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Abstract: It is critical to investigate the major factors that influence the perceived value and satisfaction of international students in Malaysia, as the country has seen a decrease in international students since 2017 and strives to become an international education hub. This research aims to: (1) ascertain the level of satisfaction experienced by international students attending private universities (PrUs) in the Klang Valley; (2) identify factors and present a model that measures their influence on the perceived value and satisfaction of international students; and (3) propose policy recommendations to key stakeholders. An empirical study was conducted using a quantitative research methodology via physical survey using structured questionnaires. A total of 502 surveys from international students were collected from twelve private universities in the Klang Valley. The partial least

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Ethical Conventions: all the necessary protocols of research ethics were observed. More information is available at the end of this paper under the same heading (**Ethical Conventions**).

squares structural equation modelling technique was employed to assess the measurement and structural model in validating the study model. Based on the empirical findings, the external environment, image, academic and non-academic constructs positively influence perceived value, which affects satisfaction. Results also confirm that the post-behavioural intentions of satisfied international students are word-of-mouth recommendations and loyalty. The results provided new perspectives on attracting and retaining international students to study in Malaysia. Theoretical, policy and practical implications are discussed.

Keywords: International education; international students; student satisfaction; perceived value; post behavioural intention; private universities.

I. Introduction

Kuala Lumpur, Malaysia's capital city, is ranked 28th globally and sixth in Asia's most affordable study destination in the recent QS Best Student Cities Ranking 2023.[1] Besides affordability, the criteria for this ranking include university rankings, student mix, desirability, employer activity, and student voice. The indicators measuring these six criteria are comprehensive, such as the number and performance of universities ranked in the QS World University Rankings in the city, the ratio of population and students in the city, the number of international students enrolled in the city, the safety and pollution level, the number of respondents who wish to study in the city, youth employment, employers' perceptions of graduates produced by universities in the city, tuition fees, costs of living, and ratings on the city's friendliness, sustainability, diversity, and preference of students to continue living in the city after graduation. Malaysia's aspiration to become an international education hub has made great strides as the country moved from the 12th to the 9th in 2014 in a list of top study destinations according to UNESCO's International Student Mobility Survey.[2] The country has transitioned from a sending to a receiving country, as the number of inbound international students tripled from 47,928 (2007)[3] to 136,293 (2017).[4] Several policy documents highlight Malaysia's aspirations: Ninth and

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[1] Sandhya Menan, "KL, Asia's Most Affordable Study Hub," The Star, 2022, https://www.thestar.com.my/news/nation/2022/06/30/kl-asias-most-affordable-study-hub.

[2] ICEF Monitor, "Malaysia Competing for a Greater Share of International Students," ICEF Monitor, 2016, http://monitor.icef.com/2016/08/malaysia-competing-greater-share-inernational-students/.

[3] Ministry of Higher Education Malaysia, *Higher Education Indicator 2007* (Putrajaya: Ministry of Higher Education Malaysia, 2008), https://www.mohe.gov.my/muat-turun/statistik

[4] Ministry of Higher Education Malaysia, *Higher Education Statistics 2017* (Putrajaya: Ministry of Higher Education Malaysia, 2018), https://www.mohe.gov.my/muat-turun/statistik

Eleventh Malaysia Plan (2016-2020),[5,6] National Higher Education Strategic Plan,[7] and Malaysia Education Blueprint for Higher Education 2015-2025.[8] The Ministry of Education has established dedicated departments such as Education Malaysia and Education Malaysia Global Services (EMGS) to promote and manage international students.

Countries hosting international students gain economic, social, cultural, political, and academic benefits.[9] Hence, many countries aspire to be education hubs by expanding their higher education sectors. China's higher education sector attracted 492,185 international students in 2018, and it is now the second-largest host country after the US.[10] Japan has declared its target to host 300,000 international students by 2027.[11] South Korea hopes to enrol 200,000 international students by 2023;[12] in 2019, about 130,000 international students studied in Taiwan.[13]

The Middle East has three education hubs: Dubai International Academic City, Qatar Education City, and Bahrain Higher Education City. Newer education hubs, such as Botswana Education Hub and Medine Education Village in Mauritius,[14] have also emerged in Africa. In ASEAN alone, there

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[5] Economic Planning Unit, *Ninth Malaysia Plan 2006-2010* (Putrajaya: Prime Minister Department Malaysia, 2006), https://www.ekonomi.gov.my/sites/default/files/2020-03/RMK9.pdf

[6] Economic Planning Unit, *Eleventh Malaysia Plan 2016-2020* (Putrajaya: Prime Minister Department Malaysia, 2015), https://www.ekonomi.gov.my/sites/default/files/2020-02/Buku%20RMKe-11.pdf

[7] Ministry of Higher Education Malaysia, *National Higher Education Stategic Plan : Laying The Foundation Beyond 2020* (Putrajaya: Ministry of Higher Education Malaysia, 2007).

[8] Ministry of Education Malaysia, *Malaysia Education Blueprint 2015-2025 : Higher Education* (Putrajaya: Ministry of Education Malaysia, 2015), https://doi.org/10.5923/j.ijis.20120206.05.

[9] Jane Knight, *Higher Education in Turmoil* (Rotterdam: Sense Publishers, 2008).

[10] Yuzhuo Cai, "China's 2020 Target: Reshaping Global Mobility Flows," European Association for International Education, 2020, https://www.eaie.org/blog/china-2020-target-reshaping-global-mobility-flows.html.

[11] Magdalena Osumi, "Japan Aims to up Number of International Students to 300,000 by 2027," The Japan Times, 2022, https://www.japantimes.co.jp/news/2022/06/23/national/international-students-increase-plan/.

[12] ICEF Monitor, "South Korea: Record Growth in International Student Enrolment," 2018, https://monitor.icef.com/2018/02/south-korea-record-growth-international-student-enrolment/.

[13] Taiwan Ministry of Education, "International Students Come Together to Taiwan, Where the One-Hundred Thirty Thousand Overseas Student Mark Has Been Passed," 2021, https://english.moe.gov.tw/cp-117-25416-d8868-1.html.

[14] WES, "Established and Emerging Hubs for International Education in Africa and the Middle East," WES Research and Advisory Services, 2015, https://wenr.wes.org/2015/06/established-emerging-hubs-international-education-africa-middle-east.

are several: Singapore has twelve international branch campuses;[15] Thailand and Indonesia have invited foreign universities to open international branch campuses and conduct transnational education programmes.[16],[17]

With increasing competition, can Malaysia sustain its position in attracting international students? International enrollment has steadily increased from 27,872 in 2002 to 136,710 in 2017, marking a 390 percent increase.[18],[19] Before the COVID-19 pandemic, there was a gradual fall in enrolment, with 131,514 and 93,569 international students enrolling in 2018[20] and 2019,[21] respectively, reflecting a 29 percent decrease. It is, therefore, vital to uncover factors influencing international students' perceived value and satisfaction. In addition, the targets set by the Ministry of Higher Education are 100,000, 150,000, and 200,000 by 2010, 2015, and 2020, respectively, were not achieved.[22] The target to attract 250,000 by 2025 seems ambitious, given there were only 87,235 in 2021.[23] The recent policy document for private higher education in Malaysia indicated one of the challenges faced by these providers is the declining number of international students.[24] Hence, assessing the level of satisfaction of international students and uncovering factors influencing international students' perceived value and satisfaction helps to understand the decrease in international student enrolment. In addition, the findings will greatly assist higher education

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[15] Angela Yung Chi; Hou et al., "A Comparative Study of International Branch Campuses in Malaysia, Singapore, China, and South Korea: Regulation, Governance, and Quality Assurance," *Asia Pacific Education Review* 19, no. 4 (2018): 543–55, https://doi.org/10.1007/s12564-018-9550-9.

[16] The Nation, "Academics Support Plan to Allow Foreign Universities in SEZs," The Nation, 2017, https://www.nationthailand.com/business/30316109.

[17] THE World University Rankings, "Western Universities Mull Indonesian Branch Campuses," THE World University Rankings, January 28, 2019, https://www.timeshighereducation.com/news/western-universities-mull-indonesian-branch-campuses.

[18] Ministry of Higher Education Malaysia, *Higher Education Indicator 2007*.

[19] Ministry of Higher Education Malaysia, *Higher Education Statistics 2017*.

[20] Ministry of Education Malaysia, *Higher Education Statistics 2018* (Putrajaya: Ministry of Education Malaysia, 2019), https://www.mohe.gov.my/muat-turun/statistik.

[21] Ministry of Higher Education Malaysia, *Higher Education Statistics 2019* (Putrajaya: Ministry of Higher Education Malaysia, 2020), https://www.mohe.gov.my/muat-turun/statistik.

[22] Ministry of Higher Education Malaysia, *National Higher Education Stategic Plan : Laying The Foundation Beyond 2020*.

[23] Ministry of Higher Education Malaysia, *Higher Education Statistics 2021* (Putrajaya: Ministry of Higher Education Malaysia, 2022), https://www.mohe.gov.my/muat-turun/statistik.

[24] Ministry of Education Malaysia, *Way Forward for Private Higher Education Institutions: Education As an Industry 2020-2025*, vol. 1 (Putrajaya: Ministry of Education Malaysia, 2020).

policymakers and private universities (PrUs) in strategizing their marketing efforts to attract and retain international students in Malaysia. This will ultimately help improve future enrolment and growth, enabling the country to achieve its aspirations.

Despite hosting international students for nearly two decades, there are only a few studies on international student satisfaction in Malaysia. The investigation of the relationship and the concept of perceived value to satisfaction in higher education is equally scant.[25,26,27] Past studies on international student satisfaction used service quality as an antecedent to satisfaction without considering the contribution of perceived value.[28,29] Interestingly, the study on image construct still does not confirm whether it is the antecedent[30] or outcome[31] of satisfaction. Investigating the antecedents of Word-of-Mouth (WoM) and loyalty is still unclear. Satisfaction,[32] perceived value and service quality,[33] and loyalty[34] affect

[25] Kumudini Sriyalatha Mallika Appuhamilage and Hiroshi Torii, "The Impact of Loyalty on the Student Satisfaction in Higher Education," *Higher Education Evaluation and Development* 13, no. 2 (2019): 82–96, https://doi.org/10.1108/heed-01-2019-0003.

[26] Helena Alves, "The Measurement of Perceived Value in Higher Education: A Unidimensional Approach," *Service Industries Journal* 31, no. 12 (2011): 1943–60, https://doi.org/10.1080/02642069.2011.550042.

[27] Ling; Lin et al., "Let's Make It Better: An Updated Model Interpreting International Student Satisfaction in China Based on PLS-SEM Approach," *PLoS ONE* 15, no. 7 (2020): 1–13, https://doi.org/10.1371/journal.pone.0233546.

[28] Faizan et al., "Does Higher Education Service Quality Effect Student Satisfaction, Image and Loyalty?: A Study of International Students in Malaysian Public Universities," *Quality Assurance in Education* 24, no. 1 (2016): 70–94, https://doi.org/http://dx.doi.org/10.1108/QAE-02-2014-0008.

[29] Milad Kalantari Shahijan, Sajad Rezaei, and Vinitha Padmanabhan Guptan, "Marketing Public and Private Higher Education Institutions: A Total Experiential Model of International Student's Satisfaction, Performance and Continues Intention," *International Review on Public and Nonprofit Marketing* 15, no. 2 (2018): 205–34, https://doi.org/10.1007/s12208-018-0198-2.

[30] Shahijan, Rezaei, and Guptan.

[31] Faizan et al., "Does Higher Education Service Quality Effect Student Satisfaction, Image and Loyalty?: A Study of International Students in Malaysian Public Universities."

[32] Ali Gholipour Soleimani and Hannaneh Einolahzadeh, "The Influence of Service Quality on Revisit Intention: The Mediating Role of WOM and Satisfaction (Case Study: Guilan Travel Agencies)," *Cogent Social Sciences* 4, no. 1 (2018): 1–14, https://doi.org/10.1080/23311886.2018.1560651.

[33] Bushra K. Mahadin and Mamoun N. Akroush, "A Study of Factors Affecting Word of Mouth (WOM) towards Islamic Banking (IB) in Jordan," *International Journal of Emerging Markets* 14, no. 4 (2019): 639–67, https://doi.org/10.1108/IJOEM-10-2017-0414.

[34] Mohsin Abdur Rehman et al., "The Influence of Course Experience, Satisfaction, and Loyalty on Students' Word-of-Mouth and Re-Enrolment Intentions," *Journal of Marketing for Higher Education* 32, no. 1 (2020): 259-277, https://doi.org/10.1080/08841241.2020.1852469.

WoM. Antecedents of loyalty include satisfaction,[35] service quality,[36] and image.[37] The services received by international students tested in the past examined only academic and non-academic constructs.[38,39,40] The academic construct includes course content, lecturer, teaching delivery, assessment, library, laboratory facilities, and others directly related to teaching and learning. While non-academic comprise student administrative services, financial assistance, accommodation, food, sports, clubs, and recreation facilities. The external living environment outside of campus was not examined. This study expands the current literature by providing a theoretical framework and empirical evidence for a more exhaustive determinant of perceived value and the interrelationship of constructs between perceived value, satisfaction, post-behavioural intention, loyalty, and WoM in a single model.

This research aims to: (1) ascertain the level of satisfaction experienced by international students attending private universities (PrUs) in the Klang Valley; (2) identify factors and present a model that measures their influence on the perceived value and satisfaction of international students; and (3) propose policy recommendations to key stakeholders.

II. Literature review and theoretical framework

Consumer and marketing theories were adopted for the study as international students are viewed as consumers of higher education

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[35] Appalayya Meesala and Justin Paul, "Service Quality, Consumer Satisfaction and Loyalty in Hospitals: Thinking for the Future," *Journal of Retailing and Consumer Services* 40, no. July 2016 (2018): 261–69, https://doi.org/10.1016/j.jretconser.2016.10.011.

[36] Taqdees Fatima, Shahab Alam Malik, and Asma Shabbir, "Hospital Healthcare Service Quality, Patient Satisfaction and Loyalty: An Investigation in Context of Private Healthcare Systems," *International Journal of Quality and Reliability Management* 35, no. 6 (2018): 1195–1214, https://doi.org/10.1108/IJQRM-02-2017-0031.

[37] Elitza Iordanova, "Tourism Destination Image as an Antecedent of Destination Loyalty : A Case of Linz, Austria," *European Journal of Tourism Research*, 2017, 214–32.

[38] Faizan et al., "Does Higher Education Service Quality Effect Student Satisfaction, Image and Loyalty?: A Study of International Students in Malaysian Public Universities."

[39] Mohammed Hasan; Lujain and Masri; Ridzuan, "Factors Influence the Satisfaction of International Students at Private Universities in Malaysia," *International Journal of Science and Research (IJSR) ISSN (Online Index Copernicus Value Impact Factor* 4, no. 8 (2015): 136–42.

[40] Seyama Sultana and Abdul Momen, "International Student Satisfaction and Loyalty: A Comparative Study of Malaysian and Australian Higher Learning Institutions," *Journal of Intercultural Management* 9, no. 1 (2017): 101–42, https://doi.org/10.1515/joim-2017-0005.

services.[41,42] The framework of this study was built on consumer satisfaction theory, satisfaction model,[43] equity theory, and the literature on international students' satisfaction.

II.1. Satisfaction

Customer satisfaction is a term used to describe customers' appraisal of the outcome of a purchase or service experience,[44] based on consumer satisfaction theory.[45] International students will evaluate their experience based on their entire duration of study and living experience. This includes receiving academic, non-academic services on campus, services received off-campus, expenses incurred, for example, tuition fees and other living costs. This study used the overall accumulative performance evaluation to measure satisfaction and not a transaction-specific satisfaction evaluation. This accumulated assessment or overall satisfaction evaluation is consistent with the European Customer Satisfaction Index (ECSI) adopted in this study.[46] There are debates on whether students should be treated as customers.[47] Due to the stiff competition in the higher education sector, the operation of universities has also evolved to be business-like, providing better services to attract students. While students pay fees, and they too demand a certain level of education quality.[48] Therefore, students can be treated as customers, and universities strive to satisfy their students by providing quality education.

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[41] Melodi Guilbault, "Students as Customers in Higher Education: Reframing the Debate," *Journal of Marketing for Higher Education* 26, no. 2 (2016): 132–42, https://doi.org/10.1080/08841241.2016.1245234.

[42] Riina Koris et al., "Student-Customer Orientation at a Higher Education Institution: The Perspective of Undergraduate Business Students," *Journal of Marketing for Higher Education* 25, no. 1 (2015): 29–44, https://doi.org/10.1080/08841241.2014.972486.

[43] Michael D. Johnson et al., "The Evolution and Future of National Customer Satisfaction Index Models," *Journal of Economic Psychology* 22, no. 2 (2001): 217–45, https://doi.org/10.1016/S0167-4870(01)00030-7.

[44] Claes Fornell, "A National Customer Satisfaction Barometer: The Swedish Experience," *Journal of Marketing* 56, no. 1 (1992): 6–21.

[45] Scott G. Dacko, *The Advanced Dictionary of Marketing : Putting Theory to Use* (New York: Oxford University Press, 2008).

[46] Enrico; Ciavolino and Jens J. Dahlgaard, "ECSI - Customer Satisfaction Modelling and Analysis: A Case Study," *Total Quality Management and Business Excellence* 18, no. 5 (2007): 545–54, https://doi.org/10.1080/14783360701240337.

[47] Guilbault, "Students as Customers in Higher Education: Reframing the Debate."

[48] Aye Mengistu Alemu and Jason Cordier, "Factors Influencing International Student Satisfaction in Korean Universities," *International Journal of Educational Development* 57, no. June (2017): 54–64, https://doi.org/10.1016/j.ijedudev.2017.08.006.

Satisfaction models are embedded in systems of cause-and-effect relationships. As a result, they become the focal point in a chain of relationships that extends from the antecedents to overall customer satisfaction,[49] as found in the Swedish Customer Satisfaction Barometer (SCSB),[50] American Customer Satisfaction Index (ACSI),[51] Norwegian Customer Satisfaction Barometer (NCSB)[52] and European Customer Satisfaction Index (ECSI).[53,54] These models use constructs that measure: first, the drivers of satisfaction, which comprise expectation, perceived quality (product and service), perceived value, and image; second, satisfaction; and third, the outcomes being customer complaints and loyalty. Different constructs are used in these models as they have evolved and improved over time.[55] This study used the adapted version of the ECSI tested by Brown and Mazzarol[56] and Alves and Raposo[57] in their study on student satisfaction in higher education. The WoM construct is included in this study due to the nature of educational services; for instance, when obtaining a degree, the chances of re-enrolling/repurchasing for another degree or Master's degree are lower. Hence, capturing the construct of loyalty alone is inadequate to reflect the outcome of satisfaction. This study examined perceived service quality, image, value, satisfaction, WoM, and loyalty constructs.

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[49] Claes Fornell et al., "The American Customer Satisfaction Index : Nature, Purpose and Findings," *Journal of Marketing* 60, no. 4 (1996): 7–18, https://doi.org/10.2307/1251898.

[50] Fornell, "A National Customer Satisfaction Barometer: The Swedish Experience."

[51] Fornell et al., "The American Customer Satisfaction Index : Nature, Purpose and Findings."

[52] Tor Wallin; Andreassen and Bodil; Lindestad, "Customer Loyalty and Complex Services: The Impact of Corporate Image on Quality, Customer Satisfaction and Loyalty for Customers with Varying Degrees of Service Expertise," *International Journal of Service Industry Management* 9, no. 1 (1998): 7–23, https://doi.org/https://doi.org/10.1108/09564239810199923.

[53] Jan A.; Eklöf and Anders H.; Westlund, "The Pan-European Customer Satisfaction Index Programme - Current Work and the Way Ahead," *Total Quality Management* 13, no. 8 (2002): 1099–1106, https://doi.org/10.1080/09544120200000005.

[54] Eklöf and Westlund.

[55] Johnson et al., "The Evolution and Future of National Customer Satisfaction Index Models."

[56] Robert M. Brown and Timothy William Mazzarol, "The Importance of Institutional Image to Student Satisfaction and Loyalty within Higher Education," *Higher Education* 58, no. 1 (2009): 81–95, https://doi.org/10.1007/s10734-008-9183-8.

[57] Helena Alves and Mário Raposo, "Conceptual Model of Student Satisfaction in Higher Education," *Total Quality Management and Business Excellence* 18, no. 5 (2007): 571–88, https://doi.org/10.1080/14783360601074315.

II.2. *Perceived value*

The assessment of customer satisfaction is based on their perceived value according to equity theory, where satisfaction is achieved when consumers perceive the ratio of their outcome to input as equitable.[58,59] Hence, perceived value is defined as the consumers' overall evaluation of what they receive in relation to what they pay for or value for money.[60,61] Value for money is achieved when less money and/or non-monetary costs are sacrificed against the quality of services received.[62]

Perceived value can be measured by multiple antecedents based on the functional value of the products or services[63,64] and tailored to industry type.[65,66] The antecedent of the perceived value of this study includes perceived service quality (academic and non-academic services and external environment) and image.

II.3. *Academic services, non-academic services, and external living environment*

Service quality refers to the 'what' and 'how' in service delivery. The 'what' refers to the services being delivered, and the 'how' refers to the

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[58] Ruth N.; Bolton and James H.; Drew, "A Multistage Model of Customers' Assessments of Service Quality and Value," *Journal of Consumer Research* 17, no. 4 (1991): 375–84.

[59] Gordon H.G. McDougall and Terrence Levesque, "Customer Satisfaction with Services: Putting Perceived Value into the Equation," *Journal of Services Marketing* 14, no. 5 (2000): 392–410, https://doi.org/10.1108/08876040010340937.

[60] Valarie A. Zeithaml, "Consumer Perceptions of Price, Quality and Value : A Means-End Model and Synthesis of Evidence," *Journal of Marketing* 52, no. 3 (1988): 2–22, https://doi.org/10.2307/1251446.

[61] Kai Kristensen, Anne Martensen, and Lars Gronholdt, "Customer Satisfaction Measurement at Post Denmark: Results of Application of the European Customer Satisfaction Index Methodology," *Total Quality Management* 11, no. 7 (2000): 1007–15, https://doi.org/10.1080/09544120050135533.

[62] Zeithaml, "Consumer Perceptions of Price, Quality and Value : A Means-End Model and Synthesis of Evidence."

[63] Parasuraman, Valarie A.; Zeithaml, and Leonard L. Berry, "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality," *Journal of Retailing* 64, no. 1 (1988): 5–6, https://doi.org/10.1016/S0148-2963(99)00084-3.

