

Transnational Tourism Programs in Vietnam: Students' Perspectives and a Practitioner's Reflection

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ABSTRACT

This paper examines an instructor and university students' views of different types of transnational tourism programs in Vietnam. A mixed methods research design, incorporating an online survey with 49 students, and an in-depth interview with one instructor, was utilised. Findings indicated that students had high expectations in both programs, but exhibited different satisfaction levels in the two programs. Students were generally satisfied with the program employing a fully adopted western curriculum, yet disappointed by the partially westernised program in which each provider accounts for 50% of the content. Findings from this study provide useful insights for transnational education providers, and tourism practitioners for future collaborations regarding curriculum development.

Key words: *Higher education; Transnational programs; Tourism; Vietnam*

INTRODUCTION

An important response to the globalisation of education, which has become a growing focus in institutional policies and strategies, is the internationalisation of higher education (HE) (James, 2005). One example of such response is the formation of markets delivering HE services, which is, in some cases, leading to substantial export and import markets. In taking the initiative to internationalise universities, Vietnam has created open policies for

international collaboration in HE (Postiglione, 2011), attracting several exporters of HE services. This reforming of HE aims to realise the potential of intellectual property for increased socio-economic development in Vietnam.

Internationalisation has contributed to the re-thinking process in terms of social, cultural and economic roles of HE (Kehm & Teichler, 2007). Such a re-thinking process has configured changes to national educational systems and universities, key drivers of the process regarding intellectual property (Ghasempour, Liaghatdar, & Jifari, 2011). With such important implications, internationalisation of HE has become a central focus of reform efforts of educational systems worldwide.

Transnational HE is considered an effective pathway to the internationalisation of HE in developing countries, with successful practices reported in China (Liu, 2012; Wang, 2008), India (Gupta, 2008), Malaysia (Tham, 2010), and Iran (Ghasempour et al., 2011). Several studies highlight the importance of local dimensions of individual academic systems operating in the global educational context (Lo, 2009) and regional education (Chan & Ng, 2008; Sugimura, 2012) as a transition to more effective internationalisation in Asia. Also known as cross-border or international education, transnational HE encompasses a broad range of programs through institutional partnerships, various delivery modes, and integration of cultural issues into curriculum designs (Knight, 2003). By adopting multi-cultural and multi-linguistic models in educational approaches, transnational education can “serve as a good means to meet educational needs globally” (Toprak, 2006, p. 1).

The adaptation of program content and pedagogical methods to suit the local culture of transnational courses remains an issue in international education, especially when fully adopted westernised courses are strongly advocated by several educational providers (Luke, 2005). Apart from cultural appropriateness, quality assurance is another major issue of transnational HE. Due to increasing commercialisation, educational providers are under pressure to compete for student enrolments. As a result, research indicates that

quality of several transnational programs has been compromised (Lieven & Martin, 2006), with practices such as ‘soft marking’ or ‘grade inflation’ (Tierney, 2001).

Although experiences of educational internationalisation from developing nations have been studied at both national and institutional levels (Fang, 2012; Ghasempoor et al., 2011; Gupta, 2008; Huang, 2007; Wang et al., 2010), research investigating the experiences of home students (students in a local countries whose education is internationalised with foreign programs) in transnational programs, and potential issues emerging from engagement in these programs, have received little attention. This study aims to understand the operation of transnational programs by profiling the expectations and perspectives of those involved – the instructors and the students – and identify the influence of these programs on the expectations and experiences of university students. Gauging their perceptions is important for curriculum designers and educators to ensure more effective delivery of high quality transnational programs.

LITERATURE REVIEW

Internationalisation of Higher Education (HE)

The prevalence of internationalisation in HE has seen increasing growth in educational delivery, forming a substantial market for import and export of HE services. A widely-used definition of internationalisation of HE introduced by Knight (2003) is “the process of integrating an international, intercultural, or global dimension into the purpose, functions, or delivery of postsecondary education” (p. 1). As a response to the globalisation of education, this definition has important connotations of cultural integration of educational dimensions, in which teaching and educational services help interpret international and cultural elements (De Wit, 2000).

