate with universities to enhance sojourning experience of international students (Study Kyoto 2017), thus, to enhance Intrinsic Value.

Another implication might be withdrawn for less prestigious higher education providers with the finding that Intrinsic Value but not Attainment Value is the most important driver of Loyalty. Given that less prestigious higher education providers are assumed to have a lower capacity to bring Attainment Value might compensate this disadvantage through strategy to bring Intrinsic Value to their international students.

Limitations and Future Research

Like many other studies, there might find a number of caveats for further amelioration in this study. First, the slight impact of Utility Value in this conceptual model might be due to the exclusion of some important traditional drivers of loyalty, such as an image. The image has been demonstrated as having strong relationships with value and satisfaction in exerting on loyalty in different settings (e.g., Back and Lee 2009). In the light of this argument, future researchers might verify the role of Utility Value through adding the image into their model.

Second, another limitation is that only the affective dimension of loyalty is considered in this study. The behavioral dimension of loyalty, the continued intention to undertake further study, is overlooked in this study. Prospective researchers may include behavioral loyalty of international students in their studies, or conceptualize student loyalty as a composite approach, i.e., incorporating both behavioral and attitudinal loyalty into one single construct.

Third, the uniqueness of participants’ cultural/national identity has not been studied in depth enough. The future attempt on this topic might overcome this limitation by including participants from different countries and cultural backgrounds and try to compare the different mechanisms leading to loyalty among different backgrounds.

Fourth, since this study focuses on the role of three components of subjective task value, it overlooks the

multidimensions of two other antecedents of loyalty, i.e., disconfirmation and satisfaction. Future research, which also takes into account the role of disconfirmation and satisfaction, might divide these two variables into multiple components such as disconfirmation/satisfaction of university service and life in the host country.

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