[64] Raquel Sánchez-Fernández and M. Ángeles Iniesta-Bonillo, "The Concept of Perceived Value: A Systematic Review of the Research," *Marketing Theory* 7, no. 4 (2007): 427–51, https://doi.org/10.1177/1470593107083165.

[65] Johnson et al., "The Evolution and Future of National Customer Satisfaction Index Models."

[66] Paul G. Patterson and Richard A. Spreng, *Modelling the Relationship between Perceived Value, Satisfaction and Repurchase Intentions in a Business-to-business, Services Context: An Empirical Examination*, International Journal of Service Industry Management, vol. 8, 1997, https://doi.org/10.1108/09564239710189835.

manner in which they are being delivered.[67,68] Perceived service quality for this study includes academic and non-academic services delivered by the university and services received off-campus. International students receive academic services from their universities, including course content, lecturer, teaching delivery, assessment, library, and laboratory facilities. While on campus, they consume non-academic services, including administrative services, financial assistance, accommodation, food, sports, clubs, and recreation facilities. The international students' experience may not be confined to campus but instead part of a community outside campus. They use services like transportation, healthcare, community, safety, employment, and others. These three service constructs are consistent with the extant research[69,70,71] Previous studies on international students' satisfaction tested the direct relationship between service quality and satisfaction without considering perceived value.[72,73,74,75,76,77] Empirical studies by Alves and

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[67] Christian; Grönroos, "A Service Quality Model and Its Marketing Implications," *European Journal of Marketing* 18, no. 4 (1984): 36–44, https://doi.org/10.1108/EUM0000000004784.

[68] McDougall and Levesque, "Customer Satisfaction with Services: Putting Perceived Value into the Equation."

[69] Shahira El Alfy and Abdulai Abukari, "Revisiting Perceived Service Quality in Higher Education: Uncovering Service Quality Dimensions for Postgraduate Students," *Journal of Marketing for Higher Education* 30, no. 1 (2020): 1–25, https://doi.org/10.1080/08841241.2019.1648360.

[70] Mahmoud Abdulai Mahmoud et al., "Culture and Country Choice of International Students: Evidence from Ghana," *Journal of Marketing for Higher Education* 30, no. 1 (2020): 1–20, https://doi.org/10.1080/08841241.2019.1688444.

[71] Audhesh K. Paswan and Gopala Ganesh, "Higher Education Institutions: Satisfaction and Loyalty among International Students," *Journal of Marketing for Higher Education* 19, no. 1 (2009): 65–84, https://doi.org/10.1080/08841240902904869.

[72] Fares; Djafri, Meguellati; Achour, and Kachkar; Omar, "The Impact of Service Quality, Student Satisfaction, and University Reputation on Student Loyalty: A Case Study of International Students in IIUM, Malaysia," *Information Management & Business Review* 5, no. 12 (2014): 584-590.

[73] Faizan et al., "Does Higher Education Service Quality Effect Student Satisfaction, Image and Loyalty?: A Study of International Students in Malaysian Public Universities."

[74] Yet Mee; Lim, Ching Seng; Yap, and Teck Heang; Lee, "Destination Choice, Service Quality, Satisfaction, and Consumerism: International Students in Malaysian Institutions of Higher Education," *African Journal of Business Management* 5, no. 5 (2011): 1691–1702, https://doi.org/10.5897/AJBM10.610.

[75] Lujain and Ridzuan, "Factors Influence the Satisfaction of International Students at Private Universities in Malaysia."

[76] Chee Hui; Ong, "Determinants of International Student's Satisfaction in UUM 2014" (Universiti Utara Malaysia, 2014).

[77] Sultana and Momen, "International Student Satisfaction and Loyalty: A Comparative Study of Malaysian and Australian Higher Learning Institutions."

Raposo[78] and Lai et al.[79] found a positive relationship between education service quality and perceived value. However, Brown & Mazzarol[80] found no relationship between a university's service quality and perceived value. Both studies were not tested solely on international students.

This study aims to test the relationship between service quality (which includes academic services (Aca), non-academic services (NonAca), and external living environment (ExtEnv)) and perceived value (PV). The following hypotheses are formulated for testing:

- H1: There is a positive relationship between Aca and PV.
- H2: There is a positive relationship between NonAca and PV.
- H3: There is a positive relationship between ExtEnv and PV.

II.4. Image

Image is associated with the brand and reputation of an institution.[81] It likewise refers to students' perceptions of their university in an educational context.[82,83] The image of a university, which is a reflection of excellence in its quality of education, influences the evaluation of students on their overall

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[78] Alves and Raposo, "Conceptual Model of Student Satisfaction in Higher Education."

[79] M. M. Lai et al., "Assessing Antecedents and Consequences of Student Satisfaction in Higher Education: Evidence from Malaysia," *Journal of Marketing for Higher Education* 25, no. 1 (2015): 45–69, https://doi.org/10.1080/08841241.2015.1042097.

[80] Brown and Mazzarol, "The Importance of Institutional Image to Student Satisfaction and Loyalty within Higher Education."

[81] Fred; Selnes, "An Examination of the Effect of Product Performance on Brand Reputation, Satisfaction and Loyalty," *European Journal of Marketing* 27, no. 9 (1993): 19–35, https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216.

[82] Purificación Alcaide-Pulido, Helena Alves, and Belén Gutiérrez-Villar, "Development of a Model to Analyze HEI Image: A Case Based on a Private and a Public University," *Journal of Marketing for Higher Education* 27, no. 2 (2017): 162–87, https://doi.org/10.1080/08841241.2017.1388330.

[83] Osama K. Haniya and Hamdan Said, "Influential Factors Contributing to the Understanding of International Students' Choice of Malaysian Higher Education Institutions: Qualitative Study with a Focus on Expected Benefits," *Tuning Journal for Higher Education* 9, no. 2 (2022): 63–97, https://doi.org/10.18543/tjhe.1966.

perceived value and subsequent satisfaction level.[84,85,86] International students perceive that the image of a reputable brand, prestige, and recognition of qualifications will improve their marketability and future employment.[87,88,89] A university's image can be enhanced by providing high-quality education and having its programmes recognised internationally.[90] This can contribute to improvements in a university's ranking.[91] LeBlanc and Nguyen[92] and Brown and Mazzarol[93] have confirmed that image is a driver of value among tertiary students. The following hypothesis is thus proposed for testing:

• H4: There is a positive relationship between Image and PV.

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[84] Rodney; Arambewela and John; Hall, "A Comparative Analysis of International Education Satisfaction Using SERVQUAL," *Journal of Services Research* 6 (2006): 141–63, https://dro.deakin.edu.au/articles/journal_contribution/A_comparative_analysis_of_international_education_satisfaction_using_servqual/20540052

[85] Chiu Mei Chee et al., "Country of Origin and Country of Service Delivery Effects in Transnational Higher Education: A Comparison of International Branch Campuses from Developed and Developing Nations," *Journal of Marketing for Higher Education* 26, no. 1 (2016): 86–102, https://doi.org/10.1080/08841241.2015.1103352.

[86] Asuncion Beerli; Palacio, Gonzalo Diaz; Meneses, and Pedro J. Perez; Perez, "The Configuration of the University Image and Its Relationship with the Satisfaction of Students," *Journal of Educational Administration* 40, no. 5 (2002): 486–505, https://doi.org/10.1108/09574090910954864.

[87] Wei-Loon; Koe and Saring; Siti Noraisah, "Factors Influencing the Foreign Undergraduates' Intention to Study at Graduate School of a Public University," *Jurnal Kemanusiaan* 19 (2012): 57–68.

[88] Maria Pereda, David Airey, and Marion Bennett, "Service Quality in Higher Education : The Experience of Overseas Students," *Journal of Hospitality, Leisure, Sport and Tourism Education* 6, no. 2 (2007): 55–67, https://doi.org/10.3794/johlste.62.160.

[89] Koe and Siti Noraisah, "Factors Influencing the Foreign Undergraduates' Intention to Study at Graduate School of a Public University"; Pereda, Airey, and Bennett, "Service Quality in Higher Education : The Experience of Overseas Students."

[90] Sultana and Momen, "International Student Satisfaction and Loyalty: A Comparative Study of Malaysian and Australian Higher Learning Institutions."

[91] Rodney; Arambewela and John; Hall, "A Model of Student Satisfaction : International Postgraduate Students from Asia," *European Advancces in Consumer Research* 8 (2008): 129–35, https://doi.org/43008804.

[92] Gaston LeBlanc and Nha Nguyen, "Listening to the Customer's Voice: Examining Perceived Service Value among Business College Students," *International Journal of Educational Management* 13, no. 4 (1999): 187–98, https://doi.org/10.1108/09513549910278106.

[93] Brown and Mazzarol, "The Importance of Institutional Image to Student Satisfaction and Loyalty within Higher Education."

II.5. *Perceived value and satisfaction*

Perceived value is the antecedent of satisfaction.[94] Several studies have demonstrated a correlation between perceived value and satisfaction[95,96,97] with similar results in the university context.[98,99] The evaluation of perceived value is based on the services received compared to the expenses incurred by international students in the host country, including tuition and living costs. Those international students who believe they have gained value for their money are more satisfied than those who are not. When the perceived value of international students increases, their satisfaction level also increases, leading to the following hypothesis:

• H5: There is a positive relationship between PV and SAT.

II.6. *Word-of-mouth and loyalty*

Satisfaction and post-behavioral intention have a positive relationship.[100,101,102,103] Satisfied international students will demonstrate

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[94] McDougall and Levesque, "Customer Satisfaction with Services: Putting Perceived Value into the Equation."

[95] J.Joseph Cronin, Michael K Brady, and G.Tomas M Hult, "Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments," *Journal of Retailing* 76, no. 2 (2000): 193–218, https://doi.org/10.1016/S0022-4359(00)00028-2.

[96] Fornell et al., "The American Customer Satisfaction Index : Nature, Purpose and Findings."

[97] Johnson et al., "The Evolution and Future of National Customer Satisfaction Index Models."

[98] Irene Trullas et al., "Student-Perceived Organizational Support and Perceived Employability in the Marketing of Higher Education," *Journal of Marketing for Higher Education* 28, no. 2 (2018): 266–81, https://doi.org/10.1080/08841241.2018.1488334.

[99] Fernando de Oliveira Santini et al., "Student Satisfaction in Higher Education: A Meta-Analytic Study," *Journal of Marketing for Higher Education* 27, no. 1 (2017): 1–18, https://doi.org/10.1080/08841241.2017.1311980.

[100] Khurram Sharif and Norizan Mohd Kassim, "Non-Academic Service Quality: Comparative Analysis of Students and Faculty as Users," *Journal of Marketing for Higher Education* 22, no. 1 (2012): 35–54, https://doi.org/10.1080/08841241.2012.705793.

[101] Johnson et al., "The Evolution and Future of National Customer Satisfaction Index Models."

[102] Brown and Mazzarol, "The Importance of Institutional Image to Student Satisfaction and Loyalty within Higher Education."

[103] A Turkyilmaz and C Ozkan, "Development of a Customer Satisfaction Index Model - An Application to the Turkish Mobile Phone Sector," *Industrial Management Data Systems* 107, no. 5–6 (2007): 672–87, https://doi.org/10.1108/02635570710750426.

positive post-behavioural intention, such as loyalty in choosing the same institution and country for further studies.[104] Accordingly, they will be more likely to suggest the university and host country to others through positive WoM recommendations.[105,106] This is consistent with the theory of planned behavior, where consumers strongly intend to engage in future behavior, such as being loyal and willing to share experiences with others.[107] It is hypothesized:

- H6: There is a positive relationship between SAT and WoM
- H7: There is a positive relationship between SAT and Loyalty

The literature was used to identify the dimensions of each construct[108] and verified by a preliminary study based on interviews with 20 international students while including additional variables.[109] A proposed Malaysia International Students' Satisfaction Model (MISS-Model) was developed from the extant literature based on the satisfaction model, consumer satisfaction theory, and equity theory.[110] The MISS-Model comprises four constructs as the drivers of perceived value: Internal Environment - Academic (Aca); Internal Environment - Non-Academic (NonAca); External Environment (ExtEnv); and Image. These four constructs are hypothesized to influence international students' perceived value (PV) and satisfaction (SAT). The hypothesized model also examined the relationship of post-behavioural intentions of satisfaction being: WoM recommendation and loyalty. The framework indicates 57 dimensions (Table 1) influencing international students' perceived value, satisfaction, and post-behavioural intentions. The seven hypotheses were tested as depicted in the conceptual framework in Figure 1.

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[104] Alves and Raposo, "Conceptual Model of Student Satisfaction in Higher Education."

[105] Paswan and Ganesh, "Higher Education Institutions: Satisfaction and Loyalty among International Students."

[106] Shafaei; Azadeh and Abd Razak; Nordin, "International Postgraduate Students' Cross-Cultural Adaptation in Malaysia: Antecedents and Outcomes," *Research in Higher Education* 57, no. 6 (2016): 739–67, https://doi.org/10.1007/s11162-015-9404-9.

[107] Dacko, *The Advanced Dictionary of Marketing : Putting Theory to Use*.

[108] Pui Yee Chong, "Internationalisation of Higher Education : Proposed Framework on International Students' Satisfaction." *Pertanika Journal of Social Sciences and Humanities* 23, no. Special Issue (2015): 73–90.

[109] Pui Yee Chong, Siew Yean Tham, and Andrew Jia Yi Kam, "Verifying International Students' Satisfaction Framework for the Development of MISS-Model in Malaysia," *Pertanika Journal of Social Sciences and Humanities* 26, no. January (2018): 1–18.

[110] Pui Yee Chong, "Internationalisation of Higher Education : Proposed Framework on International Students' Satisfaction."

Table 1

Dimensions Influencing International Students' Perceived Value and Satisfaction

Internal Environment: Academic	Internal Environment: Non-Academic	External Environment
Course content	Orientation	Friends
Course material	Student administration services	Relatives
Course delivery	In-Campus accommodation	Society or community
Course assessment	Transportation	Discrimination
Lecturer	Healthcare	Safety & security
Class size	Financial assistance	Language
Computer & laboratory	Sports & recreation	Culture
Library	Clubs & societies	Weather/Climate
Internet	Counselling services	Food
Classroom	Career guidance	Proximity to home country
Admission requirement	Care & belongingness	Legal Framework (visa)
Medium of instruction	*Food on campus*	Employment opportunity
Engagement with other students	*Safety & security*	Migration opportunity
Academic support	*Practice of religion*	*Practice of religion*
	Diversity of student population	*Accommodation*
	Location of campus	*Public transportation*
	Physical building & environment	*Healthcare*
		Places of attraction
		Government-to-Government relationship (G2G)
		Industrial training

Image	Perceived Value
Brand & prestige	Fee
Recognition of qualification	Cost of living (Food, Accommodation, Transportation, Healthcare, etc.)
University ranking	*Personal international experience & exposure*

Note: A total of 39 dimensions have been identified from the literature review, and another 18 dimensions (in bold and italics font) were identified through interviews.

Source: Data from Literature Review and Interviews.

Figure 1
Conceptual framework

III. Methods

III.1. Participants and procedure

The sample is based on international student enrolment in Malaysia. According to the data, 70% of international students are enrolled in private institutions of higher education (PrHEIs), with 89 percent of these students enrolled in undergraduate programmes (87 percent of which are in Selangor and Kuala Lumpur), and 44 percent studying at PrUs.[111] There are four types of PrHEI: PrUs, university colleges, international branch campuses (IBC), and colleges. A list of PrUs that offer degree programmes in the Klang Valley was sourced from the Malaysian Qualifications Agency (MQA) website. Twenty-five PrUs were invited to participate in the survey, 13 of which accepted and granted permission for surveys to be conducted within their institutions, including one institution that did not complete the survey.

Purposive sampling was used, targeting those international undergraduate students who have at least completed the first year of their respective degree programmes. This ensured that they were credible respondents with

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[111] Ministry of Higher Education Malaysia, *Higher Education Statistics 2017*.

sufficient experience to give responses on learning and living in Malaysia. The total number of international students enrolled in 2016 at PrU in Selangor and Kuala Lumpur was 35,237. The estimated population, accounting for 70 percent of those enrolled in degree programmes, was 24,667. Based on this estimation, the proposed sample size, according to Krejcie and Morgan,[112] was 379 respondents. The calculation was based on a population of 30,000 with a 95 percent confidence level and a 5 percent margin of error. According to the power table (Cohen, 1992 in Hair, 2016),[113] to run the analysis of this PLS-SEM model it needs a sample size of 228 to detect R^2 values of approximately 0.1 with a significance level of 1% and a statistical power of 80%. There were 958 surveys distributed, and 630 were collected, leading to a 66 percent response rate from the 12 participating PrUs.

III.2. Measures

Based on the review of the literature and the information gathered from interviews in the preliminary investigation, a survey questionnaire was developed. This preliminary study involved two studies, firstly a review of primary and secondary literature on international students and students' satisfaction. Primary literature comprises works authored by the original researchers, whereas secondary literature consists of works that have been evaluated and analysed by other authors. A total of forty two primary literature and thirty two secondary literature were reviewed. The findings of the review revealed that studies on international students can be categorised into five themes: (i) factors that influence the choice of study destination, (ii) international students' experience and expectations, (iii) challenges, problems and adjustment faced by international students, (iv) perspective on service quality, and (v) factors that influence satisfaction. These five themes formed contributing factors to international students' satisfaction. These overlaps of variables are subsequently categorised into five constructs that influence international students' satisfaction. The constructs include: (1) Internal Environment-Academic, (2) Internal Environment Non-Academic, (3) External Environment, (4) Image, and (5) Perceived Value with 39 dimensions.[114]

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[112] Robert V Krejcie and Daryle W Morgan, "Determining Sample Size for Research Activities," *Educational and Psychological Measurement* 38, no. 1 (1970): 607–10, https://doi.org/10.1177/001316447003000308.
[113] Joseph Hair F. Jr. et al., *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 2nd Editio (California: Sage Publications, 2016).
[114] Pui Yee Chong, "Internationalisation of Higher Education : Proposed Framework on International Students ' Satisfaction."

The second study was conducted to verify the five constructs and 39 dimensions through interviews with 20 international students from 14 nationalities at 11 private universities located in the Klang Valley, Malaysia. This verification process is needed because the literature reviewed in the first study is limited in the context of Malaysia. The outcome of the study has verified and confirmed the 39 dimensions in measuring international students' satisfaction and 18 new dimensions were suggested by interviewees (Table 1).

Table 2

Summary of Items for Dimensions of All Constructs

Constructs	Dimensions	Number of Items
Internal Environment: Academic	A1. Course/Syllabus/Subject	4
	A2. Course/Subject Material	5
	A3. Course Delivery	6
	A4. Course Assessment	5
	A5. Admission Requirement	2
	A6. Lecturer	9
	A7. Engagement with Other Students	4
	A8. Laboratory & Computer Lab Facilities	4
	A9. Library Facilities	4
	A10. Internet Access and Connection	3
	A11. Classroom/Lecture Hall	2
	A12. Academic Support	2
Internal Environment: Non-Academic	B1. Student Administration Services (e.g. International Office/Registrar office/ Student Affairs/Finance Department)	8
	B2. Orientation	3
	B3. On-Campus Accommodation	3
	B4. Transportation (provided by the university)	5
	B5. Food on the Campus	2
	B6. Healthcare on the Campus	3
	B7. Safety & Security on the Campus	2
	B8. Financial Assistance	4
	B9. Sports & Recreation	3
	B10. Clubs & Society	4
	B11. Career Guidance	2
	B12. Care & Belongingness	5
	B13. Diversity of Student Population	3
	B14. Location of Campus	4
	B15. Physical Building & Environment on the Campus	2

Constructs	Dimensions	Number of Items
External Environment	C1. Social Support (Relatives & Friends) C2. Society & Community C3. Safety & Security in Malaysia C4. Discrimination C5. Language & Communication C6. Culture C7. Food C8. Public Transportation (outside the campus) C9. Healthcare (outside the campus) C10. Location of Malaysia C11. Attraction of Malaysia C12. Government & Legal Framework C13. Industrial Training/Internship	6 6 2 3 5 3 2 4 3 3 6 8 2
Image	D1. Brand D2. Recognition D3. Ranking & Rating	5 2 2
Perceived Value	E1. Fee E2. Cost of Living E3. Other Value Gained	3 4 4
Post Behavioural	F1. WoM F2. Loyalty	4 5
Overall Satisfaction	Single-item question	1

Source: Survey questionnaire.

Subsequently, items were developed for each dimension; the survey questionnaire was pre-tested on 10 international students to test the comprehension of the items and pilot-tested on 45 international students at a private university in Malaysia. The final survey questionnaire has 48 dimensions and 186 items (Appendix 2 Survey Questionnaire) tested for validity and reliability with Cronbach's alpha scores of 0.7 and above.[115,116] The detail on scale development is reported in Chong,[117] and a summary of

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[115] John W. Creswell, *Educational Research : Planning, Conducting, and Evaluating Quantitative and Qualitative Research*, 3rd Edition (New Jersey: Pearson Education, 2008).

[116] Nancy L.; Leech, Karen C.; Barrett, and George A; Morgan, *SPSS for Intermediate Statistics : Use and Interpretation*, 2nd Edition (New Jersey: Lawrence Erlbaum Associates, 2005).

[117] Pui Yee Chong, "Measuring International Students' Satisfaction : The Development of Survey Instrument," in *Global Conference On Business And Economics Research (GCER) 2017* (Serdang: Universiti Putra Malaysia, 2017), 112–19, https://doi.org/ISBN 978-983-2408-56-7.

items for dimensions of all constructs is shown in Table 2. Respondents' demographic information which includes age, gender, country of origin, marital status, religion, duration in Malaysia, language used in home country, institution of learning, field of study, duration in the current university, year of study, sponsorship and results in CGPA was also included in the survey questionnaire.

III.3. *Statistical techniques*

Data examination was conducted; cases with more than 10 percent missing values were deleted, and outliers were kept as items had passed a five percent trimmed mean score.[118] Usable surveys were thus obtained from 502 respondents, which is higher than the proposed 379, thereby increasing the sample size. SPSS version 24 was used to run a descriptive analysis, and SmartPLS version 3.0 software was used to evaluate the path modelling of the hypothesized MISS-Model. PLS-SEM was used because of the complexity of the reflective-reflective hierarchical component model. There were 186 reflective indicators as lower-order components and 48 higher-order dimensions, and four exogenous constructs, which include Aca, NonAca, ExtEnv, and Image to PV, where PV, SAT, Loyalty, and WoM are the endogenous variables.