The internationalisation of HE has been a growing focus in institutional policies and strategies (James, 2005), and expanded in

several forms including moving educational providers across borders (Knight, 2004). Two forms of internationalisation have been identified by Huisman and Van der Wende (2004). The traditional form is based on short-term activities and temporary funding involving projects, academic exchanges, and predominantly international mobility of students and academic staff. In contrast, new internationalisation involves systematic arrangements involving national and international mobility patterns of students and academic staff, new geographical destinations, formal institutional agreements in term of cooperation, different forms of educational providers, and economic-oriented conditions facilitated by organisations such as the European Union, World Trade Organisation, or General Agreement on Trade in Services. This expanded form of the process has created new realities for colleges and universities in their national context to prioritise internationalisation (Maassen & Uppstrom, 2004, as cited in Ghasempoor et al., 2011).

As international education has become more widespread, research has been conducted to gauge the experiences of international students in various programs (e.g. Brookes, 2010; Burdett & Crossman, 2011; Dolnicar, & Ayoub, 2008; Kumaran & Bordia, 2011; Russell, Shin, & Lee, 2011; Wang & Moore, 2007). However, to what extent ‘home’ students (referring to students in a local country whose education is internationalised with foreign programs), benefit from the internationalisation process, has received little attention in the literature. As transnational education is considered to be ‘advanced’ education in developing nations, it is critical for these issues to be examined.

Transnational HE and Issues of Cultural Appropriateness and Quality Assurance

In the process of internationalisation of HE, many developing countries have adopted transnational education as a pathway to internationalised educational systems. This is in contrast to distance education, which is formally defined by Moore and Kearsley (1996) to be “teaching and planned learning in which teaching is normally occurs in a different place from learning, requiring communication

through technologies as well as special institutional organisation” (p. 2). Research indicates distance education has perceived negative connotations, and low qualities in Asian cultures, reflected by the educational mentality that directs interactions with instructors are essential (Wang & Moore, 2007). As defined by McBurnie and Ziguras (2007), transnational education “encompasses any education delivered by an institution based in one country to students located in another” (p. 1). Transnational HE, which is more limited in scope, refers to exported education regarding international university cooperation. This type of educational partnership has experienced fast growth in several countries worldwide, and is acknowledged as an emerging trend, especially in developing nations (Luke, 2005). The UNESCO and the Council of Europe (2001) describe transnational HE as education “in which learners are located in a country different from the one where the awarding institution is based” (p. 12). Transnational HE is also regarded as cross-border, or international education, which involves a wide range of programs delivered through institutional partnerships, in different modes of delivery, and which integrate local concerns into the curricula (Knight, 2003). Toprak (2006) suggests that by adopting multi-cultural and multi-linguistic models in the educational approach, transnational HE “serves as a good means of meeting educational needs globally” (p. 1).

While the cultural integration of programs from external providers is likely to underpin their successful adoption in the host country, the adaptation of content and pedagogical methods to the local culture has received minimal focus. In fact in current transnational courses in developing countries, the utilisation of a ‘global template’ with no evidence of the inclusion of local characteristics is advocated by several educational providers (Luke, 2005). The term ‘global template’ refers to the 100% adoption of a foreign curriculum with no local cultural inclusion. Implications of recent research suggests that currently implemented transnational courses may not provide the benefits students expect to receive from their foreign degrees (Yang, 2008).

In addition to the issue of culture appropriateness, quality assurance of transnational HE has been a major concern as transnational HE

has become commercialised, and competitive for student enrolment numbers, thus competing with local programs. Research suggests that since transnational education has been increasingly economically focused, the quality of transnational programs have been compromised (Lieven & Martin, 2006), evidenced by the engagement of institutional practices such as ‘soft marking’, or ‘grade inflation’ (Tierney, 2001) in which academics are compelled to lower entry standards and assessment criteria to ensure the eligibility of a larger number of students. Transnational education is sometimes seen as the fastest way for developing countries to boost the capacity of their educational systems for the purpose of human capital building and economic development, by having access to advanced western education. However, this open policy targeted to encourage the development of offshore education has overlooked quality control process. Moreover, transnational programs are economically driven as they are fully funded by students’ tuition fees, which have increased their market vulnerability (McBurnie & Ziguras, 2007). While the unregulated nature of educational markets provides no incentive for quality control, some institutions striving for sustainable development, and competing for quality, are trying to create benchmarks for quality assurance (Meek, 2006).