IV. Results

IV.1. *Respondents' demographic profile*

About 70 percent were males, and 30 percent were females. The profile of these respondents, with a mean age of 22.88, (SD 3.055) reflected the study population.[119,120,121] On average, respondents have lived and studied in their institution for more than 2 years, as the data shows: living in Malaysia (mean 2.67, SD 1.259), studying in the institution (mean 2.29, SD 1.062),

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[118] Julie Pallant, *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS*, 5th Edition (Berkshire: McGraw-Hill, 2013).

[119] Ministry of Higher Education Malaysia, *Higher Education Statistics 2015* (Putrajaya: Ministry of Higher Education Malaysia, 2016), https://www.mohe.gov.my/muat-turun/statistik.

[120] Ministry of Higher Education Malaysia, *Higher Education Statistics 2016* (Putrajaya: Ministry of Higher Education Malaysia, 2017), https://www.mohe.gov.my/muat-turun/statistik.

[121] Ministry of Higher Education Malaysia, *Higher Education Statistics 2017*.

and in their year of study (mean 2.63, SD 0.731). Half of those who responded were in their second year of study, and the other half were in their third and final year. Given the duration of the study, the respondents would have accumulated enough experience to offer reliable input on their study experience on campus and living in Malaysia. Respondents came from 56 countries in eight regions. The highest number of respondents were from Indonesia (13.7 percent), followed by Yemen (11.2 percent), Nigeria (7.8 percent), Sudan (7.4 percent), and Bangladesh (6.8 percent). According to the Ministry of Higher Education Malaysia,[122,123,124] these top five nations were also among the top 10 source countries for international students in Malaysia. The majority were Muslims (71 percent), with the balance including Christians (13.4 percent), Buddhists (7 percent), and Hindus (1.6 percent).

IV.2. *Level of satisfaction*

The descriptive statistics indicated that 94.4 percent of respondents were at least satisfied studying and living in Malaysia, comprising: those who were Satisfied (64.15 percent); Very Satisfied (25.1 percent); and Extremely Satisfied (5.2 percent). Approximately 4.8 percent of the respondents were Dissatisfied, and less than 1 percent responded as Very Dissatisfied. The mean satisfaction score is 3.291, with a standard deviation of 0.6739, indicating that respondents are relatively satisfied, leaning more towards the "satisfied" category, and the majority of respondents had similar levels of satisfaction.

IV.3. *Assessment of measurement model*

Overall, the results of the six measurement models: (i) Aca, (ii) NonAca; (iii) ExtEnv; (iv) Image; (v) PV; and (vi) Post Behavioural intention (PB) passed the evaluation on the Outer Loadings, Cronbach's Alpha (CA), Composite Reliability (CR), Average Variance Extracted (AVE), Cross-Loading, Fornell-Larcker and Heterotrait-monotrait Ratio of Correlations (HTMT). Internal consistency reliability, convergent validity, and discriminant validity have all been sufficiently established by the tests. However, four items from each of the Aca and NonAca constructs, nine from

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[122] Ministry of Higher Education Malaysia, *Higher Education Statistics 2015*.

[123] Ministry of Higher Education Malaysia, *Higher Education Statistics 2016*.

[124] Ministry of Higher Education Malaysia, *Higher Education Statistics 2017*.

the ExtEnv construct, and two from the Post Behavioural intention construct have outer loading below 0.70. The treatment of these items (whether to keep or remove them) was based either on statistical grounds, such as improving the CA and CR scores or using content validity as supported by the literature and empirical findings from the interviews. Accordingly, five items were deleted, and the other 14 items were kept for content validity reasons. The final number of items is 181, measuring 50 dimensions in the MISS-Model. The detailed results of the measurement model are found in Appendix 1.

IV.4. *Assessment of structural model*

An assessment of the structural model showed that all four constructs that predict PV were not critically correlated because all the constructs have a variance inflation factor (VIF) below 3.3,[125] with the corresponding scores being: Aca (2.718), NonAca (2.562), ExtEnv (1.822), and Image (3.127). Thereafter, bootstrapping, with 5,000 subsamples, a 1-tailed test, and a 0.05 confidence interval, was conducted to examine the significance of the relationships.[126] The results from the path co-efficient estimates showed that all seven paths of relationship were found to have t-value $\geq$ 1.645, thus were significant at the 0.05 level of significance. The four constructs Aca ($\beta = 0.162$, p<0.002), NonAca ($\beta = 0.103$, p<0.024), ExtEnv ($\beta = 0.387$, p<0.000), and Image ($\beta = 0.173$, p<0.000) were positively related to PV. The path coefficient for construct PV ($\beta = 0.207$, p<0.000) was positively related to SAT. The results of the effects, or post-behavioural intention of satisfaction, SAT ($\beta = 0.234$, p<0.000; $\beta = 0.214$, p<0.000), were positively related to both WoM and Loyalty, respectively. A summary of the results is found in Table 3.

Figure 2 depicts the hypothesized MISS-Model. In the figure, the R^2 of PV is 0.525, indicating that the four constructs; Aca, NonAca, ExtEnv, and Image, explained 52 percent of PV. A score of 0.50 is considered a moderate level of predictive accuracy[127]. The effect size is based on Cohen's guideline,[128] where values of 0.02, 0.15, and 0.35 represented small, medium, and large effects, respectively. Based on the results of the analysis, ExtEnv (0.123) had

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[125] Adamantios Diamantopoulos and Judy A. Siguaw, "Formative versus Reflective Indicators in Organizational Measure Development: A Comparison and Empirical Illustration," *British Journal of Management* 17, no. 4 (2006): 263–82, https://doi.org/10.1111/j.1467-8551. 2006.00500.x.

[126] Joseph F; Hair et al., *A Primer On Partial Least Squares Structural Equation Modeling (PLS-SEM)* (California: Sage Publications Inc., 2017).

[127] Hair et al.

[128] Jacob Cohen, *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed. (Hillsdale, NJ: Erlbaum, 1988).

close to a medium effect size in producing the R^2 for PV, while Image (0.035), Aca (0.020), and NonAca (0.007) had a small effect size. The results also indicated that PV (0.045) had a small effect on SAT, and SAT (0.058, 0.048) had a small effect size on WoM and Loyalty, respectively. Q^2 values measured the predictive relevance of the model - when the value is greater than zero,[129] a model has predictive relevance for certain endogenous constructs. The results showed that all four endogenous constructs have Q^2 values of greater than zero, PV ($Q^2=0.344$), SAT ($Q^2=0.039$), WoM ($Q^2=0.050$), and Loyalty ($Q^2=0.041$), PV had medium, and the others constructs have small predictive accuracy. This also indicates that the model had sufficient predictive relevance.

In summary, the above results answer the first and second objectives of the study. First, it has been identified that international students at PrUs are satisfied with their education and living experience in Klang Valley. Second, factors and dimensions influencing international students' perceived value and satisfaction were determined. All seven hypothesized relationships are positive and significant. Therefore, the hypothesized MISS-Model has been empirically tested and confirmed as a suitable model for measuring international students' satisfaction and their post-behavioural intention in Malaysia.

Table 3

Path Coefficient of MISS-Model

Hypothesis	Construct	Path-Coefficient (β)	t-value (1.645)	p-value (0.05)	Results	
H1	Aca → PV	0.162	2.905	0.002	Significant	Supported
H2	NonAca → PV	0.103	1.977	0.024	Significant	Supported
H3	ExtEnv → PV	0.387	7.603	0.000	Significant	Supported
H4	Image → PV	0.173	3.414	0.000	Significant	Supported
H5	PV → SAT	0.207	4.016	0.000	Significant	Supported
H6	SAT → WoM	0.234	4.950	0.000	Significant	Supported
H7	SAT → Loyalty	0.214	4.683	0.000	Significant	Supported

Note: *significant at p<0.10 (t>1.28); **significant at p<0.05 (t>1.645); ***significant at p<0.01 (t>2.33); ns = not significant.

Source: Survey data.

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[129] Hair et al., *A Primer On Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

Figure 2

Path Coefficient and Coefficient
of Determination of Hypothesized Model

Note: *significant at p<0.10 (t>1.28); **significant at p<0.05 (t>1.645); ***significant at p<0.01 (t>2.33); ns = not significant.

Source: Findings from survey data.

V. Discussions

Overall, the study's findings revealed that international students were satisfied with their studies at PrUs while living in Klang Valley. Lujain & Ridzuan[130] also found that international students were moderately satisfied. In contrast, Chinese students were somewhat dissatisfied with their experience studying in Malaysia, according to Lim et al.[131] Results from this study indicated that international students were satisfied, in contrast to other

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[130] Lujain and Ridzuan, "Factors Influence the Satisfaction of International Students at Private Universities in Malaysia."

[131] Lim, Yap, and Lee, "Destination Choice, Service Quality, Satisfaction, and Consumerism: International Students in Malaysian Institutions of Higher Education."

studies[132,133,134] indicating problems, challenges, and adjustment difficulties experienced by international students in Malaysia. This is because the respondents in this study were at least second-year students and have settled in and adjusted to the culture and other changes affecting their living and studying in Malaysia. Additionally, they found social support from Malaysian and international friends of the same and different nationalities with whom they form friendships[135] through clubs and societies both inside and outside of their campus. They have also become familiar with the teaching and learning systems of their institutions, which has an influence on their level of satisfaction. Seventy percent of respondents were from Muslim countries, which aided in their adaptation to the culture of Malaysia, where Muslims make up more than sixty percent of the population. This situation has demonstrated the theory of perceived cultural proximity, in which similar religious and cultural values have facilitated their adaptation of lifestyle in Malaysia. As fee-paying students, international students viewed themselves as customers and expected to receive high-quality academic and living experience at reasonable cost that is value-for-money. The result also suggests that PrUs in the Klang Valley have provided students with the quality education they anticipated, and that Malaysia is perceived as a host country with a quality living environment. The accumulated experiences of international students indicate that Malaysia, as an affordable study destination, has provided international students with the exposure, environment, and quality of life they seek while studying abroad. This is an encouraging sign for Malaysia's aspiration to become an international education hub. According to Tribal i-graduate's global international student satisfaction survey, Malaysia compares favourably to other mature study destination such as the UK and the US, with 89% and 92% satisfaction levels, respectively. This research also found that Malaysia had the same

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[132] Masoumeh Alavi and Syed Mohamed Shafeq Mansor, "Categories of Problems among International Students in Universiti Teknologi Malaysia," *Procedia - Social and Behavioral Sciences* 30 (2011): 1581–87, https://doi.org/10.1016/j.sbspro.2011.10.307.

[133] Baharak; Talebloo and Roselan; Baki, "Challenges Faced by International Postgraduate Students during Their First Year of Studies," *International Journal of Humanities and Social Science* 3, no. 13 (2013): 138–45.

[134] Mohd. Yusoff; Yusliza and Chelliah Shankar, "Adjustment in International Students in Malaysian Public University," *International Journal of Innovation, Management and Technology*, 1, no. 3 (2010): 275–78.

[135] Mohd. Yusoff; Yusliza, "Self-Efficacy, Perceived Social Support, and Psychological Adjustment in International Undergraduate Students in a Public Higher Education Institution in Malaysia," *Journal of Studies in International Education* 16, no. 4 (2012): 353–71, https://doi.org/10.1177/1028315311408914.

satisfaction level as Singapore, at 89%. This neighbouring country, which shares social and geographical characteristics with Malaysia, is likewise a rising contender in international education.

The study indicated that the external environment was the strongest construct influencing their perceived value, which is consistent with other studies.[136,137] The study found that the strongest determinants were community, language and communication, and the attractions of Malaysia. International students generally found the Malaysian community friendly, helpful, and easy to live with. Relationships with the local community were facilitated because language was not a barrier. Many locals speak English, which helped foster communication with neighbours and other service providers, including transport providers, retail assistants, and food operators, thus easing their adjustment to living in the country. As a multicultural society, Malaysia provides the environment for them to practice their religion, participate in festivities, and visit local attractions. Hence, besides studying, these external living environment attributes improved their perceived value and subsequent satisfaction levels.

Extant studies have shown the impact of image on perceived value.[138,139,140] This study also supports this relationship, as image is the second strongest construct to perceived value. The image of a university is informed by its brand strength, ranking, and the recognition of its degrees. International students perceived their institutions as possessing a good reputation while featuring among the best PrUs in Malaysia in delivering quality education. The results also indicated that recognition of qualifications, both locally and internationally, was an important factor in how they perceived the image of their university.

The third strongest construct is Internal Environment - Academic. The strongest contributing dimensions were lecturers, followed by course delivery, course material, assessment, and course content, which are all

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[136] Rodney; Arambewela and John; Hall, "The Interactional Effects of the Internal and External University Environment, and the Influence of Personal Values, on Satisfaction among International Postgraduate Students," *Studies in Higher Education* 38, no. 7 (2011): 972–88, https://doi.org/10.1080/03075079.2011.615916.

[137] Constanza Bianchi and Judy Drennan, "Inward Internationalization of Services: Exploring Satisfaction and Dissatisfaction of Overseas Students in Australia," 2011, http://eprints.qut.edu.au/47711/.

[138] Hsiao Yun Lu and Wann Yih Wu, "Factors Associated with Medical Travel Behaviours: The Input–Process–Output Perspective," *Current Issues in Tourism* 21, no. 3 (2015): 243–58, https://doi.org/10.1080/13683500.2015.1072503.

[139] Brown and Mazzarol, "The Importance of Institutional Image to Student Satisfaction and Loyalty within Higher Education."

[140] Alves and Raposo, "Conceptual Model of Student Satisfaction in Higher Education."

causally linked to teaching and instruction. International students viewed these as more important than academic facilities such as laboratories, library, internet, classroom, and other educational support services. This is consistent with extant studies conducted in Malaysia[141,142] and other countries.[143,144]

The weakest relationship to PV among the four constructs was: Internal Environment - Non-Academic. Extant research revealed that many international students were dissatisfied with non-academic services on their campuses, such as bureaucratic administration processes,[145] insufficient recreational facilities,[146] poor service quality, and behaviour of support staff.[147,148] This study has shown that international students frequently engage with the International and Registrar's Office, Student Affairs, and Finance Department. Students perceived and assessed the value of these departments based on their experiences of service quality, including reliability and efficiency, and their ability to solve student problems. Other services such as reliable transportation, dedicated counsellors for international students, healthcare services, financial support, active clubs, and societies also influenced their perceived value. A comprehensive orientation programme helped them to familiarize with their campus and Malaysian culture.

The strongest dimensions within the perceived value construct were other value gained, cost of living, and fees payable by students. These results indicate that international students enjoyed their quality of life, gained valuable

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[141] Rajab Azizah, Hamidah Abdul Rahman, and Shaari Roziana, "The International Students' Perception towards the Education Quality," *International Journal of Social Sciences and Humanity Studies* 3, no. 2 (2011): 49–58.

[142] Ernest Kok Seng; Lim, "A Qualitative Study of Factors Contributing to International Students' Satisfaction of Institutional Quality," *Asian Social Science* 9, no. 13 (2013): 126–31, https://doi.org/10.5539/ass.v9n13p126.

[143] Rodney; Arambewela, *Post-Choice Satisfaction of International Postgraduate Students from Asia Studying in Victorian Universities.*, PhD Thesis (Victoria: Victoria University of Technology, 2003).

[144] Vincent O. Ikwuagwu, "International Student Satisfaction Levels with Student Support Services at Delaware State University" (Wilmington University, 2010).

[145] Gordon Slethaug and Jesilin Manjula, "The Business of Education : Improving International Student Learning Experiences in Malaysia," *World Journal of Social Sciences* 2, no. 6 (2012): 179–99.

[146] Alavi and Mansor, "Categories of Problems among International Students in Universiti Teknologi Malaysia."

[147] Baboucarr; Njie, Soaib; Asimiran, and Baki Roselan, "Perceptions of International Students on Service Quality Delivery in a Malaysian Public University," *Quality Assurance in Education* 20, no. 2 (2012): 153–63, https://doi.org/http://dx.doi.org/10.1108/QAE-11-2012-0046.

[148] Talebloo and Baki, "Challenges Faced by International Postgraduate Students during Their First Year of Studies."

living experience, and appreciated learning about Malaysia and its people. They were happy with their interactions with the community and many tourist attractions. Students perceived the quality of education and enjoyable life, at an affordable fee and cost of living, as good value for money during their study time in Malaysia. All of these dimensions are indicative of the impact of perceived values on satisfaction, as supported by other studies.[149,150]

The outcome of satisfaction was WoM and loyalty. The satisfied international students showed positive post-behavioural intention, word-of-mouth recommendations, and loyalty. This conclusion supported earlier research findings[151,152,153] that more satisfied students would most likely recommend and provide information about their university experience to prospective students. They tended to remain loyal and were more likely to choose the same university, and Malaysia as their destination, for future studies. However, Alves and Raposo[154] present different results, having found no relationship between satisfaction and WoM.

VI. Conclusion and implications

This study has three implications, categorised as theoretical, policy, and practical. This study contributes to the theory, adopting a cross-disciplinary approach using consumer satisfaction theory, equity theory and satisfaction model, and literature on international student satisfaction. Consequently, the constructs of perceived value, image, and post-behavioural intention, along with comprehensive dimensions, were incorporated into the model. These few constructs and dimensions were not tested in previous studies,[155,156] and

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[149] Alves and Raposo, "Conceptual Model of Student Satisfaction in Higher Education."

[150] Brown and Mazzarol, "The Importance of Institutional Image to Student Satisfaction and Loyalty within Higher Education."

[151] Sharif and Kassim, "Non-Academic Service Quality: Comparative Analysis of Students and Faculty as Users."

[152] Paswan and Ganesh, "Higher Education Institutions: Satisfaction and Loyalty among International Students."

[153] Grady Bruce and Rachel Edgington, "Factors Influencing Word-of-Mouth Recommendations by MBA Students: An Examination of School Quality, Educational Outcomes, and Value of the MBA," *Journal of Marketing for Higher Education* 18, no. 1 (2008): 79–101, https://doi.org/10.1080/08841240802100303.

[154] Alves and Raposo, "Conceptual Model of Student Satisfaction in Higher Education."

[155] Faizan et al., "Does Higher Education Service Quality Effect Student Satisfaction, Image and Loyalty?: A Study of International Students in Malaysian Public Universities."

[156] Lujain and Ridzuan, "Factors Influence the Satisfaction of International Students at Private Universities in Malaysia."

this study has established the relationship between them. This approach is superior to a mono-discipline approach in achieving a more holistic understanding of the issue.[157] Hence, it is recommended that cross-disciplinary approaches should be used in future studies of international students to capture multi-dimensions.

For Malaysia to remain competitive as an education hub, it needs to establish its image as a provider of quality education within a favourable living environment and not solely as an affordable destination. More efforts should be undertaken to promote Malaysia as a destination country that is politically stable, safe, and attractive within a multicultural society. Strengthening government-to-government bilateral ties and collaboration by increasing mutual recognition of qualifications would increase inbound student mobility. Many younger and smaller PrUs will need to devote time and resources to build their image and reputation. Hence, merging campuses may be beneficial as this could improve efficiency, increase resources, reduce redundancy, and accelerate image building.

PrUs should continue building their image and capacity. For newer or smaller universities, one of the strategies in building image includes forming a strategic partnership with foreign universities through the delivery of transnational programmes, such as joint or dual degree programmes. Established PrUs could continue to strengthen and expand global recognition of their degree programmes, including professional accreditations. By improving their ranking, universities will further enhance their image through increased information and awareness among students, parents, and sponsors. Additionally, establishing alumni chapters in sending countries may also promote the image of a university.

PrUs need to continuously build their administrative and academic capacity through competency development programmes for lecturers and support staff. Competencies in English, communication, and multicultural skills are essential when dealing with international students. PrUs should commit to constantly improving and upgrading their teaching facilities, including science and computer laboratories and libraries. Pastoral care is essential to guide international students in their adjustment to a new environment. Other efforts include building internationally orientated campuses accommodating diverse nationalities and ethnicities. Therefore, universities should attract and recruit international students from diverse countries by highlighting the benefits of learning in a multi-national

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[157] Klein Julie; Thompson, "Prospects for Transdisciplinarity," *Futures* 36, no. 4 (2004): 515–26, https://doi.org/10.1016/j.futures.2003.10.007.

environment. Finally, by engaging the local community, providing greater opportunities for international students would improve their total study experience abroad.

To summarize, these results show that the four constructs - academic, non-academic, external environment, and image - influenced perceived value and, thus, satisfaction. Increasing international students' perceived value and satisfaction requires improving the supporting ecosystem. This involves the campus environment and services from institutions, together with the entire community, business, and government policy, in providing a satisfying living experience for international students, which in turn will make Malaysia an attractive international education destination.

Overall, this study found that international students were satisfied with their studies at PrUs while living in the Klang Valley. Lujain & Ridzuan[158] also found that international students were moderately satisfied. In contrast, Chinese students were somewhat dissatisfied with their experience studying in Malaysia, according to Lim et al.[159] Results from this study indicated that international students were satisfied, in contrast to other studies.[160,161,162]

This study only investigated respondents from the PrUs in the Klang Valley; thus, the results may only represent international students from these institutions. As such, it is recommended the study be extended to a broader sampling frame that includes all types of PrHEIs beyond Klang Valley. The model only tested the direct relationship among constructs; hence, identifying moderating factors, such as the personality of international students, may be considered for future studies. Finally, a comparative study among different regions of top-sending countries may reveal new dimensions of the relationships in each construct arising from socio-cultural differences.

Bibliography

Alavi, Masoumeh, and Syed Mohamed Shafeq Mansor. "Categories of Problems among International Students in Universiti Teknologi Malaysia." *Procedia -*

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[158] Lujain and Ridzuan, "Factors Influence the Satisfaction of International Students at Private Universities in Malaysia."

[159] Lim, Yap, and Lee, "Destination Choice, Service Quality, Satisfaction, and Consumerism: International Students in Malaysian Institutions of Higher Education."

[160] Alavi and Mansor, "Categories of Problems among International Students in Universiti Teknologi Malaysia."

[161] Talebloo and Baki, "Challenges Faced by International Postgraduate Students during Their First Year of Studies."

[162] Yusliza and Shankar, "Adjustment in International Students in Malaysian Public University."

Social and Behavioral Sciences 30 (2011): 1581–87. https://doi.org/10.1016/j.sbspro.2011.10.307.

Alcaide-Pulido, Purificación, Helena Alves, and Belén Gutiérrez-Villar. "Development of a Model to Analyze HEI Image: A Case Based on a Private and a Public University." *Journal of Marketing for Higher Education* 27, no. 2 (2017): 162–87. https://doi.org/10.1080/08841241.2017.1388330.

Alemu, Aye Mengistu, and Jason Cordier. "Factors Influencing International Student Satisfaction in Korean Universities." *International Journal of Educational Development* 57, no. June (2017): 54–64. https://doi.org/10.1016/j.ijedudev.2017.08.006.

Alfy, Shahira El, and Abdulai Abukari. "Revisiting Perceived Service Quality in Higher Education: Uncovering Service Quality Dimensions for Postgraduate Students." *Journal of Marketing for Higher Education* 30, no. 1 (2019): 1–25. https://doi.org/10.1080/08841241.2019.1648360.

Alves, Helena. "The Measurement of Perceived Value in Higher Education: A Unidimensional Approach." *Service Industries Journal* 31, no. 12 (2011): 1943–60. https://doi.org/10.1080/02642069.2011.550042.

Alves, Helena, and Mário Raposo. "Conceptual Model of Student Satisfaction in Higher Education." *Total Quality Management and Business Excellence* 18, no. 5 (2007): 571–88. https://doi.org/10.1080/14783360601074315.

Andreassen, Tor Wallin;, and Bodil; Lindestad. "Customer Loyalty and Complex Services: The Impact of Corporate Image on Quality, Customer Satisfaction and Loyalty for Customers with Varying Degrees of Service Expertise." *International Journal of Service Industry Management* 9, no. 1 (1998): 7–23. https://doi.org/https://doi.org/10.1108/09564239810199923.

Arambewela, Rodney; *Post-Choice Satisfaction of International Postgradaute Students from Asia Studying in Victorian Universities*. PhD Thesis. Victoria: Victoria University of Technology, 2003.

Arambewela, Rodney;, and John; Hall. "A Comparative Analysis of International Education Satisfaction Using SERVQUAL." *Journal of Services Research* 6 (2006): 141–63. https://dro.deakin.edu.au/articles/journal_contribution/A_comparative_analysis_of_international_education_satisfaction_using_servqual/20540052.

———. "A Model of Student Satisfaction : International Postgraduate Students from Asia." *European Advancces in Consumer Research* 8 (2008): 129–35. https://doi.org/43008804.

———. "The Interactional Effects of the Internal and External University Environment, and the Influence of Personal Values, on Satisfaction among International Postgraduate Students." *Studies in Higher Education* 38, no. 7 (2011): 972–88. https://doi.org/10.1080/03075079.2011.615916.

Azadeh, Shafaei;, and Abd Razak; Nordin. "International Postgraduate Students' Cross-Cultural Adaptation in Malaysia: Antecedents and Outcomes." *Research in Higher Education* 57, no. 6 (2016): 739–67. https://doi.org/10.1007/s11162-015-9404-9.

Azizah, Rajab, Hamidah Abdul Rahman, and Shaari Roziana. "The International Students' Perception towards the Education Quality." *International Journal of Social Sciences and Humanity Studies* 3, no. 2 (2011): 49–58.

Bianchi, Constanza, and Judy Drennan. "Inward Internationalization of Services: Exploring Satisfaction and Dissatisfaction of Overseas Students in Australia," 2011. http://eprints.qut.edu.au/47711/.

Bolton, Ruth N.;, and James H.; Drew. "A Multistage Model of Customers' Assessments of Service Quality and Value." *Journal of Consumer Research* 17, no. 4 (1991): 375–84.

Brown, Robert M., and Timothy William Mazzarol. "The Importance of Institutional Image to Student Satisfaction and Loyalty within Higher Education." *Higher Education* 58, no. 1 (2009): 81–95. https://doi.org/10.1007/s10734-008-9183-8.

Bruce, Grady, and Rachel Edgington. "Factors Influencing Word-of-Mouth Recommendations by MBA Students: An Examination of School Quality, Educational Outcomes, and Value of the MBA." *Journal of Marketing for Higher Education* 18, no. 1 (2008): 79–101. https://doi.org/10.1080/08841240802100303.

Cai, Yuzhuo. "China's 2020 Target: Reshaping Global Mobility Flows." European Association for International Education, 2020. https://www.eaie.org/blog/china-2020-target-reshaping-global-mobility-flows.html.

Chee, Chiu Mei, Muhammad Mohsin Butt, Stephen Wilkins, and Fon Sim Ong. "Country of Origin and Country of Service Delivery Effects in Transnational Higher Education: A Comparison of International Branch Campuses from Developed and Developing Nations." *Journal of Marketing for Higher Education* 26, no. 1 (2016): 86–102. https://doi.org/10.1080/08841241.2015.1103352.

Ciavolino, Enrico, and Jens J. Dahlgaard. "ECSI - Customer Satisfaction Modelling and Analysis: A Case Study." *Total Quality Management and Business Excellence* 18, no. 5 (2007): 545–54. https://doi.org/10.1080/14783360701240337.

Cohen, Jacob. *Statistical Power Analysis for the Behavioral Sciences*. 2nd ed. Hillsdale, NJ: Erlbaum, 1988.

Creswell, John W. *Educational Research : Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. 3rd Edition. New Jersey: Pearson Education, 2008.

Cronin, J. Joseph, Michael K Brady, and G. Tomas M Hult. "Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments." *Journal of Retailing* 76, no. 2 (2000): 193–218. https://doi.org/10.1016/S0022-4359(00)00028-2.

Dacko, Scott G. *The Advanced Dictionary of Marketing : Putting Theory to Use*. New York: Oxford University Press, 2008.

Diamantopoulos, Adamantios, and Judy A. Siguaw. "Formative versus Reflective Indicators in Organizational Measure Development: A Comparison and Empirical Illustration." *British Journal of Management* 17, no. 4 (2006): 263–82. https://doi.org/10.1111/j.1467-8551.2006.00500.x.

Djafri, Fares;, Meguellati; Achour, and Kachkar; Omar. "The Impact of Service Quality, Student Satisfaction, and University Reputation on Student Loyalty: A

Case Study of International Students in IIUM, Malaysia." Edited by International Foundation for Research and Development. *Information Management & Business Review* 5, no. 12 (2014): 584–90.

Economic Planning Unit. *Eleventh Malaysia Plan 2016-2020*. Putrajaya: Prime Minister Department Malaysia, 2015. http://www.epu.gov.my.

———. *Ninth Malaysia Plan 2006-2010*. Putrajaya: Prime Minister Department Malaysia, 2006. http://epu.gov.my/sites/default/files/RM9_M.pdf.

Eklöf, Jan A.;, and Anders H.; Westlund. "The Pan-European Customer Satisfaction Index Programme - Current Work and the Way Ahead." *Total Quality Management* 13, no. 8 (2002): 1099–1106. https://doi.org/10.1080/09544120200000005.

Faizan, Ali;, Yuan; Zhou, Hussain; Kashif, Kumar Nair; Pradeep, and Ari Ragavan; Neethiahnathan. "Does Higher Education Service Quality Effect Student Satisfaction, Image and Loyalty?: A Study of International Students in Malaysian Public Universities." *Quality Assurance in Education* 24, no. 1 (2016): 70–94. https://doi.org/http://dx.doi.org/10.1108/QAE-11-2012-0046.

Fatima, Taqdees, Shahab Alam Malik, and Asma Shabbir. "Hospital Healthcare Service Quality, Patient Satisfaction and Loyalty: An Investigation in Context of Private Healthcare Systems." *International Journal of Quality and Reliability Management* 35, no. 6 (2018): 1195–1214. https://doi.org/10.1108/IJQRM-02-2017-0031.

Fornell, Claes. "A National Customer Satisfaction Barometer: The Swedish Experience." *Journal of Marketing* 56, no. 1 (1992): 6–21.

Fornell, Claes, Michael D Johnson, Eugene W Anderson, and Barbara Everitt Bryant. "The American Customer Satisfaction Index : Nature, Purpose and Findings." *Journal of Marketing* 60, no. 4 (1996): 7–18. https://doi.org/10.2307/1251898.

Grönroos, Christian; "A Service Quality Model and Its Marketing Implications." *European Journal of Marketing* 18, no. 4 (1984): 36–44. https://doi.org/10.1108/EUM0000000004784.

Guilbault, Melodi. "Students as Customers in Higher Education: Reframing the Debate." *Journal of Marketing for Higher Education* 26, no. 2 (2016): 132–42. https://doi.org/10.1080/08841241.2016.1245234.

Hair, Joseph F;, G. Tomas M; Hult, Christian M; Ringle, and Marko; Sarstedt. *A Primer On Partial Least Squares Structural Equation Modeling (PLS-SEM)*. California: Sage Publications Inc., 2017.

Haniya, Osama K., and Hamdan Said. "Influential Factors Contributing to the Understanding of International Students' Choice of Malaysian Higher Education Institutions: Qualitative Study with a Focus on Expected Benefits." *Tuning Journal for Higher Education* 9, no. 2 (2022): 63–97. https://doi.org/10.18543/tjhe.1966.

Hou, Angela Yung Chi;, Christopher; Hill, Karen Hui Jung; Chen, and Sandy; Tsai. "A Comparative Study of International Branch Campuses in Malaysia, Singapore, China, and South Korea: Regulation, Governance, and Quality

Assurance." *Asia Pacific Education Review* 19, no. 4 (2018): 543–55. https://doi.org/10.1007/s12564-018-9550-9.

ICEF Monitor. "Malaysia Competing for a Greater Share of International Students." ICEF Monitor, 2016. http://monitor.icef.com/2016/08/malaysia-competing-greater-share-inernational-students/.

———. "South Korea: Record Growth in International Student Enrolment," 2018. https://monitor.icef.com/2018/02/south-korea-record-growth-international-student-enrolment/.

Ikwuagwu, Vincent O. "International Student Satisfaction Levels with Student Support Services at Delaware State University." Wilmington University, 2010.

Iordanova, Elitza. "Tourism Destination Image as an Antecedent of Destination Loyalty : A Case of Linz, Austria." *European Journal of Tourism Research*, 2017, 214–32.

Johnson, Michael D., Anders Gustafsson, Tor Wallin Andreassen, Line Lervik, and Jaesung Cha. "The Evolution and Future of National Customer Satisfaction Index Models." *Journal of Economic Psychology* 22, no. 2 (2001): 217–45. https://doi.org/10.1016/S0167-4870(01)00030-7.

Joseph F. Jr., Hair;, G. Tomas M; Hult, Christian M.; Ringle, and Sarstedt Marko. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. 2nd Editio. California: Sage Publications, 2016.

Knight, Jane; *Higher Education in Turmoil*. Rotterdam: Sense Publishers, 2008.

Koe, Wei-Loon;, and Saring; Siti Noraisah. "Factors Influencing the Foreign Undergraduates' Intention to Study at Graduate School of a Public University." *Jurnal Kemanusiaan* 19 (2012): 57–68.

Koris, Riina, Anders Örtenblad, Katri Kerem, and Triinu Ojala. "Student-Customer Orientation at a Higher Education Institution: The Perspective of Undergraduate Business Students." *Journal of Marketing for Higher Education* 25, no. 1 (2015): 29–44. https://doi.org/10.1080/08841241.2014.972486.

Krejcie, Robert V, and Daryle W Morgan. "Determining Sample Size for Research Activities." *Educational and Psychological Measurement* 38, no. 1 (1970): 607–10. https://doi.org/10.1177/001316447003000308.

Kristensen, Kai, Anne Martensen, and Lars Gronholdt. "Customer Satisfaction Measurement at Post Denmark: Results of Application of the European Customer Satisfaction Index Methodology." *Total Quality Management* 11, no. 7 (2000): 1007–15. https://doi.org/10.1080/09544120050135533.

Lai, M. M., S. H. Lau, N. A. Mohamad Yusof, and K. W. Chew. "Assessing Antecedents and Consequences of Student Satisfaction in Higher Education: Evidence from Malaysia." *Journal of Marketing for Higher Education* 25, no. 1 (2015): 45–69. https://doi.org/10.1080/08841241.2015.1042097.

LeBlanc, Gaston, and Nha Nguyen. "Listening to the Customer's Voice: Examining Perceived Service Value among Business College Students." *International Journal of Educational Management* 13, no. 4 (1999): 187–98. https://doi.org/10.1108/09513549910278106.

Leech, Nancy L.;, Karen C.; Barrett, and George A; Morgan. *SPSS for Intermediate Statistics : Use and Interpretation*. 2nd Edition. New Jersey: Lawrence Erlbaum Associates, 2005.

Lim, Ernest Kok Seng; "A Qualitative Study of Factors Contributing to International Students' Satisfaction of Institutional Quality." *Asian Social Science* 9, no. 13 (2013): 126–31. https://doi.org/10.5539/ass.v9n13p126.

Lim, Yet Mee;, Ching Seng; Yap, and Teck Heang; Lee. "Destination Choice, Service Quality, Satisfaction, and Consumerism: International Students in Malaysian Institutions of Higher Education." *African Journal of Business Management* 5, no. 5 (2011): 1691–1702. https://doi.org/10.5897/AJBM10.610.

Lin, Ling;, Zhengwei; Huang, Bestoon; Othman, and Yin Luo. "Let's Make It Better: An Updated Model Interpreting International Student Satisfaction in China Based on PLS-SEM Approach." *PLoS ONE* 15, no. 7 (2020): 1–13. https://doi.org/10.1371/journal.pone.0233546.

Lu, Hsiao Yun, and Wann Yih Wu. "Factors Associated with Medical Travel Behaviours: The Input–Process–Output Perspective." *Current Issues in Tourism* 21, no. 3 (2015): 243–58. https://doi.org/10.1080/13683500.2015.1072503.

Lujain, Mohammed Hasan;, and Masri; Ridzuan. "Factors Influence the Satisfaction of International Students at Private Universities in Malaysia." *International Journal of Science and Research (IJSR) ISSN (Online Index Copernicus Value Impact Factor* 4, no. 8 (2015): 136–42.

Mahadin, Bushra K., and Mamoun N. Akroush. "A Study of Factors Affecting Word of Mouth (WOM) towards Islamic Banking (IB) in Jordan." *International Journal of Emerging Markets* 14, no. 4 (2019): 639–67. https://doi.org/10.1108/IJOEM-10-2017-0414.

Mahmoud, Mahmoud Abdulai, Elizabeth Oppong, Daniel Twimasie, Mohammed Muniru Husseini, Adelaide Naa Amerley Kastner, and Moses Oppong. "Culture and Country Choice of International Students: Evidence from Ghana." *Journal of Marketing for Higher Education* 30, no. 1 (2020): 1–20. https://doi.org/10.1080/08841241.2019.1688444.

Mallika Appuhamilage, Kumudini Sriyalatha, and Hiroshi Torii. "The Impact of Loyalty on the Student Satisfaction in Higher Education." *Higher Education Evaluation and Development* 13, no. 2 (2019): 82–96. https://doi.org/10.1108/heed-01-2019-0003.

McDougall, Gordon H.G., and Terrence Levesque. "Customer Satisfaction with Services: Putting Perceived Value into the Equation." *Journal of Services Marketing* 14, no. 5 (2000): 392–410. https://doi.org/10.1108/08876040010340937.

Meesala, Appalayya, and Justin Paul. "Service Quality, Consumer Satisfaction and Loyalty in Hospitals: Thinking for the Future." *Journal of Retailing and Consumer Services* 40, no. July 2016 (2018): 261–69. https://doi.org/10.1016/j.jretconser.2016.10.011.

Menan, Sandhya. "KL, Asia's Most Affordable Study Hub." The Star, 2022. https://www.thestar.com.my/news/nation/2022/06/30/kl-asias-most-affordable-study-hub.

Ministry of Education Malaysia. *Higher Education Statistics 2018*. Putrajaya: Ministry of Education Malaysia, 2019. https://www.mohe.gov.my/muat-turun/statistik.

———. *Malaysia Education Blueprint 2015-2025 : Higher Education*. Putrajaya: Ministry of Education Malaysia, 2015. https://doi.org/10.5923/j.ijis.20120206.05.

———. *Way Forward for Private Higher Education Institutions: Education As an Industry 2020-2025*. Vol. 1. Putrajaya: Ministry of Education Malaysia, 2020.

Ministry of Higher Education Malaysia. *Higher Education Indicator 2007*. Putrajaya: Ministry of Higher Education Malaysia, 2008. https://www.mohe.gov.my/muat-turun/statistik.

———. *Higher Education Statistics 2015*. Putrajaya: Ministry of Higher Education Malaysia, 2016. https://www.mohe.gov.my/muat-turun/statistik.

———. *Higher Education Statistics 2016*. Putrajaya: Ministry of Higher Education Malaysia, 2017. https://www.mohe.gov.my/muat-turun/statistik.

———. *Higher Education Statistics 2017*. Putrajaya: Ministry of Higher Education Malaysia, 2018. https://www.mohe.gov.my/muat-turun/statistik.

———. *Higher Education Statistics 2019*. Putrajaya: Ministry of Higher Education Malaysia, 2020. https://www.mohe.gov.my/muat-turun/statistik.

———. *Higher Education Statistics 2021*. Putrajaya: Ministry of Higher Education Malaysia, 2022. https://www.mohe.gov.my/muat-turun/statistik.

———. *National Higher Education Stategic Plan : Laying The Foundation Beyond 2020*. Putrajaya: Ministry of Higher Education Malaysia, 2007.

Njie, Baboucarr;, Soaib; Asimiran, and Baki Roselan. "Perceptions of International Students on Service Quality Delivery in a Malaysian Public University." *Quality Assurance in Education* 20, no. 2 (2012): 153–63. https://doi.org/http://dx.doi.org/10.1108/QAE-11-2012-0046.

Ong, Chee Hui; "Determinants of International Student's Satisfaction in UUM 2014." Universiti Utara Malaysia, 2014.

Osumi, Magdalena. "Japan Aims to up Number of International Students to 300,000 by 2027." The Japan Times, 2022. https://www.japantimes.co.jp/news/2022/06/23/national/international-students-increase-plan/.

Palacio, Asuncion Beerli;, Gonzalo Diaz; Meneses, and Pedro J. Perez; Perez. "The Configuration of the University Image and Its Relationship with the Satisfaction of Students." *Journal of Educational Administration* 40, no. 5 (2002): 486–505. https://doi.org/10.1108/09574090910954864.

Pallant, Julie. *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS*. 5 Edition. Berkshire: McGraw-Hill, 2013.

Parasuraman, Valarie A.; Zeithaml, and Leonard L. Berry. "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality." *Journal of Retailing* 64, no. 1 (1988): 5–6. https://doi.org/10.1016/S0148-2963(99)00084-3.

Paswan, Audhesh K., and Gopala Ganesh. "Higher Education Institutions: Satisfaction and Loyalty among International Students." *Journal of Marketing for Higher Education* 19, no. 1 (2009): 65–84. https://doi.org/10.1080/08841240902904869.

Patterson, Paul G., and Richard A. Spreng. *Modelling the Relationship between Perceived Value, Satisfaction and Repurchase Intentions in a Business-to-business, Services Context: An Empirical Examination. International Journal of Service Industry Management*. Vol. 8, 1997. https://doi.org/10.1108/0956 4239710189835.

Pereda, Maria, David Airey, and Marion Bennett. "Service Quality in Higher Education : The Experience of Overseas Students." *Journal of Hospitality, Leisure, Sport and Tourism Education* 6, no. 2 (2007): 55–67. https://doi.org/10.3794/johlste.62.160.

Pui Yee, Chong; Siew Yean, Tham, and Andrew Jia Yi; Kam. "Verifying International Students' Satisfaction Framework for the Development of MISS-Model in Malaysia." *Pertanika Journal of Social Sciences and Humanities* 26, no. January (2018): 1–18.

Pui Yee, Chong. "Internationalisation of Higher Education : Proposed Framework on International Students' Satisfaction." *Pertanika Journal of Social Sciences and Humanities* 23, no. Special Issue (2015): 73–90.

———. "Measuring International Students' Satisfaction : The Development of Survey Instrument." In *Global Conference On Business And Economics Research (GCER) 2017*, 112–19. Serdang: Universiti Putra Malaysia, 2017. https://doi.org/ISBN978-983-2408-56-7.

Rehman, Mohsin Abdur;, Erisher; Woyo, Joy Eghonghor; Akahome, and Muhammad Danial Sohail. "The Influence of Course Experience, Satisfaction, and Loyalty on Students' Word-of-Mouth and Re-Enrolment Intentions." *Journal of Marketing for Higher Education* 32, no. 1 (2020): 259–77. https://doi.org/10.10 80/08841241.2020.1852469.

Sánchez-Fernández, Raquel, and M. Ángeles Iniesta-Bonillo. "The Concept of Perceived Value: A Systematic Review of the Research." *Marketing Theory* 7, no. 4 (2007): 427–51. https://doi.org/10.1177/1470593107083165.

Santini, Fernando de Oliveira, Wagner Junior Ladeira, Claudio Hoffmann Sampaio, and Gustavo da Silva Costa. "Student Satisfaction in Higher Education: A Meta-Analytic Study." *Journal of Marketing for Higher Education* 27, no. 1 (2017): 1–18. https://doi.org/10.1080/08841241.2017.1311980.

Selnes, Fred; "An Examination of the Effect of Product Performance on Brand Reputation, Satisfaction and Loyalty." *European Journal of Marketing* 27, no. 9 (1993): 19–35. https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216.

Shahijan, Milad Kalantari, Sajad Rezaei, and Vinitha Padmanabhan Guptan. "Marketing Public and Private Higher Education Institutions: A Total Experiential Model of International Student's Satisfaction, Performance and Continues Intention." *International Review on Public and Nonprofit Marketing* 15, no. 2 (2018): 205–34. https://doi.org/10.1007/s12208-018-0198-2.

Sharif, Khurram, and Norizan Mohd Kassim. "Non-Academic Service Quality: Comparative Analysis of Students and Faculty as Users." *Journal of Marketing for Higher Education* 22, no. 1 (2012): 35–54. https://doi.org/10.1080/0884124 1.2012.705793.

Slethaug, Gordon, and Jesilin Manjula. "The Business of Education : Improving International Student Learning Experiences in Malaysia." *World Journal of Social Sciences* 2, no. 6 (2012): 179–99.