As a response to internationalisation of education, transnational HE has received attention at international, regional, national, and institutional levels. For some developing countries, including Vietnam, transnational HE has been prioritised on the educational agenda as a means of closing the gap between developed and developing worlds. Such educational agenda has introduced numerous challenges in teaching standards, commitments to research and innovation, and quality accreditation (Harman, Hayden, & Nghi, 2010). Hence it is important for new players in the internationalisation of HE to learn and critically reflect on the experiences of other countries in the region, and the rest of the world optimising its benefits from such initiatives.

Experiences of Higher Education Internationalisation

Internationalisation of education is largely considered as a mechanism of making educational institutions known, and thus, to

attract international students, or export education to other countries via distance or transnational education. This process is closely associated with the perspective of 'westernised education' which is perceived to be globally standardised. Studies documenting successful practices and worldwide achievements in international education include research in the UK (Ayoubi & Massoud, 2007; Jiang & Carpenter, 2011; Luxon & Peelo, 2009; Sulkowski & Deakin, 2010), Australia (Mazzarol & Soutar, 2008), and New Zealand (Elkin et al., 2005; 2008). The importance of teaching and learning has been highlighted as an integral part of curriculum design activities, with many researchers recommending the explicit incorporation of teaching and learning strategies in conceptualisations of internationalisation, making them central to policy development.

Although not as fully developed as in the West, the process of internationalisation of HE in the Asia Pacific region is an emerging trend, experiencing significant transformations in which HE in China has reported successful practices (Liu, 2012; Wang, 2008). Other serious attempts for the purpose of closing the gap between developed and developing world include the internationalisation of HE in Iran (Ghasempoor et al., 2011), reflection on a key policy challenge in Malaysia (Tham, 2010), reflection on developments, emerging trends, issues and important policy implications in Africa (Jowi, 2009), as well as in-depth research on international trends and private education in India (Gupta, 2008).

The existing challenges, in particular, implementation issues in the internationalisation of HE (De Meyer, 2012), have generated the need for regional education, regional networks and international cooperation among Asian universities in higher education, as a transitional step to more effective internationalisation (Chan & Ng, 2008; Sugimura, 2012). In examining the approaches taken by Hong Kong and Singapore to develop themselves as 'regional hubs of higher education', Chan and Ng (2008) found significant differences in their implementation approaches, despite several similarities in their vision and policy instruments.

Western Tourism Programs in Eastern Countries

Although different parts of the world have approached the HEI process in various ways, they generally exhibit a similar pattern of adopting Anglo-Saxon, westernised standards for teaching, learning and quality assurance. Business courses have been considered the most successful internationalised programs, and tourism and hospitality management is reported as one of the most popular transnational courses in the Asia Pacific region (Huang, 2007).

The tourism and hospitality industry serves millions of people globally, and is a multi-billion dollar industry, making international tourism a lucrative business. International tourism has been widely recognised as a fast-growing, labour-intensive industry (Korpi & Mertens, 2004) which has posed certain responsibilities on tourism higher education. The tourism industry is dependent on the availability of high quality personnel to deliver, operate and manage tourist products. The interaction between the tourist, and tourism industry personnel, is an integral part of a tourist's total experience. English, which is the common language used in international tourism, is assumed to be included in the majority of tourism curricula. For these reasons, when considering transnational HE to internationalise universities, most universities in the East Asian region, where tourism HE has not experienced major development, have turned to tourism and hospitality as their prioritised transnational courses.

In response to the skill requirements in the tourism industry, tertiary educational institutions have developed a wide range of tourism courses. Currently, course content is the subject of considerable debate regarding standardisation and diversification, in which one program can cover a very broad range of topics and competencies in a single course, whilst other programs cover these topics and competencies in several courses (Wang, Huyton, Gao, & Ayres, 2010). Staff turnover is a significant concern in the tourism industry, and this issue has been traced back to staff training in the industry. In an Eastern context, Jiang and Tribe (2009) explored Chinese students' attitudes towards a tourism career in China, and found that current students and graduates working in the industry

did not consider tourism to be a long-term, sustainable career. In a Western context, Shin and Lee (2011) surveyed 193 international hospitality students on work placement in Australia, and found that their motivational levels in the workplace were low. Such attitudes can be explained by the different perspectives of younger generations on career orientation and commitment, or by the fact that the majority of jobs available in tourism and hospitality require generic skills which are generally acquired at vocational level. These findings have created debate on the optimal design and content of undergraduate tourism courses.