Soleimani, Ali Gholipour, and Hannaneh Einolahzadeh. "The Influence of Service Quality on Revisit Intention: The Mediating Role of WOM and Satisfaction (Case Study: Guilan Travel Agencies)." *Cogent Social Sciences* 4, no. 1 (2018): 1–14. https://doi.org/10.1080/23311886.2018.1560651.

Sultana, Seyama, and Abdul Momen. "International Student Satisfaction and Loyalty: A Comparative Study of Malaysian and Australian Higher Learning Institutions." *Journal of Intercultural Management* 9, no. 1 (2017): 101–42. https://doi.org/10.1515/joim-2017-0005.

Taiwan Ministry of Education. "International Students Come Together to Taiwan, Where the One-Hundred Thirty Thousand Overseas Student Mark Has Been Passed," 2021. https://english.moe.gov.tw/cp-117-25416-d8868-1.html.

Talebloo, Baharak;, and Roselan; Baki. "Challenges Faced by International Postgraduate Students during Their First Year of Studies." *International Journal of Humanities and Social Science* 3, no. 13 (2013): 138–45.

The Nation. "Academics Support Plan to Allow Foreign Universities in SEZs." The Nation, 2017. http://www.nationmultimedia.com/news/business/EconomyAnd Tourism/3031610.

THE World University Rankings. "Western Universities Mull Indonesian Branch Campuses." THE World University Rankings, January 28, 2019. https://www.timeshighereducation.com/news/western-universities-mull-indonesian-branch-campuses.

Thompson, Klein Julie; "Prospects for Transdisciplinarity." *Futures* 36, no. 4 (2004): 515–26. https://doi.org/10.1016/j.futures.2003.10.007.

Trullas, Irene, Pep Simo, Oriol R. Fusalba, Angels Fito, and Jose M. Sallan. "Student-Perceived Organizational Support and Perceived Employability in the Marketing of Higher Education." *Journal of Marketing for Higher Education* 28, no. 2 (2018): 266–81. https://doi.org/10.1080/08841241.2018.1488334.

Turkyilmaz, A, and C Ozkan. "Development of a Customer Satisfaction Index Model - An Application to the Turkish Mobile Phone Sector." *Industrial Management Data Systems* 107, no. 5–6 (2007): 672–87. https://doi.org/10.1108/02635570710750426.

WES. "Established and Emerging Hubs for International Education in Africa and the Middle East." WES Research and Advisory Services, 2015. https://wenr.wes.org/2015/06/established-emerging-hubs-international-education-africa-middle-east.

Yusliza, Mohd. Yusoff; "Self-Efficacy, Perceived Social Support, and Psychological Adjustment in International Undergraduate Students in a Public Higher Education Institution in Malaysia." *Journal of Studies in International Education* 16, no. 4 (2012): 353–71. https://doi.org/10.1177/1028315311408914.

Yusliza, Mohd.Yusoff;, and Chelliah Shankar. "Adjustment in International Students in Malaysian Public University." *International Journal of Innovation, Management and Technology,* 1, no. 3 (2010): 275–78.

Zeithaml, Valarie A. "Consumer Perceptions of Price, Quality and Value : A Means-End Model and Synthesis of Evidence." *Journal of Marketing* 52, no. 3 (1988): 2–22. https://doi.org/10.2307/1251446.

Ethical conventions

There are no individual, institutional, or sites mentioned in the manuscript. The first author conducted this research for her Ph.D. at Universiti Kebangsaan Malaysia (UKM). During the data collection in 2016, obtaining ethical committee approval for a study that does not involve testing or experimenting on human beings was not compulsory. However, all the necessary protocols of research ethics were observed, including:

1. Institutions' consent was obtained prior to data collection as permission was sought from participating institutions; attached is the file.
2. Participation from respondents was voluntary; they were informed of the objectives, duration, data confidentiality, and anonymity.
3. Researcher collected the data in person at respective campuses. Some institutions managed the survey through their International Office.
4. There is no risk to the safety of respondents as surveys were conducted on campuses.
5. No monetary incentives were given to respondents. However, they were given a packet of drinks and snacks when filling out the survey.
6. A report was given to each institution after the data analysis to comply with data transparency.

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Annexes

1) *Assessment of Measurement Model*

APPENDIX 1 : ASSESSMENT OF MEASUREMENT MODEL

Table 4

Results of Assessment for Internal Consistency and Convergent Validity for Internal Environment : Academic Construct

Factor	Item	Outer Loading	CA	CR	AVE	Convergent Validity (AVE>0.5)
A01 Course	A1.1_CourseRelevant	0.840	0.854	0.901	0.696	YES
	A1.2_CourseKnowledgeInterest	0.864				
	A1.3_CourseIntlStd	0.845				
	A1.4_CourseUpToDate	0.786				
A02Material	A2.1_MaterialHelpsToUnstd	0.814	0.841	0.888	0.613	YES
	A2.2_MaterialUsefulRelevent	0.823				
	A2.3_MaterialInteresting	0.807				
	A2.4_MaterialAccessible	0.718				
	A2.5_MaterialIntlStd	0.747				
A03Delivery	A3.1_DeliveryMixMethod	0.712	0.827	0.874	0.537	YES
	A3.2_Delivery2WayCom	0.754				
	A3.3_DeliveryInteresting	0.757				
	A3.4_DeliveryExplainExample	0.801				
	A3.5_DeliveryWorkStudOtherCountries	0.652				
	A3.6_DeliveryClassSizeAppropriate	0.711				
A04Assessment	A4.1_AssessmtContent	0.758	0.796	0.860	0.551	YES
	A4.2_AssessmtDiffMethods	0.689				
	A4.3_AssessmtWellScheduled	0.799				
	A4.4_AssessmtGradedFairly	0.757				
	A4.5_AssessmtFback	0.704				
A05AdmReq	A5.1_AdmissionHighReq	0.826	0.597	0.832	0.712	YES
	A5.2_AdmissionAllowsExempt	0.861				
A06Lecturer	A6.1_LecturersGoodTeachg	0.839	0.910	0.927	0.613	YES
	A6.2_LecturersQualifiedKnowledgeable	0.803				
	A6.3_LecturersMotivate	0.771				
	A6.4_Lecturers_GoodEng	0.768				

To be continued…

…continuation						
	A6.5_Lecturers_Reliable	0.764				
	A6.6_Lecturers_FairEql	0.794				
	A6.7_Lecturers_OpenMinded	0.727				
	A6.8_Lecturers_HelpfulKindCaring	0.795				
A07Enggmt	A7.1_Engagement_GrpWkMsian	0.755	0.695	0.814	0.522	YES
	A7.2_Engagement_HelpfmMsian	0.717				
	A7.3_Engagement_GrpWkIntlStud	0.718				
	A7.4_Engagement_HelpfmIntlStud	0.698				
A08Lab	A8.1_LabCompLab_UptoDate	0.878	0.873	0.913	0.725	YES
	A8.2_LabCompLab_Equipped	0.902				
	A8.3_LabCompLab_Capacity	0.809				
	A8.4_LabCompLab_OpHr	0.811				
A09Lib	A9.1_LibStaffKnowledgeable	0.791	0.821	0.882	0.652	YES
	A9.2_LibConduEnv	0.839				
	A9.3_LibAdeResource	0.834				
	A9.4_LibDownldOnline	0.763				
A10Internet	A10.1_InternetCon	0.867	0.846	0.907	0.763	YES
	A10.2_InternetAlwaysAvai	0.917				
	A10.3_InternetHighSpd	0.838				
A11Classroom	A11.1_ClassrmHallComf	0.925	0.831	0.922	0.855	YES
	A11.2_ClassrmHallEquipped	0.925				
A12AcaSupp	A12.1_AcdSppt_ExtraClass	0.884	0.680	0.862	0.757	YES
	A12.2_AcdSppt_InternshpPlacemt	0.856				

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 5 Comparison on the Assessment of Internal Consistency and Convergent Validity for Low Loading Item for Internal Environment : Academic Construct

Factor	Low Loading Item	Results if All Items are Kept		Results if Item is Deleted		Decision is Base on Improvement of Reliability Score AND/OR Content Validity
		CA	CR	CA	CR	
A03Delivery	A3.5 (0.653)	0.827	0.874	0.813	0.870	To Keep
A04Assessment	A4.2 (0.689)	0.796	0.860	0.772	0.854	To Keep
A06Lecturer	A6.9 (0.477)	0.901	0.920	0.910	0.927	To Delete
A07Enggmt	A7.4 (0.697)	0.695	0.814	0.645	0.813	To Keep

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source: Survey data

Table 6   Cross Loading of Factors for Internal Environment : Academic Construct

	A01Course	A02Material	A03Delivery	A04Assessmen	A05AdmReq	A06Lecturer	A07Engmnt	A08Lab	A09Lib	A10Internet	A11Classroom	A12AcaSupp
A1.1_CourseRelevant	**0.840**	0.554	0.511	0.533	0.290	0.437	0.399	0.257	0.291	0.231	0.275	0.199
A1.2_CourseKnowledgeInterest	**0.864**	0.632	0.567	0.577	0.399	0.484	0.440	0.271	0.347	0.335	0.287	0.223
A1.3_CourseIntStd	**0.845**	0.601	0.537	0.542	0.329	0.476	0.374	0.227	0.347	0.277	0.259	0.226
A1.4_CourseUpToDate	**0.786**	0.573	0.521	0.511	0.370	0.469	0.409	0.310	0.333	0.294	0.252	0.213
A2.1_MaterialHelpsToUnstd	0.599	**0.814**	0.570	0.541	0.388	0.492	0.447	0.297	0.328	0.344	0.287	0.232
A2.2_MaterialUsefulRelevant	0.616	**0.823**	0.591	0.545	0.421	0.472	0.434	0.266	0.297	0.310	0.301	0.212
A2.3_MaterialInteresting	0.531	**0.807**	0.521	0.459	0.449	0.519	0.420	0.256	0.300	0.288	0.282	0.321
A2.4_MaterialAccessible	0.446	**0.718**	0.460	0.441	0.264	0.398	0.417	0.299	0.378	0.316	0.289	0.188
A2.5_MaterialIntStd	0.572	**0.747**	0.538	0.523	0.394	0.456	0.373	0.266	0.352	0.319	0.314	0.269
A3.1_DeliveryMVMethod	0.487	0.535	**0.712**	0.467	0.369	0.506	0.377	0.306	0.289	0.335	0.260	0.244
A3.2_Delivery2WayCom	0.552	0.529	**0.754**	0.592	0.348	0.504	0.380	0.250	0.354	0.341	0.320	0.231
A3.3_DeliveryInteresting	0.442	0.532	**0.757**	0.525	0.378	0.563	0.439	0.333	0.333	0.316	0.309	0.333
A3.4_DeliveryExplainExample	0.543	0.580	**0.801**	0.592	0.347	0.532	0.466	0.358	0.332	0.325	0.305	0.257
A3.5_DeliveryWorkStudOtherCountries	0.371	0.347	**0.652**	0.397	0.226	0.369	0.398	0.310	0.288	0.262	0.256	0.226
A3.6_DeliveryClassSizeAppropriate	0.402	0.464	**0.711**	0.531	0.341	0.396	0.400	0.343	0.330	0.338	0.380	0.195
A4.1_AssessmtContent	0.576	0.516	0.583	**0.758**	0.379	0.504	0.414	0.331	0.329	0.350	0.325	0.133
A4.2_AssessmtDiffMethods	0.495	0.458	0.467	**0.689**	0.293	0.394	0.379	0.210	0.303	0.272	0.287	0.163
A4.3_AssessmtWellScheduled	0.525	0.526	0.563	**0.799**	0.419	0.533	0.404	0.330	0.396	0.412	0.363	0.286
A4.4_AssessmtGradedFairly	0.428	0.429	0.481	**0.757**	0.396	0.517	0.349	0.342	0.386	0.335	0.345	0.267
A4.5_AssessmtFback	0.382	0.451	0.538	**0.704**	0.436	0.498	0.404	0.343	0.372	0.332	0.286	0.368
A5.1_AdmissionHighReq	0.311	0.400	0.372	0.420	**0.826**	0.454	0.335	0.334	0.305	0.254	0.231	0.276
A5.2_AdmissionAllowExempt	0.390	0.431	0.405	0.458	**0.861**	0.476	0.388	0.328	0.332	0.366	0.347	0.284
A6.1_LecturersGoodTeachg	0.537	0.520	0.610	0.581	0.498	**0.839**	0.444	0.328	0.359	0.346	0.309	0.294
A6.2_LecturersQualifiedKnowledgeable	0.472	0.487	0.534	0.551	0.424	**0.803**	0.396	0.271	0.293	0.313	0.282	0.256
A6.3_LecturersMotivate	0.352	0.434	0.496	0.451	0.409	**0.771**	0.389	0.289	0.293	0.349	0.253	0.278
A6.4_LecturersGoodEng	0.340	0.399	0.474	0.441	0.435	**0.768**	0.320	0.269	0.326	0.339	0.311	0.339
A6.5_Lecturers_Reliable	0.476	0.506	0.536	0.523	0.479	**0.764**	0.364	0.317	0.323	0.350	0.344	0.268
A6.6_Lecturers_FairEd	0.440	0.466	0.470	0.526	0.441	**0.794**	0.364	0.300	0.340	0.347	0.232	0.282
A6.7_Lecturers_OpenMinded	0.410	0.432	0.449	0.508	0.361	**0.727**	0.406	0.286	0.371	0.325	0.306	0.305
A6.8_Lecturers_HelpfulKndCaring	0.457	0.493	0.541	0.548	0.394	**0.795**	0.458	0.343	0.394	0.385	0.324	0.303
A7.1_Engagement_GrpWkMalsian	0.331	0.400	0.449	0.399	0.355	0.474	**0.755**	0.299	0.295	0.323	0.261	0.341
A7.2_Engagement_HelpInMalsian	0.265	0.351	0.406	0.321	0.284	0.378	**0.717**	0.324	0.290	0.236	0.198	0.295
A7.3_Engagement_GrpWkIntlStud	0.378	0.362	0.355	0.355	0.295	0.373	**0.718**	0.295	0.325	0.214	0.205	0.205
A7.4_Engagement_HelpInIntlStud	0.434	0.427	0.400	0.406	0.302	0.297	**0.698**	0.271	0.326	0.299	0.156	0.156
A8.1_LabCompLab_UptoDate	0.357	0.372	0.399	0.401	0.373	0.373	0.344	**0.878**	0.520	0.365	0.438	0.298
A8.2_LabCompLab_Equipped	0.302	0.327	0.388	0.392	0.357	0.355	0.312	**0.902**	0.545	0.375	0.438	0.306
A8.3_LabCompLab_Capacity	0.161	0.181	0.295	0.286	0.287	0.252	0.313	**0.809**	0.495	0.265	0.371	0.296
A8.4_LabCompLab_OpHr	0.240	0.294	0.370	0.341	0.305	0.314	0.354	**0.811**	0.479	0.338	0.351	0.327
A9.1_LibStaffKnowledgeable	0.340	0.342	0.363	0.389	0.341	0.387	0.380	0.504	**0.791**	0.344	0.387	0.306
A9.2_LibCondEnv	0.328	0.345	0.365	0.393	0.295	0.368	0.375	0.548	**0.839**	0.405	0.383	0.319
A9.3_LibAdeResource	0.273	0.305	0.320	0.348	0.275	0.306	0.290	0.487	**0.834**	0.332	0.443	0.364
A9.4_LibDownldOnline	0.333	0.362	0.365	0.423	0.304	0.348	0.326	0.390	**0.763**	0.419	0.405	0.256
A10.1_InternetCon	0.385	0.381	0.429	0.474	0.326	0.410	0.374	0.330	0.433	**0.867**	0.430	0.256
A10.2_InternetAlwaysAval	0.314	0.370	0.397	0.410	0.323	0.391	0.330	0.351	0.395	**0.917**	0.438	0.302
A10.3_InternetHighSpd	0.181	0.297	0.309	0.312	0.324	0.348	0.269	0.370	0.393	**0.888**	0.432	0.344
A11.1_ClassrmHallSpd	0.295	0.333	0.397	0.390	0.335	0.335	0.341	0.455	0.467	0.480	**0.925**	0.407
A11.2_ClassrmHallEquipped	0.301	0.362	0.373	0.412	0.305	0.362	0.327	0.418	0.459	0.435	**0.925**	0.449
A12.1_AcdSppt_ExtraClass	0.260	0.314	0.326	0.319	0.308	0.352	0.311	0.284	0.347	0.263	0.403	**0.884**
A12.2_AcdSppt_InternshipPlacemt	0.187	0.225	0.262	0.250	0.267	0.290	0.294	0.344	0.396	0.333	0.403	**0.856**

Source: Survey data

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Table 7
Results of Fornell-Larker for Internal Environment : Academic Construct

Factor	A01Course	A02Material	A03Delivery	A04Assessmen	A05AdmReq	A06Lecturer	A07Enggmt	A08Lab	A09Lib	A10Internet	A11Classroom	A12AcaSupp
A01Course	**0.834**											
A02Material	0.709	**0.783**										
A03Delivery	0.641	0.686	**0.733**									
A04Assessment	0.649	0.643	0.711	**0.743**								
A05AdmReq	0.417	0.493	0.461	0.521	**0.844**							
A06Lecturer	0.560	0.599	0.659	0.662	0.551	**0.783**						
A07Enggmt	0.487	0.534	0.559	0.525	0.429	0.503	**0.723**					
A08Lab	0.320	0.353	0.430	0.422	0.391	0.385	0.388	**0.851**				
A09Lib	0.396	0.421	0.439	0.483	0.377	0.438	0.427	0.599	**0.807**			
A10Internet	0.343	0.403	0.437	0.461	0.371	0.440	0.374	0.399	0.466	**0.875**		
A11Classroom	0.322	0.376	0.416	0.434	0.346	0.377	0.361	0.472	0.500	0.495	**0.925**	
A12AcaSupp	0.258	0.312	0.340	0.329	0.332	0.370	0.348	0.359	0.425	0.340	0.463	**0.870**

Note : (1) Diagonal elements shaded and highlight oin bold represent the square root of AVE. Off diagonal elements are simple bivariate correaltions between ocnstructs.
(2) The full explanation of items is found in the survey questionnaire in Appendix 2.

Source: Survey data

Table 8   Results of Heterotrait-Monotrait Ratio (HTMT) for Internal Environment : Academic Construct

Factor	A01Course	A02Material	A03Delivery	A04Assessmen	A05AdmReq	A06Lecturer	A07Enggmt	A08Lab	A09Lib	A10Internet	A11Classroom	A12AcaSupp
A01Course	-											
A02Material	0.833	-										
A03Delivery	0.757	0.814	-									
A04Assessment	0.787	0.783	0.870	-								
A05AdmReq	0.580	0.691	0.650	0.751	-							
A06Lecturer	0.631	0.681	0.751	0.773	0.746	-						
A07Enggmt	0.632	0.698	0.736	0.706	0.661	0.625	-					
A08Lab	0.361	0.404	0.504	0.498	0.538	0.425	0.498	-				
A09Lib	0.470	0.508	0.531	0.595	0.537	0.505	0.564	0.706	-			
A10Internet	0.393	0.475	0.517	0.552	0.517	0.499	0.479	0.461	0.557	-		
A11Classroom	0.382	0.451	0.503	0.532	0.486	0.434	0.475	0.551	0.607	0.591	-	
A12AcaSupp	0.336	0.409	0.449	0.443	0.519	0.470	0.501	0.470	0.573	0.456	0.616	-

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source: Survey data

Table 9　Results of Assessment for Internal Consistency and Convergent Validity for Internal Environment : Non-Academic Construct

Factor	Item	Outer Loading	CA	CR	AVE	Convergent Validity (AVE>0.5)
B01_StudSupp	B1.1_StudAdmin_OpTime	0.686	0.930	0.942	0.673	YES
	B1.2_StudAdmin_StaffKnowledgeable	0.821				
	B1.3_StudAdmin_SolvProb	0.865				
	B1.4_StudAdmin_ReliableEfficient	0.881				
	B1.5_StudAdmin_GdComFback	0.854				
	B1.6_StudAdmin_GdEng	0.837				
	B1.7_StudAdmin_Care	0.854				
	B1.8_StudAdmin_PlaceCompt	0.745				
B02_Orttn	B2.1_OrttnAportPickUp	0.675	0.756	0.860	0.674	YES
	B2.2_OrttnLvgCampus	0.911				
	B2.3_OrttnLvgMsia	0.859				
B03_CAccom	B3.1_CampAccomAffordable	0.890	0.909	0.943	0.847	YES
	B3.2_CampAccomGdCondFac	0.933				
	B3.3_CampAccomLvgEnv	0.937				
B04_UniTrpttn	B4.1_UniTrpttnSrvcReliable	0.774	0.841	0.888	0.615	YES
	B4.2_UniTrpttnPlacesOutCamp	0.839				
	B4.3_UniInfraCycleWalk	0.799				
	B4.4_UniTrpttnOutCamp	0.823				
	B4.5_UniTrpttnParking	0.676				
B05_CFood	B5.1_FoodMeets	0.934	0.865	0.937	0.881	YES
	B5.2_FoodCourtComfEnv	0.944				
B06_CHCare	B6.1_HCareOnCampAvailable	0.907	0.922	0.951	0.866	YES
	B6.2_HCareOnCampCompetentDoc	0.949				
	B6.3_HCareOnCampRightTrmtMed	0.934				
B07_SecureSafe	B7.1_FeelSecureSafe	0.878	0.737	0.883	0.791	YES
	B7.2_BelongingsSafe	0.901				
B08_FinAssist	B8.1_FinAsstScholarship	0.884	0.914	0.939	0.795	YES
	B8.2_FinAsstDiscount	0.903				

…continuation

Construct	Item	Loading				
	B8.3_FinAsstStudyLoan	0.916				
	B8.4_FinAsstPTJob	0.862				
B09_SportRec	B9.1_SportsFacAvailable	0.909	0.913	0.945	0.852	YES
	B9.2_SportsFacGdCond	0.948				
	B9.3_LivelyCamp	0.912				
B10_ClubSoc	B10.1_ClubsSocieties	0.863	0.872	0.912	0.722	YES
	B10.2_ClubsSocietiesActiv	0.886				
	B10.3_IntlStudSociety	0.827				
	B10.4_IntlStudSocietyActiv	0.821				
B11_Career	B11.1_CareerGuidanceInfo	0.933	0.859	0.934	0.876	YES
	B11.2_CareerOppInfo	0.939				
B12_Care	B12.1_NeedsIntlStud	0.842	0.828	0.886	0.661	YES
	B12.2_CaresMe	0.844				
	B12.3_PICHelp	0.792				
	B12.4_Counseling	0.770				
B13_Diversity	B13.1_ManyIntlStuds	0.882	0.806	0.885	0.720	YES
	B13.2_IntlStudDiffCountries	0.852				
	B13.3_InterLocalIntlStud	0.811				
B14_Location	B14.1_NearPubTrpttn	0.812	0.838	0.892	0.674	YES
	B14.2_RoomRent	0.844				
	B14.3_NearLeisureAct	0.820				
	B14.4_CloseCity	0.805				
B15_Physical	B15.1_PhysicalCampEnv	0.924	0.831	0.922	0.856	YES
	B15.2_GoodBuildingInfra	0.926				

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 10   Comparison on the Assessment of Internal Consistency and Convergent Validity for Low Loading Item for Internal Environment : Non-Academic Construct

Factor	Low Loading Item	Results if All Items are Kept		Results if Item is Deleted		Decision is Based on Improvement of Reliability Score AND/OR Content Validity
		CA	CR	CA	CR	
B01_StudSupp	B1.1 (0.687)	0.930	0.942	0.931	0.944	To Keep
B02_Orttn	B2.1 (0.676)	0.756	0.860	0.809	0.913	To Keep
B04_UniTrpttn	B4.5 (0.676)	0.841	0.888	0.848	0.898	To Keep
B12_Care	B12.5 (0.549)	0.809	0.869	0.828	0.886	To Delete

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 11   Cross Loading of Factors for Internal Environment : Non-Academic Construct

Items	B01StafSupp	B02Offrn	B03CAccom	B04UniTrptm	B05CFood	B06_HCare	B07SecureSafe	B08EmAssist	B09SportRec	B10ClubSoc	B11Career	B12Care	B13Diversity	B14Location	B15Physical
B1.1_StudAdmn_OpTime	**0.686**	0.377	0.251	0.252	0.119	0.173	0.346	0.010	0.026	0.270	0.375	0.359	0.374	0.287	0.303
B1.2_StudAdmn_StaffKnowledgeable	**0.821**	0.372	0.310	0.281	0.090	0.244	0.391	0.119	0.076	0.245	0.287	0.435	0.290	0.277	0.289
B1.3_StudAdmn_SolvProb	**0.865**	0.403	0.346	0.305	0.132	0.313	0.407	0.168	0.148	0.302	0.295	0.481	0.308	0.323	0.312
B1.4_StudAdmn_ReliefEfficient	**0.881**	0.396	0.356	0.314	0.149	0.330	0.430	0.148	0.136	0.272	0.264	0.509	0.301	0.316	0.306
B1.5_StudAdmn_GdComBack	**0.854**	0.415	0.365	0.369	0.117	0.319	0.408	0.200	0.144	0.296	0.301	0.530	0.305	0.295	0.250
B1.6_StudAdmn_GdEng	**0.837**	0.400	0.341	0.353	0.138	0.293	0.435	0.187	0.147	0.288	0.271	0.493	0.294	0.325	0.291
B1.7_StudAdmn_Care	**0.854**	0.426	0.372	0.327	0.135	0.316	0.373	0.221	0.152	0.303	0.306	0.549	0.312	0.313	0.256
B1.8_StudAdmn_PlaceCompt	**0.745**	0.465	0.405	0.355	0.145	0.356	0.333	0.204	0.210	0.251	0.319	0.523	0.262	0.335	0.264
B2.1_OrttnApertPickUp	0.316	**0.675**	0.341	0.195	0.158	0.125	0.255	0.129	0.029	0.188	0.240	0.277	0.222	0.245	0.116
B2.2_Orttd_vgCampus	0.446	**0.911**	0.462	0.360	0.303	0.279	0.313	0.204	0.261	0.339	0.304	0.433	0.286	0.334	0.291
B2.3_Orttd_vgMria	0.445	**0.859**	0.478	0.436	0.292	0.252	0.289	0.261	0.266	0.273	0.272	0.367	0.241	0.278	0.267
B3.1_CampAccomAffordable	0.396	0.502	**0.890**	0.478	0.371	0.334	0.287	0.246	0.237	0.294	0.241	0.371	0.159	0.335	0.281
B3.2_CampAccomGdCondFac	0.382	0.457	**0.933**	0.490	0.425	0.397	0.292	0.309	0.290	0.250	0.195	0.390	0.161	0.283	0.297
B3.3_CampAccomd_vgEnv	0.385	0.492	**0.937**	0.524	0.380	0.385	0.294	0.454	0.313	0.233	0.188	0.386	0.332	0.332	0.310
B4.1_UniTrptnSvceReliable	0.332	0.382	0.479	**0.774**	0.374	0.313	0.238	0.384	0.375	0.332	0.252	0.354	0.197	0.359	0.246
B4.2_UniTrptnPlacesOutCamp	0.306	0.349	0.380	**0.839**	0.330	0.334	0.230	0.390	0.450	0.420	0.279	0.397	0.190	0.399	0.341
B4.3_UninfraCycleWalk	0.285	0.280	0.403	**0.799**	0.318	0.406	0.406	0.223	0.492	0.376	0.212	0.304	0.088	0.349	0.393
B4.4_UniTrptnOutCamp	0.250	0.299	0.427	**0.823**	0.425	0.288	0.233	0.445	0.392	0.338	0.219	0.315	0.155	0.312	0.347
B4.5_UniTrptnParking	0.357	0.321	0.430	**0.676**	0.335	0.377	0.322	0.418	0.343	0.318	0.206	0.335	0.176	0.345	0.396
B5.1_FoodMeets	0.161	0.293	0.419	0.395	**0.934**	0.338	0.288	0.389	0.432	0.300	0.192	0.304	0.206	0.312	0.300
B5.2_FoodCountComfEnv	0.135	0.300	0.382	0.456	**0.944**	0.387	0.337	0.424	0.501	0.347	0.245	0.324	0.248	0.344	0.382
B6.1_HCareOnCampAvailable	0.321	0.256	0.347	0.397	0.385	**0.907**	0.457	0.306	0.488	0.438	0.237	0.469	0.260	0.350	0.436
B6.2_HCareCmpCompetentDoc	0.330	0.253	0.390	0.416	0.360	**0.949**	0.447	0.361	0.454	0.472	0.313	0.472	0.354	0.344	0.387
B6.3_HCareOnCampRightTrmtMed	0.356	0.265	0.393	0.411	0.336	**0.934**	0.463	0.377	0.418	0.394	0.232	0.477	0.268	0.344	0.382
B7.1_FeelSecureSafe	0.380	0.278	0.234	0.253	0.278	0.399	**0.878**	0.129	0.267	0.449	0.326	0.419	0.339	0.391	0.381
B7.2_BelongingSafe	0.464	0.338	0.325	0.311	0.314	0.469	**0.901**	0.241	0.250	0.381	0.273	0.471	0.341	0.357	0.402
B8.1_FinAsstScholarship	0.133	0.286	0.403	0.470	0.387	0.360	0.222	**0.864**	0.455	0.259	0.147	0.307	0.101	0.255	0.272
B8.2_FinAsstDiscount	0.189	0.277	0.364	0.446	0.392	0.305	0.219	**0.903**	0.444	0.259	0.290	0.290	0.080	0.227	0.212
B8.3_FinAsstProtean	0.207	0.260	0.424	0.489	0.401	0.369	0.191	**0.916**	0.437	0.235	0.129	0.303	0.054	0.213	0.222
B8.4_FinAsstP1Job	0.174	0.257	0.408	0.470	0.366	0.298	0.121	**0.862**	0.431	0.241	0.110	0.300	0.092	0.283	0.227
B9.1_SportsFacAvailable	0.081	0.167	0.233	0.450	0.435	0.408	0.253	0.397	**0.909**	0.559	0.208	0.334	0.144	0.355	0.476
B9.2_SportsFacGdCond	0.154	0.224	0.316	0.507	0.472	0.480	0.268	0.480	**0.948**	0.569	0.220	0.379	0.128	0.398	0.479
B9.3_LiveSvCmp	0.204	0.259	0.324	0.492	0.470	0.456	0.281	0.467	**0.912**	0.575	0.254	0.409	0.233	0.406	0.504
B10.1_ClubsSocieties	0.312	0.283	0.239	0.429	0.273	0.426	0.410	0.480	0.538	**0.863**	0.384	0.461	0.316	0.359	0.463
B10.2_ClubsSocietiesActiv	0.333	0.295	0.299	0.385	0.319	0.469	0.431	0.261	0.558	**0.886**	0.376	0.515	0.384	0.394	0.490
B10.3_IntStudSociety	0.207	0.247	0.153	0.318	0.269	0.259	0.370	0.176	0.495	**0.827**	0.387	0.359	0.355	0.416	0.396
B10.4_IntStudSocietyActiv	0.288	0.304	0.248	0.385	0.311	0.328	0.364	0.255	0.496	**0.821**	0.358	0.427	0.351	0.434	0.429
B11.1_CareerGuidanceInfo	0.332	0.282	0.192	0.261	0.222	0.215	0.327	0.070	0.233	0.430	**0.933**	0.485	0.396	0.261	0.384
B11.2_CareerOptInfo	0.352	0.338	0.229	0.299	0.216	0.242	0.301	0.169	0.230	0.398	**0.939**	0.503	0.354	0.236	0.351
B11.3_NeedInfoBud	0.355	0.373	0.387	0.387	0.220	0.448	0.449	0.213	0.239	0.426	0.476	**0.842**	0.456	0.429	0.399
B12.2_CaresMe	0.522	0.389	0.385	0.338	0.230	0.434	0.413	0.286	0.251	0.354	0.398	**0.844**	0.436	0.335	0.391
B12.3_PICHelp	0.437	0.378	0.334	0.461	0.400	0.378	0.372	0.387	0.467	0.428	0.372	**0.792**	0.335	0.444	0.379
B12.4_Counseling	0.417	0.299	0.238	0.317	0.230	0.390	0.393	0.199	0.364	0.496	0.473	**0.770**	0.451	0.367	0.437
B13.1_ManyIntStuds	0.325	0.259	0.133	0.118	0.209	0.242	0.373	0.387	0.139	0.338	0.313	0.395	**0.882**	0.403	0.325
B13.2_IntStudDiffCountries	0.285	0.223	0.091	0.133	0.175	0.195	0.314	0.040	0.020	0.328	0.270	0.358	**0.852**	0.440	0.313
B13.3_IneerLocalIntStud	0.326	0.283	0.205	0.259	0.227	0.272	0.288	0.156	0.146	0.379	0.418	0.535	**0.811**	0.316	0.353
B14.1_NearPublTrptm	0.309	0.325	0.342	0.439	0.349	0.313	0.338	0.286	0.178	0.360	0.195	0.381	0.362	**0.812**	0.356
B14.2_RoomRent	0.280	0.278	0.261	0.395	0.322	0.318	0.327	0.228	0.404	0.422	0.217	0.408	0.372	**0.844**	0.428
B14.3_NearLesureAct	0.284	0.234	0.254	0.344	0.293	0.311	0.373	0.229	0.374	0.406	0.250	0.382	0.342	**0.820**	0.407
B14.4_CloseCity	0.367	0.309	0.270	0.300	0.177	0.288	0.336	0.153	0.252	0.353	0.208	0.427	0.406	**0.805**	0.387
B15.1_PhysicalCampEnv	0.326	0.263	0.287	0.390	0.322	0.395	0.416	0.229	0.463	0.496	0.465	0.465	0.387	0.459	**0.924**
B15.2_GoodBuildingInfra	0.312	0.268	0.309	0.425	0.353	0.404	0.399	0.276	0.512	0.476	0.352	0.448	0.339	0.430	**0.926**

Note : The full explanation of items are found in the survey questionnaire in Appendix 2

Source : Survey data

Table 12   Results of Fornell-Larker for Internal Environment : Non-Academic Construct

Factor	B01Stud Supp	B02Ortn	B03CAccom	B04Uni Trpttn	B05CFood	B06CHCare	B07Secure Safe	B08Fin Assist	B09Sport Rec	B10Club Soc	B11Career	B12Care	B13Diversity	B14Location	B15Physical
B01StudSupp	**0.821**														
B02Ortn	0.496	**0.821**													
B03CAccom	0.421	0.526	**0.920**												
B04UniTrpttn	0.392	0.418	0.541	**0.784**											
B05CFood	0.157	0.316	0.426	0.454	**0.939**										
B06CHCare	0.361	0.277	0.405	0.439	0.387	**0.930**									
B07SecureSafe	0.476	0.347	0.316	0.318	0.334	0.490	**0.890**								
B08FinAssist	0.197	0.303	0.449	0.526	0.434	0.374	0.211	**0.892**							
B09SportRec	0.162	0.237	0.318	0.525	0.498	0.487	0.290	0.487	**0.923**						
B10ClubSoc	0.340	0.333	0.281	0.457	0.345	0.443	0.464	0.279	0.615	**0.850**					
B11Career	0.366	0.331	0.226	0.299	0.234	0.244	0.335	0.129	0.248	0.442	**0.936**				
B12Care	0.595	0.444	0.415	0.437	0.334	0.508	0.501	0.336	0.407	0.523	0.528	**0.813**			
B13Diversity	0.370	0.304	0.174	0.206	0.243	0.283	0.382	0.091	0.184	0.414	0.400	0.515	**0.849**		
B14Location	0.377	0.349	0.344	0.452	0.350	0.375	0.420	0.274	0.420	0.469	0.265	0.486	0.451	**0.821**	
B15physical	0.345	0.287	0.322	0.440	0.365	0.432	0.440	0.262	0.527	0.525	0.392	0.493	0.392	0.481	**0.925**

Note : (1) Diagonal elements shaded and highlight oin bold represent the square root of AVE. Off diagonal elements are simple bivariate correalltions between ocnstructs.

(2) The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 13   Results of Heterotrait-Monotrait Ratio (HTMT) for Internal Environment : Non-Academic Construct

Factor	B01Stud Supp	B02Orttn	B03CAccom	B04Uni Trptn	B05CFood	B06CHCare	B07Secure Safe	B08Fin Assist	B09Sport Rec	B10Club Soc	B11Career	B12Care	B13Diversity	B14Location	B15Physical
B01StudSupp	-														
B02Orttn	0.586	-													
B03CAccom	0.456	0.629	-												
B04UniTrptn	0.441	0.505	0.619	-											
B05CFood	0.175	0.378	0.481	0.532	-										
B06CHCare	0.386	0.319	0.442	0.499	0.433	-									
B07SecureSafe	0.574	0.464	0.383	0.403	0.415	0.592	-								
B08FinAssist	0.211	0.350	0.491	0.601	0.487	0.407	0.253	-							
B09SportRec	0.168	0.257	0.346	0.597	0.558	0.529	0.354	0.531	-						
B10ClubSoc	0.373	0.400	0.311	0.529	0.396	0.486	0.580	0.309	0.688	-					
B11Career	0.413	0.411	0.255	0.351	0.270	0.274	0.424	0.143	0.278	0.512	-				
B12Care	0.675	0.552	0.477	0.521	0.392	0.581	0.640	0.384	0.465	0.612	0.627	-			
B13Diversity	0.429	0.386	0.197	0.242	0.286	0.323	0.497	0.108	0.210	0.490	0.473	0.621	-		
B14Location	0.428	0.437	0.394	0.535	0.408	0.427	0.536	0.312	0.476	0.551	0.313	0.583	0.554	-	
B15Physical	0.395	0.345	0.370	0.527	0.429	0.493	0.562	0.300	0.604	0.614	0.465	0.596	0.475	0.576	-

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 14   Comparison on the Assessment of Internal Consistency and Convergent Validity for Low Loading Item for External Environment Construct

Factor	Low Loading Item	Results if All Items are Kept		Results if Item is Deleted		Decision is Based on Improvement of Reliability Score AND/OR Content Validity
		CA	CR	CA	CR	
C01_SocialSupp	C1.1 (0.672)	0.779	0.846	0.783	0.860	To Keep
C02_Community	C2.1 (0.678)	0.881	0.910	0.879	0.912	To Keep
C11_Attraction	C11.4 (0.624)	0.885	0.914	0.901	0.927	To Delete
C12_Government & Legal Framework	C12.1 (0.691) C12.2 (0.688)	0.841	0.878	0.870	0.920	To Keep

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 15

Results of Assessment for Internal Consistency and Convergent Validity for External Environment Construct

Factor	Item	Outer Loading	CA	CR	AVE	Convergent Validity (AVE>0.5)
C01a_SuppInMsia	C1.1_FamilyRelatives	0.672	0.764	0.865	0.685	YES
	C1.2_BefriendMsians	0.905				
	C1.3_SuppHelpMsians	0.886				
C01b_SuppIS	C1.4_BefriendIntlStudDiffCountries	0.891	0.779	0.872	0.696	YES
	C1.5_SuppHelpIntlStudDiffCountries	0.871				
	C1.6_SuppHelpFromSameCountry	0.732				
C02_Community	C2.1_MsianFriendsNotSameUni	0.679	0.881	0.910	0.629	YES
	C2.2_BefriendMsianNeighbour	0.822				
	C2.3_InvttnMsianNeighbour	0.820				
	C2.4_FriendlyCommunity	0.856				
	C2.5_HelpfulCommunity	0.784				
	C2.6_JoinCommunityAct	0.785				
C03_Safety	C3.1_FeelSafeInMsia	0.924	0.800	0.909	0.833	YES
	C3.2_BelongingsSafeInMsia	0.901				
C04_Discrimination	C4.1_WelcomedAcceptedMsians	0.861	0.820	0.893	0.736	YES
	C4.2_SameTreatmt	0.901				
	C4.3_SameOpp	0.808				
C05_LanguaCom	C5.1_CanTalkMsianFriends	0.792	0.869	0.905	0.656	YES
	C5.2_CanTalkToLect	0.806				
	C5.3_TalkToMsians	0.858				
	C5.4_NoLanguageBarrier	0.792				
	C5.5_TalkMsianEng	0.800				
C06_Culture	C6.1_KnowMsianCulture	0.872	0.748	0.857	0.669	YES
	C6.2_UnstdMultiEthnic	0.852				
	C6.3_SimilarCulture	0.721				
C07_Food	C7.1_FindFood	0.900	0.741	0.885	0.794	YES
	C7.2_FindSpices	0.883				

Construct	Item	Loading				
…continuation						
C08_PubTrpttn	C8.1_PubTrpttnAva	0.831	0.868	0.910	0.716	YES
	C8.2_PubTrpttnReliable	0.885				
	C8.3_PubTrpttnComfClean	0.860				
	C8.4_PubTrpttnFHH	0.808				
C09_HCare	C9.1_HCareInsurance	0.806	0.830	0.899	0.748	YES
	C9.2_HCareOffCampCompetentDoc	0.902				
	C9.3_HCareOffCampRightMed	0.882				
C10_Location	C10.1_MsiaNearCountry	0.934	0.932	0.956	0.880	YES
	C10.2_GoHomeFreq	0.952				
	C10.3_FamilyVisitFreq	0.928				
C11_Attraction	C11.1_ManyPlacesVisit	0.853	0.901	0.927	0.717	YES
	C11.2_Greenery	0.860				
	C11.3_CelebFest	0.828				
	C11.5_PlacesWorship	0.830				
	C11.6_PracticeReligionMsia	0.864				
C12a_Visa	C12.1_GdG2G	0.690	0.825	0.878	0.593	YES
	C12.2_StudyVisa	0.687				
	C12.3_TimeProcessVisa	0.831				
	C12.4_StaffProcessVisaGood	0.837				
	C12.5_VisaCostReasonable	0.789				
C12b_WorkMsia	C12.6_CanWorkStudy	0.849	0.825	0.895	0.740	YES
	C12.7_CanWorkAfterGrad	0.862				
	C12.8_CanMigrateMsia	0.869				
C13_InternOpp	C13.1_InternshipMsia	0.939	0.858	0.934	0.876	YES
	C13.2_EasyInternshipPlacemt	0.932				

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 16   Cross Loading of Factors for External Environment Construct