Research indicates the majority of tourism graduates in developing countries are employed in low paying jobs (Jiang & Tribe, 2009; Shin & Lee, 2011) such as hotel receptionists, and food and/or housekeeping attendants. Qualifications for these positions only require trade certification which can be attained at vocational institutions (Shin & Lee, 2011). Thus, it can be disappointing for university tourism graduates when many tourism/hospitality employers preferentially employ candidates who have been well trained in professional skills such as front office, food and beverage, and housekeeping. Such skills are more appropriately addressed at vocational levels, although they are considered as generic course components at university level. Therefore, the internationalisation of curricula is needed with this assisted by overseas institutions whose tourism HE has experienced major development.

Internationalisation of the curricula can be viewed as a process to develop curricula that prepares students with the knowledge and skills to work in a globalised environment, whilst preserving the distinctive cultural characteristics of the local context (Luxon & Peelo, 2009). However, the objective of this process has been misinterpreted by several educational institutions in developing countries, whereby the adoption of a 'global template' (Luke, 2005), that is, an overseas programs with no further negotiation for cultural inclusion, has become common practice, and advocated by several educational providers. It was believed that such practices may lead to imbalances in power relations, leading to implications for curriculum design (Luke, 2005; Luxon & Peelo, 2009). Although internationalisation has been positively correlated with sharing

practices equally across borders, the notion has sometimes been viewed from an imperialist perspective, which overlooks the cultural dimension of pedagogy, and adopts a ‘one size fits all’ approach (Jordan, 2008). Questions of best practice in HEI, and whose culture is the most appropriate, are complex considerations involving multiple stakeholders from different cultural backgrounds. When it comes to learners from different cultural background, their learning ideologies need to be considered for an effective curriculum design.

TRANSNATIONAL HE IN VIETNAMESE CONTEXT

Vietnam has experienced significant economic growth since 1989 with a steady increase in access to education at all levels. However, the global recession of 2008-2009 resulted in slow export growth with decreased overseas investment (Picus, 2009). Before the recession, Vietnam experienced increased educational development across populations from diverse socio-economic backgrounds. The recession was considered a threat to socio-economic development, and access to higher education whose quality improvement has subsequently been prioritised on the national agenda (Harman et al., 2010).

Vietnam has achieved a rapid expansion of a HE system aimed at strengthening the knowledge economy, with graduates who can effectively adapt to technological advances and changing labour markets (Lee & Healy, 2006). As a result, the country now experiences, recently recorded as having over 70% graduate employment in technical and professional fields (Sakellariou, 2010), although the alignment of university education to the needs of labour markets is still a problem that is also prevalent in other Southeast Asian countries (Postiglione, 2011).

In taking the initiative to internationalise universities, Vietnam has created open policies for international collaboration in higher education (Postiglione, 2011). The open policies have attracted several foreign institutions to Vietnam. Other forms of partnership

in HE include collaborative and transnational programs between Vietnamese colleges/universities and institutions from UK, US, Australia, and other European and Asian countries. Despite being at the early stages of implementation, quality assurance of transnational HE has been a major concern in Vietnam.

Moreover, while there is a need for promoting HE in realising the potential of intellectual property for socio-economic development, research indicates that a college degree does not assure Vietnamese students' career prospects (Tran & Swierczek, 2009). Degrees cannot secure graduates a job if their professional skills, and English language competency, are inadequate, as these skills are critically important in areas such as tourism and hospitality. There exists a paradox that whilst most skills required by employers can be acquired at the vocational level, Vietnamese students generally avoid vocational schools in an attempt to gain entrance into university which is viewed as a direct pathway to high-status occupations. Thus, a challenge for transnational education in Vietnam is providing an education that can balance learners' educational needs, and their workplace requirements.

RESEARCH AIM

This study aims to understand the operation of Vietnamese transnational programs by profiling the expectations and perspectives of those involved – the instructors and the students – to identify the influence of these programs on their expectations and experiences. Two types of transnational tourism programs were examined in this study; one 'partially westernised' program, and another 'fully westernised' program. Findings from this study are important for curriculum designers and educators to ensure more effective delivery of high quality transnational programs in Vietnam, which include appropriate cultural characteristics to adapt to local educational needs.

Context

The two transnational undergraduate tourism programs available in the South of Vietnam were selected as the focus for this study. Table 1 summarises the differences between the programs (westernised and partially westernised) representing two different types of transnational tourism programs.