Items	C01IaSupInMsia IS	C01ISup	C02Community	C03Safety	C04Discrt	C05Langua	C06Culture	C07Food	C08PubTrptn	C09HCare	C10Location	C11Attraction	C12aVisa	C12bWork Msia	C13Item Opp
C1.1_FamilyRelatives	**0.672**	0.256	0.308	0.243	0.287	0.262	0.276	0.278	0.208	0.092	0.221	0.211	0.233	0.237	0.163
C1.2_BefriendMsians	**0.905**	0.388	0.544	0.307	0.481	0.474	0.356	0.353	0.361	0.268	0.170	0.371	0.298	0.298	0.242
C1.3_SupHelpMsians	**0.886**	0.328	0.563	0.280	0.489	0.400	0.361	0.343	0.330	0.281	0.170	0.339	0.298	0.298	0.235
C1.4_BefreandInfStdDiffCountries	0.410	**0.891**	0.228	0.298	0.212	0.468	0.377	0.351	0.450	0.025	0.487	0.352	0.099	0.099	0.184
C1.5_SupHelpInfStdDiffCountries	0.369	**0.871**	0.251	0.277	0.231	0.428	0.372	0.344	0.412	0.064	0.418	0.331	0.113	0.113	0.206
C1.6_SuppHelpFromSameCountry	0.188	**0.732**	0.177	0.197	0.147	0.409	0.253	0.301	0.338	0.070	0.407	0.295	0.122	0.114	0.149
C2.1_MsianFriendsNotSameUni	0.456	0.192	**0.679**	0.331	0.481	0.250	0.347	0.246	0.254	0.264	0.103	0.311	0.245	0.394	0.256
C2.2_BefriendMsianNeighbour	0.475	0.122	**0.822**	0.412	0.533	0.188	0.336	0.252	0.228	0.303	0.052	0.299	0.299	0.470	0.265
C2.3_InvtMsianNeighbour	0.517	0.254	**0.820**	0.400	0.563	0.315	0.389	0.302	0.340	0.257	0.201	0.339	0.339	0.354	0.334
C2.4_FriendsCommunity	0.501	0.259	**0.856**	0.373	0.539	0.377	0.369	0.302	0.329	0.225	0.222	0.380	0.344	0.354	0.302
C2.5_HelpfulCommunity	0.419	0.236	**0.784**	0.410	0.513	0.239	0.303	0.240	0.322	0.162	0.154	0.282	0.369	0.344	0.270
C2.6_JoinCommunityAct	0.339	0.336	**0.785**	0.924	0.436	0.306	0.254	0.297	0.329	0.101	0.289	0.369	0.373	0.373	0.226
C3.1_FeelSafeInMsia	0.268	0.392	0.392	**0.924**	0.538	0.197	0.218	0.211	0.358	0.126	0.119	0.320	0.320	0.329	0.230
C3.2_BelongingsSafeInMsia	0.492	0.228	0.438	**0.901**	0.473	0.441	0.347	0.310	0.324	0.246	0.230	0.417	0.417	0.297	0.218
C4.1_WelcomedAcceptedMsians	0.433	0.276	0.585	0.457	**0.861**	0.297	0.350	0.307	0.288	0.334	0.111	0.391	0.307	0.294	0.226
C4.2_SameTreatmt	0.399	0.178	0.523	0.504	**0.901**	0.191	0.322	0.183	0.211	0.384	0.040	0.370	0.391	0.307	0.206
C4.3_SameOpp	0.470	0.145	0.345	0.431	**0.808**	0.792	0.372	0.366	0.267	0.142	0.374	0.370	0.428	0.428	0.327
C5.1_CanTalkMsianFriends	0.379	0.376	0.345	0.170	0.336	**0.806**	0.437	0.430	0.429	0.319	0.500	0.454	0.171	0.171	0.193
C5.2_CanTalkToLect	0.379	0.466	0.299	0.223	0.259	**0.806**	0.469	0.410	0.415	0.125	0.453	0.454	0.188	0.188	0.205
C5.3_TalkToMsians	0.346	0.470	0.276	0.269	0.320	**0.858**	0.435	0.403	0.401	0.130	0.453	0.438	0.231	0.231	0.205
C5.4_NoLanguageBarrier	0.375	0.375	0.252	0.252	0.321	**0.792**	0.358	0.358	0.350	0.194	0.344	0.408	0.240	0.240	0.202
C5.5_TalkMsianEng	0.326	0.416	0.248	0.212	0.273	**0.800**	0.464	0.344	0.356	0.182	0.391	0.363	0.203	0.203	0.170
C6.1_KnowMsianCulture	0.326	0.359	0.367	0.256	0.302	0.491	**0.872**	0.468	0.442	0.339	0.222	0.405	0.358	0.302	0.280
C6.2_UnsdMultiEthnic	0.309	0.416	0.300	0.171	0.250	0.501	**0.852**	0.483	0.450	0.395	0.179	0.461	0.377	0.242	0.247
C6.3_SimilarCulture	0.356	0.208	0.413	0.209	0.434	0.317	**0.721**	0.437	0.383	0.321	0.482	0.151	0.393	0.324	0.313
C7.1_FindFood	0.384	0.292	0.292	0.230	0.273	0.459	0.547	**0.900**	0.433	0.421	0.151	0.371	0.371	0.324	0.239
C7.2_FindSpices	0.317	0.308	0.303	0.273	0.293	0.381	0.460	**0.883**	0.253	0.211	0.375	0.365	0.228	0.228	0.297
C8.1_PubTrptnAva	0.270	0.460	0.258	0.253	0.227	0.464	0.477	0.463	**0.831**	0.446	0.115	0.519	0.365	0.245	0.239
C8.2_PubTrptnReliable	0.245	0.384	0.297	0.361	0.275	0.363	0.425	0.358	**0.885**	0.463	0.111	0.438	0.354	0.289	0.235
C8.3_PubTrptnComfClean	0.205	0.324	0.251	0.387	0.257	0.338	0.404	0.333	**0.860**	0.422	0.055	0.420	0.307	0.187	0.208
C8.4_PubTrptnRltHH	0.269	0.271	0.392	0.403	0.394	0.343	0.453	0.317	**0.808**	0.457	0.305	0.425	0.364	0.254	0.232
C9.1_HCareInsurance	0.311	0.472	0.248	0.182	0.206	0.449	0.392	0.405	0.461	**0.806**	0.121	0.425	0.429	0.197	0.195
C9.2_HCareOfRCampCompetentDoc	0.290	0.392	0.317	0.354	0.302	0.383	0.343	0.377	0.461	**0.902**	0.152	0.368	0.411	0.293	0.272
C9.3_HCareOfRCampRghtMed	0.359	0.390	0.371	0.323	0.359	0.370	0.384	0.380	0.490	**0.882**	0.182	0.325	0.405	0.285	0.239
C10.1_MsiaNearCountry	0.274	0.044	0.265	0.078	0.320	0.206	0.314	0.208	0.108	0.188	**0.934**	0.165	0.310	0.259	
C10.2_GoHomeFreq	0.249	0.071	0.274	0.124	0.354	0.194	0.334	0.242	0.151	0.165	**0.952**	-0.025	0.180	0.287	0.266
C10.3_FamilyVisitFreq	0.240	0.056	0.300	0.143	0.359	0.133	0.341	0.235	0.154	0.143	**0.928**	-0.040	0.161	0.327	0.327
C11.1_ManyPlacesVisit	0.194	0.439	0.119	0.181	0.125	0.453	0.341	0.355	0.424	0.359	-0.033	**0.853**	0.391	0.081	0.133
C11.2_Greenery	0.166	0.461	0.147	0.213	0.132	0.416	0.356	0.358	0.441	0.369	-0.090	**0.860**	0.404	0.111	0.122
C11.2_Greenery	0.166	0.461	0.147	0.213	0.132	0.416	0.356	0.385	0.441	0.369	-0.090	**0.860**	0.404	0.111	0.122
C11.3_CelebFest	0.232	0.434	0.203	0.208	0.194	0.435	0.385	0.349	0.398	0.366	-0.008	**0.828**	0.402	0.210	0.185
C11.4_StaffProcessVisit	0.318	0.255	0.148	0.098	0.098	0.384	0.332	0.332	0.346	0.332	-0.006	**0.830**	0.303	0.162	0.279
C11.6_PracticeReligenMsia	0.197	0.469	0.158	0.207	0.112	0.465	0.371	0.409	0.441	0.389	-0.012	**0.864**	0.440	0.137	0.164
C12.1_GdG2G	0.243	0.338	0.231	0.200	0.220	0.414	0.369	0.298	0.292	0.346	0.074	0.473	**0.690**	0.298	0.260
C12.2_StudyVisa	0.259	0.463	0.179	0.166	0.182	0.489	0.384	0.371	0.321	0.395	0.045	0.564	**0.687**	0.180	0.193
C12.3_TimeProcessVisa	0.321	0.238	0.333	0.336	0.370	0.345	0.267	0.332	0.316	0.369	0.200	0.309	**0.831**	0.381	0.288
C12.5_VeasCostReasonable	0.318	0.255	0.348	0.373	0.391	0.345	0.286	0.285	0.331	0.375	0.128	0.294	**0.837**	0.402	0.279
C12.6_CanWorkStudy	0.337	0.220	0.412	0.369	0.470	0.349	0.317	0.283	0.331	0.359	0.234	0.220	**0.789**	0.468	0.302
C12.7_CanWorkAfterGrad	0.321	0.054	0.231	0.279	0.401	0.176	0.323	0.298	0.203	0.219	0.374	0.056	0.399	**0.849**	0.385
C12.8_CanMigrateMsia	0.294	0.186	0.395	0.281	0.288	0.295	0.326	0.371	0.290	0.320	0.210	0.232	0.410	**0.862**	0.413
C13.1_InternlshipMsia	0.255	0.083	0.385	0.319	0.336	0.179	0.181	0.250	0.227	0.272	0.104	0.358	**0.869**	0.475	
C13.2_EasyToGetInternlshipPlacemt	0.252	0.226	0.300	0.210	0.225	0.330	0.287	0.275	0.258	0.235	0.354	0.451	**0.939**		
	0.236	0.178	0.352	0.251	0.321	0.194	0.308	0.274	0.232	0.253	0.334	0.100	0.290	0.471	**0.932**

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

310

Table 17   Results of Fornell-Larker for External Environment Construct

Factor	C01aSupplnMsia	C01bSupplS	C02Community	C03Safety	C04Discri	C05Langua	C06Culture	C07Food	C08PubTrpttn	C09HCare	C10Location	C11Attraction	C12aVisa	C12bWorkMsia	C13InternOpp
C01aSupplnMsia	**0.828**														
C01bSupplS	0.396	**0.834**													
C02Community	0.585	0.264	**0.793**												
C03Safety	0.335	0.312	0.453	**0.912**											
C04Discri	0.518	0.239	0.630	0.530	**0.858**										
C05Langua	0.468	0.521	0.350	0.279	0.372	**0.810**									
C06Culture	0.403	0.405	0.437	0.260	0.397	0.538	**0.818**								
C07Food	0.394	0.377	0.334	0.281	0.317	0.473	0.567	**0.891**							
C08PubTrpttn	0.294	0.428	0.355	0.341	0.341	0.448	0.521	0.443	**0.846**						
C09HCare	0.371	0.482	0.359	0.333	0.336	0.462	0.431	0.447	0.530	**0.865**					
C10Location	0.271	0.061	0.298	0.123	0.367	0.190	0.351	0.243	0.147	0.176	**0.938**				
C11Attraction	0.237	0.524	0.184	0.230	0.157	0.512	0.422	0.430	0.499	0.429	-0.035	**0.847**			
C12aVisa	0.386	0.391	0.394	0.379	0.429	0.504	0.421	0.408	0.412	0.480	0.180	0.479	**0.770**		
C12bWorkMsia	0.337	0.129	0.464	0.340	0.395	0.256	0.370	0.253	0.290	0.300	0.328	0.157	0.453	**0.860**	
C13InternOpp	0.261	0.217	0.348	0.246	0.290	0.241	0.341	0.299	0.271	0.273	0.303	0.182	0.345	0.492	**0.936**

Note : (1) Diagonal elements shaded and highlight oin bold represent the square root of AVE. Off diagonal elements are simple bivariate correaltions between ocnstructs.

(2) The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 18   Results of Heterotrait-Monotrait Ratio (HTMT) for External Environment Construct

Factor	C01aSuplnMsia	C01bSuplIS	C02Community	C03Safety	C04Dscri	C05Langua	C06Culture	C07Food	C08PubTrpttn	C09HCare	C10Location	C11Attraction	C12aVisa	C12bWorkMsia	C13InternOpp
C01aSuplnMsia	-														
C01bSuplIS	0.497	-													
C02Community	0.696	0.314	-												
C03Safety	0.426	0.387	0.536	-											
C04Dscri	0.639	0.288	0.731	0.658	-										
C05Langua	0.565	0.633	0.397	0.329	0.428	-									
C06Culture	0.534	0.521	0.543	0.335	0.514	0.663	-								
C07Food	0.522	0.490	0.411	0.363	0.399	0.586	0.760	-							
C08PubTrpttn	0.367	0.515	0.402	0.497	0.401	0.511	0.645	0.547	-						
C09HCare	0.457	0.599	0.415	0.405	0.397	0.545	0.549	0.570	0.623	-					
C10Location	0.308	0.074	0.329	0.143	0.428	0.213	0.432	0.292	0.162	0.200	-				
C11Attraction	0.293	0.626	0.203	0.263	0.171	0.575	0.506	0.525	0.562	0.498	0.041	-			
C12aVisa	0.479	0.492	0.456	0.462	0.510	0.596	0.538	0.523	0.486	0.582	0.202	0.561	-		
C12bWorkMsia	0.424	0.158	0.545	0.421	0.491	0.297	0.476	0.320	0.338	0.357	0.379	0.174	0.545	-	
C13InternOpp	0.319	0.263	0.401	0.297	0.354	0.278	0.429	0.377	0.313	0.323	0.340	0.204	0.408	0.586	-

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 19   Results of Assessment for Internal Consistency and Convergent Validity for Image Construct

Factor	Item	Outer Loading	CA	CR	AVE	Convergent Validity (AVE>0.5)
D1_Brand	D1.1_GdNameMsia	0.839	0.908	0.931	0.731	YES
	D1.2_BestMsia	0.850				
	D1.3_QuaEdu	0.882				
	D1.4_BestProg	0.855				
	D1.5_ProudGrad	0.849				
D02_Recognition	D2.1_RecogHomeCountry	0.915	0.823	0.919	0.849	YES
	D2.2_RecogWorld	0.928				
D03_Ranking	D3.1_HiRankMsia	0.916	0.769	0.896	0.812	YES
	D3.2_HiRankWorld	0.886				

Source : Survey data

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Table 20   Cross Loading of Factors for Image Construct

Items	D01 Brand	D02 Recog	D03 Ranking
D1.1_GdNameMsia	**0.839**	0.560	0.560
D1.2_BestMsia	**0.850**	0.432	0.595
D1.3_QuaEdu	**0.882**	0.482	0.571
D1.4_BestProg	**0.855**	0.464	0.535
D1.5_ProudGrad	**0.849**	0.599	0.567
D2.1_RecogHomeCountry	0.521	**0.915**	0.496
D2.2_RecogWorld	0.573	**0.928**	0.584
D3.1_HiRankMsia	0.649	0.577	**0.916**
D3.2_HiRankWorld	0.536	0.476	**0.886**

Source : Survey data

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Table 21   Results of Fornell-Larker for Image Construct

Factor	D01_Brand	D02_Recog	D03_Ranking
D01_Brand	**0.855**		
D02_Recognition	0.595	**0.922**	
D03_Ranking	0.661	0.588	**0.901**

Note :
(1) Diagonal elements shaded and highlight oin bold represent the square root of AVE. Off diagonal elements are simple bivariate correaltions between ocnstructs.
(2) The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 22   Results of Heterotrait-Monotrait Ratio (HTMT) for Image Construct

Factor	D01_Brand	D02_Recog	D03_Ranking
D01_Brand	-		
D02_Recognition	0.685	-	
D03_Ranking	0.787	0.732	-

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 23   Results of Assessment for Internal Consistency and Convergent Validity for Perceived Value Construct

Factor	Item	Outer Loading	CA	CR	AVE	Convergent Validity (AVE>0.5)
E01Fee	E1.1_GdInvestmt	0.866	0.872	0.921	0.796	YES
	E1.2_ReasonableFee	0.914				
	E1.3_ValueforMoney	0.896				
E02CoLiv	E2.1_LvgStudyCost	0.845	0.864	0.908	0.711	YES
	E2.2_FoodCost	0.857				
	E2.3_AccomCost	0.852				
	E2.4_TrspttnCost	0.818				
E03OVG	E3.1_LvgExp	0.848	0.886	0.921	0.745	YES
	E3.2_EnjoyQLife	0.876				
	E3.3_KnowMsia	0.864				
	E3.4_IntlExpo	0.865				

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 24   Cross Loading of Factors for Perceived Value Construct

Items	E01Fee	E02CoLiv	E03OVG
E1.1_GdInvestmt	**0.866**	0.532	0.491
E1.2_ReasonableFee	**0.914**	0.529	0.433
E1.3_ValueforMoney	**0.896**	0.529	0.435
E2.1_LvgStudyCost	0.519	**0.845**	0.501
E2.2_FoodCost	0.452	**0.857**	0.475
E2.3_AccomCost	0.514	**0.852**	0.451
E2.4_TrspttnCost	0.516	**0.818**	0.489
E3.1_LvgExp	0.478	0.515	**0.848**
E3.2_EnjoyQLife	0.459	0.504	**0.876**
E3.3_KnowMsia	0.440	0.494	**0.864**
E3.4_IntlExpo	0.371	0.447	**0.865**

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 25   Results of Fornell-Larker for Perceived Value Construct

Factor	E01Fee	E02CoLiv	E03OVG
E01_Fee	**0.892**		
E02_CoLiv	0.594	**0.843**	
E03_OVG	0.508	0.569	**0.863**

(2) The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Note : (1) Diagonal elements shaded and highlight oin bold represent the square root of AVE. Off diagonal elements are simple bivariate correaltions between ocnstructs.

316

Table 26 Results of Heterotrait-Monotrait Ratio (HTMT) for Perceived Value Construct

Factor	E01Fee	E02CoLiv	E03OVG
E01_Fee	-		
E02_CoLiv	0.684	-	
E03_OVG	0.576	0.648	-

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 27   Table of Comparison on the Assessment of Internal Consistency and Convergent Validity for Low Loading Item for Post Behavioural Construct

Factor	Low Loading Item	Results if All Items are Kept		Results if Item is Deleted		Decision is Based on Improvement of Reliability Score AND/OR Content Validity
		CA	CR	CA	CR	
F02_Loyalty	F1.4 (0.645) F2.3 (0.638)	0.783	0.861	0.798	0.882	To Delete

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 28   Results of Assessment for Internal Consistency and Convergent Validity for Post Behavioural Construct

Factor	Item	Outer Loading	CA	CR	AVE	Convergent Validity (AVE≥0.5)
F01WoM	F1.1_TalkAbtMyUni	0.862	0.861	0.906	0.709	YES
	F1.2_InforToFriends	0.879				
	F1.3_RecomUni	0.867				
	F2.2_RecomMsia	0.753				
F02Loyalty	F1.5_PGStudy	0.864	0.798	0.882	0.713	YES
	F1.6_JAlumni	0.828				
	F2.1_ChooseMsia	0.840				

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 29   Cross Loading of Factors for Post Behavioural Construct

Items	F01WoM	F02Loyalty
F1.1_TalkAbtMyUni	**0.862**	0.470
F1.2_InforToFriends	**0.879**	0.443
F1.3_RecomUni	**0.867**	0.553
F2.2_RecomMsia	**0.753**	0.591
F1.5_PGStudy	0.516	**0.864**
F1.6_JAlumni	0.531	**0.828**
F2.1_ChooseMsia	0.505	**0.840**

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 30   Results of Fornell-Larker for Post Behavioural Construct

Factor	F01WoM	F02Loyalty
F01_WoM	**0.842**	
F02_Loyalty	0.613	**0.844**

Note :
(1) Diagonal elements shaded and highlight oin bold represent the square root of AVE. Off diagonalmelements are simple bivariate correaltions between ocnstructs.
(2) The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

Table 31   Results of Heterotrait-Monotrait Ratio (HTMT) for Post Behavioural Construct

Factor	F01WoM	F02Loyalty
F01_WoM	-	
F02_Loyalty	**0.738**	-

Note : The full explanation of items is found in the survey questionnaire in Appendix 2.

Source : Survey data

2) *Survey Questionnaire*

Greetings!

Thank you for participating in this questionnaire.

I am Chong Pui Yee, a PhD student at the Institute of Malaysian and International Studies (IKMAS), Universiti Kebangsaan Malaysia (UKM). The title of my research is "Internationalization of Higher Education : Factors Influencing International Students' Satisfaction in Malaysia".

The objective of this questionnaire is to collect data to (1) identify the level of satisfaction and (2) understand factors that influence satisfaction of international students studying at selected private universities in Malaysia.

This questionnaire is intended for **international students** who are pursuing **degree programme** and in their **second year and above**. You are invited to fill in this survey, which will take between 20-30 minutes to complete.

Please be assured that your responses will be treated with utmost confidentiality and the results will be consolidated with other respondents.

Please feel free to contact us if you need any clarification.

Once again, thank you for your cooperation and participation in this research.

Ph.D Candidate:
Chong Pui Yee
Student ID Number: P55673
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Supervisors:
1. Prof. Tham Siew Yean, Adjunct Professor
2. Dr. Andrew Kam Jia Yi, Fellow
Institute of Malaysian and International Studies (IKMAS)
UNIVERSITI KEBANGSAAN MALAYSIA
Bangi, Selangor, Malaysia

PART 1 : RESPONDENT'S PROFILE (Please fill-in or tick the appropriate box).

1.1. Age : _____   1.2. Gender/Sex : ☐ Male   ☐ Female

1.3. Country of Origin : _____   1.4. Marital Status: ☐ Single   ☐ Married

                                                                        ☐ Others _____

1.5. Religion : ☐ Buddhist ☐ Christian ☐ Hindu ☐ Muslim ☐ None

                        ☐ Others, please specify_____

1.6. How long have you been in Malaysia?

☐ more than a year but less than 2 years
☐ 2 years
☐ 3 years
☐ 4 years
☐ 5 years and more

1.7. Language used in your home country when you were at school :

☐ Arabic   ☐ Chinese ☐ English ☐ French ☐ Hindi ☐ Indonesia ☐ Persian

☐ Others, please specify _____

1.8. Which university are you currently enrolled in? _____

1.9. What is the field of your study?

☐ **Social Sciences, Business & Law**
(Business Administration, Business Management, Business Studies, Law, Accounting, Finance, Economics, Psychology, Sociology, Mass Communication, Sports Health & Fitness & other related disciplines)

☐ **Arts & Humanities**
(Language & Linguistics, Religion Studies, Arts, Design, Music, Fashion, Performing Arts, History and other related disciplines)

☐ **Education**
(Early Child Care Education, Primary & Secondary Education, TESL, Education Management and other related disciplines)

☐ **Science, Mathematics & Computer**
(Chemistry, Physics, Biology, Geology, Actuarial Science, Statistics, Mathematics, Computer Science, Information Technology, Software Engineering and other related disciplines)

☐ **Engineering, Manufacturing & Construction**
(Civil, Mechanical, Electrical, Electronics, Chemical, Power, Quantity Surveying, Architecture, Interior Architecture, Aviation, maritime, Industrial Design and other related disciplines)

☐ **Agriculture & Veterinary**
(Crop Science, Soil Science, Animal Science, Forestry and other related disciplines)

☐ **Health & Welfare**
(Medicine, Dentistry, Pharmacy, Medical Biotech, Optometry, Physiotherapy, Food Science, Medical Science, Nutrition and other related disciplines)

☐ **Services**
(Hospitality, Tourism, Culinary, Event Management and other related disciplines)

☐ **Others**, please specify :_____

1.10. How many years have you been enrolled in your present university?

more than a year but less than 2 years	4 years
2 years	5 years and more
3 years	

1.11. Which year of your degree program are you in?

second year	fourth year
third year	fifth year

1.12. Who pay for your study (tick the one that pay the most)?

- self-funded (pay by myself)
- parents
- husband/wife
- other family members
- scholarship or other award
- loan
- government
- employer
- others (please specify) _____

1.13. What is your current CGPA?

☐ below 2.0   ☐ 2.0 – 2.99   ☐ 3.0-3.59   ☐ 3.60-4.0

2.0 Before you proceed to **PART 2**, please rate your **Overall Satisfaction** during your study and living in Malaysia.

- Extremely satisfied
- Very Satisfied
- Satisfied
- Dissatisfied
- Very dissatisfied

PART 2 - Section A : Academic Services on the Campus

Please rate each statement below by circling the scale provided.

1 = Strongly disagree
2 = Disagree
3 = Somewhat Agree
4 = Agree
5 = Strongly agree
N/A = Not Applicable

A1. Course/Syllabus/Subject	Strongly Disagree ---- Strongly Agree					
A1.1 The program that I register for has syllabus/subjects relevant to my future job and career prospect.	1	2	3	4	5	N/A
A1.2 The program that I register for has syllabus/subject that increases my knowledge and interest.	1	2	3	4	5	N/A
A1.3 The program that I register for has syllabus/subject that is of international standard.	1	2	3	4	5	N/A
A1.4 The program that I register for has syllabus/subject that is up-to-date.	1	2	3	4	5	N/A
A2. Course/Subject Material	Strongly Disagree ----Strongly Agree					
A2.1 The course/subject material helps me to understand the subject.	1	2	3	4	5	N/A
A2.2 The course/subject material is useful and relevant.	1	2	3	4	5	N/A
A2.3 The course/subject material is interesting.	1	2	3	4	5	N/A
A2.4 The course/subject material is easily obtained or accessible.	1	2	3	4	5	N/A
A2.5 The course/subject material is of international standard.	1	2	3	4	5	N/A
A3. Course Delivery	Strongly Disagree ----Strongly Agree					
A3.1 Lecturers use a mixture of teaching methods e.g. lecture, video, case study, discussion, hands-on, site visit etc.	1	2	3	4	5	N/A
A3.2 There is a two-way communication between lecturers and students in the class. (e.g. I can ask question and express ideas in the class).	1	2	3	4	5	N/A
A3.3 Lesson is interesting and can capture attention of students.	1	2	3	4	5	N/A
A3.4 Lesson that can make me understand through explanation and giving examples.	1	2	3	4	5	N/A
A3.5 There are opportunities to work with students from other countries.	1	2	3	4	5	N/A
A3.6 The number of students in my class is appropriate.	1	2	3	4	5	N/A

A4. Course Assessment	Strongly Disagree ----Strongly Agree					
A4.1 The assessments are based on the course/subject content.	1	2	3	4	5	N/A
A4.2 The assessment have different methods e.g quiz, test, assignment, case study, final exam etc.	1	2	3	4	5	N/A
A4.4 The assessment (quiz, test, assignment etc.) is well scheduled. It is not cram or given at the end of the semester.	1	2	3	4	5	N/A
A4.5 The assessment are graded fairly.	1	2	3	4	5	N/A
A4.6 The lecturers give feedback on the assessment.	1	2	3	4	5	N/A
A5. Admission Requirement	Strongly Disagree ---- Strongly Agree					
A5.1 The standard of admission requirement is high.			3		5	N/A
A5.2 My university has a system that recognizes my previous qualification and certificate and allows exemption.			3	4	5	N/A
A6. Lecturer	Strongly Disagree ---- Strongly Agree					
A6.1 Lecturers are good in teaching.	1	2	3	4	5	N/A
A6.2 Lecturers are qualified and knowledgeable.	1	2	3	4	5	N/A
A6.3 Lecturers motivate me to learn.	1	2	3	4	5	N/A
A6.4 Lecturers speak good English.	1	2	3	4	5	N/A
A6.5 Lecturers are reliable (on-time and do not cancel class) and available.	1	2	3	4	5	N/A
A6.6 Lecturers are fair and treat every student equally regardless of background and nationality (country).	1	2	3	4	5	N/A
A6.7 Lecturers are open-minded by accepting other people's opinions.	1	2	3	4	5	N/A
A6.8 Lecturers are helpful, kind and caring.	1	2	3	4	5	N/A
A6.9 Lecturers are from different countries.	1	2	3	4	5	N/A
A7. Engagement with Other Students	Strongly Disagree ---- Strongly Agree					
A7.1 I can easily join group discussions and do group assignment with Malaysian students.	1	2	3	4	5	N/A
A7.2 I get help and support from Malaysian students.	1	2	3	4	5	N/A
A7.3 I can easily join group discussion and do group assignment with international students.	1	2	3	4	5	N/A
A7.4 I get help and support from international students.	1	2	3	4	5	N/A

A8. Laboratory & Computer Lab Facilities	Strongly Disagree ----Strongly Agree					
A8.1 The laboratory & computer lab facilities are up-to-date.	1	2	3	4	5	N/A
A8.2 The laboratory & computer lab facilities are equipped to support my learning.	1	2	3	4	5	N/A
A8.3 The laboratory & computer lab facilities are enough for all users.	1	2	3	4	5	N/A
A8.4 I can use the laboratory & computer lab facilities at the time convenient to me.	1	2	3	4	5	N/A
A9. Library Facilities	Strongly Disagree ----Strongly Agree					
A9.1 The staff at the library are knowledgeable to assist me.		2	3		5	N/A
A9.2 The library is quiet and has conducive environment for study and group discussion.			3	4	5	N/A
A9.3 The library has adequate resources e.g. books, journals, online materials to support my learning.	1	2	3	4	5	N/A
A9.4 I can easily access and download online materials when I am out of campus.	1	2	3	4	5	N/A
A10. Internet Access and Connection	Strongly Disagree ----Strongly Agree					
A10.1 There is internet connection on campus.	1	2	3	4	5	N/A
A10.2 The internet connection is always available in the campus.	1	2	3	4	5	N/A
A10.3 The on-campus internet connection is of high speed connection.	1	2	3	4	5	N/A
A11. Classroom / Lecture Hall	Strongly Disagree ----Strongly Agree					
A11.1 The university has comfortable classrooms and lecture halls (adequate natural sunlight, windows, good ventilation, comfortable temperature etc.)	1	2	3	4	5	N/A
A11.2 The classrooms and lecture halls are equipped with quality teaching and learning equipment (e.g. multimedia).	1	2	3	4	5	N/A
A12. Academic Support	Strongly Disagree ----Strongly Agree					
A12.1 My university provides extra classes/tutorial/workshop/tuition that help me with my weak subjects.	1	2	3	4	5	N/A
A12.2 My university supports and helps me in getting internship placement in Malaysia.	1	2	3	4	5	N/A

PART 2 - Section B : Non-Academic Services On the Campus

B1. Student Administrative Services (e.g. International Office/Registrar Office/Student Affairs/Finance Department)	Strongly Disagree ——Strongly Agree					
B1.1 The office is open at the time convenient for me.	1	2	3	4	5	N/A
B1.2 Support staff is knowledgeable about rules and procedures.	1	2	3	4	5	N/A
B1.3 Support staff is capable to solve problems when it arises.	1	2	3	4	5	N/A
B1.4 Support staff provides reliable and efficient services.	1	2	3	4	5	N/A
B1.5 Support staff possesses good communication skill and provide feedback.	1	2	3	4	5	N/A
B1.6 Support staff possesses good command of English.	1	2	3	4	5	N/A
B1.7 Support staff shows concern and care about students.			3		5	N/A
B1.8 There is a place/department where I can make a complaint.			3	4	5	N/A
B2. Orientation	Strongly Disagree ——Strongly Agree					
B2.1 Someone from the university picked me up from the airport when I arrived in Malaysia.	1	2	3	4	5	N/A
B2.2 The orientation program provided information to equip me with my living on the campus. (e.g. academic briefing, faculty members, tour of campus etc.)	1	2	3	4	5	N/A
B2.3 The orientation program provided information to equip me with my living in Malaysia. (e.g. basic Malay language for daily communication, cultures and rules in Malaysia)	1	2	3	4	5	N/A
B3. On-Campus Accommodation	Strongly Disagree ——Strongly Agree					
B3.1 My university provides affordable accommodation.	1	2	3	4	5	N/A
B3.2 My university provides accommodation with good condition and facilities.	1	2	3	4	5	N/A
B3.3 My university provides accommodation that has comfortable living environment (e.g. quiet, peaceful, clean, privacy etc.).	1	2	3	4	5	N/A
B4. Transportation (provided by university)	Strongly Disagree ——Strongly Agree					
B4.1 My university provides reliable transportation services within the campus.	1	2	3	4	5	N/A
B4.2 My university provides transportation services to important places out-of-campus (e.g. KTM/LRT station, nearby mall).	1	2	3	4	5	N/A
B4.3 My university provides infrastructure for students to cycle or walk on the campus (e.g. covered walk way or cycling track etc.).	1	2	3	4	5	N/A
B4.4 My university provides transportation services to students who live out of campus.	1	2	3	4	5	N/A
B4.5 My university has many parking spaces on the campus.	1	2	3	4	5	N/A

B5. Food on the Campus	Strongly Disagree ——Strongly Agree					
B5.1 My university has food stall/food court/cafeteria that sells food that meets my needs.	1	2	3	4	5	N/A
B5.2 My university has food court or cafeteria that has comfortable environment (e.g. easy to find a seat, good ventilation, clean etc.)	1	2	3	4	5	N/A
B6. Healthcare on the Campus	Strongly Disagree ——Strongly Agree					
B6.1 My university provides healthcare services on campus or near the campus (e.g. clinics or dispensary).	1	2	3	4	5	N/A
B6.2 The clinic on my campus has competent (qualified & good) doctors or pharmacists.	1	2	3	4	5	N/A
B6.3 The clinic provides the right treatment and medication.	1	2	3	4	5	N/A
B7. Safety & Security on the Campus	Strongly Disagree ——Strongly Agree					
B7.1 I feel secure and safe when I am on the campus.	1	2	3	4	5	N/A
B7.2 I feel that my property or belongings (laptop, hand phone, car, motorcycle etc.) are safe when I am on the campus.	1	2	3	4	5	N/A
B8. Financial Assistance	Strongly Disagree ——Strongly Agree					
B8.1 My university provides scholarship for me.	1	2	3	4	5	N/A
B8.2 My university provides subsidy or discount for me.	1	2	3	4	5	N/A
B8.3 My university provides study loan for me.	1	2	3	4	5	N/A
B8.4 My university allows me to work part-time on the campus.	1	2	3	4	5	N/A
B9. Sports & Recreation	Strongly Disagree ——Strongly Agree					
B9.1 My university has sports facilities. (e.g. gym, field, courts, swimming pool etc.)	1	2	3	4	5	N/A
B9.2 My university has good condition of sports facilities. (e.g. gym, field, courts, swimming pool etc.)	1	2	3	4	5	N/A
B9.3 My university has a lively campus (e.g. many sporting events and activities held on the campus).	1	2	3	4	5	N/A
B10. Club & Society	Strongly Disagree ——Strongly Agree					
B10.1 My university has clubs and societies on the campus for me to join.	1	2	3	4	5	N/A
B10.2 My university has clubs and societies that are active on the campus for me to join.	1	2	3	4	5	N/A
B10.3 My university has International Student Society.	1	2	3	4	5	N/A
B10.4 My university has International Student Society that is active (organizes activities and events).	1	2	3	4	5	N/A

B11. Career Guidance	Strongly Disagree -—Strongly Agree					
B11.1 My university provides guidance and information on career (workshop, talks, resume writing, interview skills, career fair).	1	2	3	4	5	N/A
B11.2 My university disseminates (give) information on career opportunity.	1	2	3	4	5	N/A
B12. Care & Belongingness	Strongly Disagree -—Strongly Agree					
B12.1 My university is concerned about the needs of international students.	1	2	3	4	5	N/A
B12.2 My university cares about me.	1	2		4	5	N/A
B12.3 My university has a person-in-charge that I can get help from when I am in need or in trouble. (e.g. a person from International Office that I can call for help).			3		5	N/A
B12.4 My university provides counseling services for students when they have problems.	1	2	3	4	5	N/A
B12.5 My university has environment for me to practice my religion on the campus. (e.g. place to worship, fellowship, halal food, vegetarian food, wearing of hijab etc.)		2	3	4	5	N/A
B13. Diversity of Student Population	Strongly Disagree -—Strongly Agree					
B13.1 My university has many international students.	1	2	3	4	5	N/A
B13.2 My university has international students from different countries.	1	2	3	4	5	N/A
B13.3 My university provides opportunities for interaction between local and international students.	1	2	3	4	5	N/A
B14. Location of Campus	Strongly Disagree -—Strongly Agree					
B14.1 My university is located near to public transportation services. (e.g. bus-stop or taxi stand, KTM/LRT Station).	1	2	3	4	5	N/A
B14.2 There are many houses or rooms for rent near my campus.	1	2	3	4	5	N/A
B14.3 My university is located near places for leisure activities (e.g. shopping mall, supermarket, fitness center etc.)	1	2	3	4	5	N/A
B14.4 My university is located in or close to a major city in Malaysia.	1	2	3	4	5	N/A
B15. Physical Building & Environment on the Campus	Strongly Disagree -—Strongly Agree					
B15.1 My university provides the environment of a campus/university.	1	2	3	4	5	N/A
B15.2 My university has good building and infrastructure to operate as a university.	1	2	3	4	5	N/A

PART 2 - Section C : External Environment (Outside of Campus)

C1. Social Support (Relatives & Friends)	Strongly Disagree ——Strongly Agree					
C1.1 I have family members or relatives that help and provide emotional support for me while in Malaysia.	1	2	3	4	5	N/A
C1.2 I can easily make friends with Malaysians.	1	2	3	4	5	N/A
C1.3 I have Malaysian friends who support and help me when I am in need.	1	2	3	4	5	N/A
C1.4 I can easily make friends with international students of different nationalities.	1	2	3	4	5	N/A
C1.5 I have international friends of different nationalities who support and help me when I am in need.	1	2		4	5	N/A
C1.6 I have friends from my home country (same nationality) who provide me with support and companionship in Malaysia.			3	4	5	N/A
C2. Society & Community	Strongly Disagree ——Strongly Agree					
C2.1 I have Malaysian friends who are not from my university.	1	2	3	4	5	N/A
C2.2 I make friends with Malaysian neighbour.		2	3	4	5	N/A
C2.3 My Malaysian neighbor(s) invited me to their house during festive season, celebrations or social gathering (e.g. Hari Raya, Chinese New Year, Deepavali, Christmas, birthday etc.)	1	2	3	4	5	N/A
C2.4 Malaysia has a friendly community, easy to get along and live with.	1	2	3	4	5	N/A
C2.5 Malaysians in general are helpful.	1	2	3	4	5	N/A
C2.6 I feel comfortable joining activity organized by the community where I live.	1	2	3	4	5	N/A
C3. Safety & Security in Malaysia	Strongly Disagree ——Strongly Agree					
C3.1 I feel secure and safe when I am outside of campus.	1	2	3	4	5	N/A
C3.2 I feel that my property or belongings (laptop, hand phone, car, motorcycle etc.) are safe when I am outside of campus.	1	2	3	4	5	N/A
C4. Discrimination	Strongly Disagree ——Strongly Agree					
C4.1 I feel welcomed & accepted by Malaysian.	1	2	3	4	5	N/A
C4.2 I receive same treatment like other Malaysians (e.g. renting a room/house, healthcare services, authority etc.)	1	2	3	4	5	N/A
C4.3 I receive the same opportunity like other Malaysians (e.g. internship, scholarship, job opportunity etc.)	1	2	3	4	5	N/A

745

C5. Language & Communication	Strongly Disagree ----Strongly Agree					
C5.1 I can talk to my Malaysian friends.	1	2	3	4	5	N/A
C5.2 I can talk to my lecturers.	1	2	3	4	5	N/A
C5.3 I can talk to Malaysian in general (e.g. taxi drivers, people who sell things, ordering food, my landlord etc.).	1	2	3	4	5	N/A
C5.4 Language is not a problem/barrier for me to live in Malaysia.	1	2	3	4	5	N/A
C5.5 I can communicate with Malaysian in English.	1	2	3	4	5	N/A
C6. Culture	Strongly Disagree ----Strongly Agree					
C6.1 I know the culture and customs in Malaysia.	1	2	3	4	5	N/A
C6.2 I understand the multi-ethnic and multi-cultural differences in Malaysia.	1	2	3	4	5	N/A
C6.3 Malaysian culture is almost similar to my home country.	1	2	3	4	5	N/A
C7. Food	Strongly Disagree ----Strongly Agree					
C7.1 I can find food that I like in Malaysia.	1	2	3	4	5	N/A
C7.2 I can find ingredients or spices to cook my choice of food in Malaysia.	1	2	3	4	5	N/A
C8. Public Transportation (outside the campus)	Strongly Disagree ----Strongly Agree					
C8.1 I can easily find public transportation services in Malaysia (e.g. always available).	1	2	3	4	5	N/A
C8.2 The public transportation services in Malaysia is reliable. (e.g. on-time)	1	2	3	4	5	N/A
C8.3 The condition of public transportation services in Malaysia are comfortable and clean.	1	2	3	4	5	N/A
C8.4 Peoples who provide transportation services are friendly, helpful and honest (e.g. bus driver, taxi driver etc.)	1	2	3	4	5	N/A
C9. Healthcare (outside the campus)	Strongly Disagree ----Strongly Agree					
C9.1 I have insurance coverage for medical and hospitalization.	1	2	3	4	5	N/A
C9.2 The health care providers (clinics/hospitals) have competent (qualified & good) doctors.	1	2	3	4	5	N/A
C9.3 The health care providers (clinics/hospitals) give the right treatment and medication.	1	2	3	4	5	N/A
C10. Location of Malaysia	Strongly Disagree ----Strongly Agree					
C10.1 Malaysia is near my home country.	1	2	3	4	5	N/A
C10.2 I am able to go home frequently because Malaysia is near my country.	1	2	3	4	5	N/A
C10.3 My family members can visit me frequently as Malaysia is near my country.	1	2	3	4	5	N/A

C11. Attraction of Malaysia	Strongly Disagree —Strongly Agree					
C11.1 Malaysia has many places to visit and holiday (e.g. highlands, historical city, mountains, islands etc.)	1	2	3	4	5	N/A
C11.2 Malaysia has a lot of natural greenery (e.g. forest reserved, many trees and plants along highways, housing area etc.).	1	2	3	4	5	N/A
C11.3 Malaysia has many celebrations and festivals that I can experience or join.	1	2	3	4	5	N/A
C11.4 I feel comfortable with the weather in Malaysia.	1	2	3	4	5	N/A
C11.5 I can find and attend places of worship of my religion in Malaysia (Mosque, Temple, Church etc.).	1	2	3	4	5	N/A
C11.6 I can practice my religion easily in Malaysia (e.g. halal food, surau, vegetarian food, dress-code like hijab etc.).	1	2		4	5	N/A
C12. Government & Legal Framework	Strongly Disagree —Strongly Agree					
C12.1 Malaysian government and the government of my country has good relationship.			3	4	5	N/A
C12.2 The Malaysian Government grants me visa to study in Malaysia.	1	2	3	4	5	N/A
C12.3 The time taken to process my visa is acceptable.	1	2	3	4	5	N/A
C12.4 The services provided by people processing the visa is good and efficient.	1	2	3	4	5	N/A
C12.5 The cost of visa application and visa renewal is reasonable.	1	2	3	4	5	N/A
C12.6 Malaysian government allows me to work when I am still studying.	1	2	3	4	5	N/A
C12.7 Malaysian government allows me to work after my graduation.	1	2	3	4	5	N/A
C12.8 Malaysian government allows me to migrate to Malaysia.	1	2	3	4	5	N/A
C13. Industrial Training/ Internship	Strongly Disagree —Strongly Agree					
C13.1 I have the opportunity of industrial placement (internship) in Malaysia.	1	2	3	4	5	N/A
C13.2 I can easily find industrial placement (internship) in Malaysia.	1	2	3	4	5	N/A

PART 2 - Section D : Image/Brand/Reputation

D1. Brand	Strongly disagree ---Strongly agree				
D1.1 I believe my university has good name and reputation in Malaysia.	1	2	3	4	5
D1.2 I believe my university is the best private university in Malaysia.	1	2	3	4	5
D1.3 I believe my university delivers quality education.	1	2	3	4	5
D1.4 I believe my university offers the best program that I enrolled in.	1	2	3	4	5
D1.5 I am proud to graduate from my university.	1	2	3	4	5
D2. Recognition	Strongly disagree ---Strongly agree				
D2.1 The degree from my university is recognized by my home country.	1	2	3	4	5
D2.2 The degree from my university is recognized worldwide.	1	2	3	4	5
D3. Ranking & Rating	Strongly disagree ---Strongly agree				
D3.1 I believe my university is highly ranked among Malaysian universities (e.g SETARA Rating or national university rating).		2	3	4	5
D3.2 I believe my university are highly ranked internationally (e.g World University ranking).	1	2	3	4	5

Continue Next Page

332

PART 2 - Section E : Value for Money

E1. Fee	Strongly disagree —Strongly agree				
E1.1 A degree from my university is a good investment.	1	2	3	4	5
E1.2 The university that I enrolled in has reasonable (acceptable) fee as compared to other universities.	1	2	3	4	5
E1.3 The university that I enrolled in has fees that offer good value for money for the services provided.	1	2	3	4	5
E2. Cost of Living	Strongly disagree —Strongly agree				
E2.1 I can afford (able to pay) the cost of living and studying in Malaysia.	1	2	3	4	5
E2.2 The price of food is reasonable and affordable for me (applicable to stay-on campus or out of campus).	1	2	3	4	5
E2.3 The cost of accommodation is reasonable and affordable for me (applicable to stay-on campus or out of campus)	1	2	3	4	5
E2.4 The cost of transportation is reasonable and affordable for me (applicable to stay-on campus or out of campus).	1	2	3	4	5
E3. Other Value Gained	Strongly disagree —Strongly agree				
E3.1 I gained valuable living experience in Malaysia.	1	2	3	4	5
E3.2 I enjoyed the quality of life in Malaysia.	1	2	3	4	5
E3.3 I appreciate knowing about Malaysia and its people.	1	2	3	4	5
E3.4 I gained international exposure.	1	2	3	4	5

Continue Next Page

PART 2 - Section F : Post Behavior (after your experience of studying and living in Malaysia)

F1. Post Behavior	Strongly disagree —Strongly agree				
F1.1 I like talking about my university to my friends.	1	2	3	4	5
F1.2 I like helping other potential (interested) students by providing them with information about my university and its courses.	1	2	3	4	5
F1.3 I am willing to recommend the academic program or my university to others.	1		3	4	5
F1.4 I wish to maintain contact with the lecturers in my university.	1	2	3	4	5
F1.5 I will select the same university again for future study.	1	2		4	5
F1.6 I will join alumni of my university.	1	2	3	4	5
F2.1 I will choose Malaysia again for future study.	1	2	3	4	5
F2.2 I am willing to recommend Malaysia as study destination to others.		2	3	4	5
F2.3 I plan to work in Malaysia after graduation.	1	2	3	4	5

-End-

Thank you for your time!

334