Table 1: Summary of Differences between Westernised and Partially Westernised Programs

Components	Partially Westernized program (P1)	Westernized program (P2)
<i>Language of instruction</i>	French	English
<i>Partnership</i>	A Vietnamese private university and a French university	A Vietnamese private university and a French business school
<i>Awarded Degree</i>	Double Degree (awarded by both university partners)	A single degree awarded by the foreign partner
<i>Curriculum</i>	Employs a 50-50 model (each educational provider accounts for 50% of the program content and curriculum)	Adopts the entire program from the foreign partner (western program)
<i>Program length</i>	4 years full-time	3 years full-time
<i>Number of intakes</i>	Once a year (September)	Three intakes a year (October, February, July)
<i>Model of training</i>	Lecture-based	On-the-job training

The partially westernised program (P1) was piloted at the Vietnamese private university between 2000 and 2008. The pilot was sponsored by the Agence universitaire de la Francophonie (AUF) (Associations of French-speaking countries) until a partnership was formed with the French university, becoming an official double degree program in 2009. Although the program was originally designed as a 50-50 model, the implemented program operates with ten core subjects conducted in the foreign language, and the remaining component taken from the Vietnamese tourism program is conducted in Vietnamese.

In the westernised program (P2), the Vietnamese institution has functioned as an administrator and facilitator of the collaboration.

The program had its first intake in October 2011, and has continued with two intakes in 2012 and three intakes in 2013. The program structure and professional training have been developed in accordance with the model prevalent in Europe, and recently in Asia, i.e. on-the-job training model in which students study and work at real restaurants and hotels owned by the training institutions. The branch in Vietnam is a French cuisine fine-dining restaurant where learning and professional training take place.

METHODOLOGY

A mixed methods design was adopted in this study to enable a range of research questions to be answered where the study seeks to respond to both qualitative and quantitative enquiry issues (Johnson & Onwuegbuzie, 2004). The qualitative phase involved an in-depth interview with a transnational tourism instructor with a professional role and practical insights in both transnational tourism programs investigated in this study, whilst the quantitative phase involved the administration of an online survey to gauge the views of final year students of the two different transnational tourism programs.

Results from the survey's responses were exported to SPSS Version 21 for analysis. The interviews were transcribed for content with the data analysis based on the comments made. No emotional/non-verbal expressions and linguistic implications were taken into account. The data was analysed around the issues of the transnational tourism programs perceived by the interviewee as an educator and practitioner.

FINDINGS

Views of the Students

P2 students had better experiences with their learning, which is consistent with their perception of the positive aspects of the program content. On the contrary, negative experiences appeared to affect students from P1 as reflected by their responses to statements regarding their experiences with the program.

Students' expectations were shaped around the generally expected outcomes of an international education. These expectations included relevant knowledge and professional skills for a decent job at managerial level in an international hotel/ tourism enterprise, either domestic or overseas; experience of international education with western teaching and learning styles in an international environment; and the attainment of an internationally recognized degree as a result. Results indicate a very high level of agreement on all items, with a minimum of a 60% agreement noted (i.e. Strongly Agree and Agree), suggesting that students in both programs had high expectations. It is interesting to note some level of uncertainty recorded on several with the strongest level of uncertainty, and also the only disagreement, noted for the statement relating to "getting a job overseas". The results of a Reliability analysis show a moderate to high Cronbach's alpha ($\alpha=0.779$), indicating good consistency in responses across the items. No significant difference between the two mean scores for the program groups variable of expectations ($M=1.94$ & 1.91 , $SD=0.25$ & 0.29) was found, suggesting very similar expectations from the transnational tourism programs of the two groups. Overall, all the respondents appeared to have high expectations from transnational tourism programs. They all expected to be equipped with knowledge and skills for good jobs, to experience international education, to work in an international hotel, and to obtain an internationally recognized degree. These variables were scored with almost 100% agreement from both groups.

With regard to program content, findings indicated that students from P2 felt more positive about the program content than P1 students, with, for example, only 5% of P2 respondents indicating

disagreement regarding the usefulness of the internship preparation, the orientation to the expectations of local industry and the course conduct in a foreign language. On the other hand, respondents from P1 indicated a far higher level of disagreement overall regarding the value of course aspects, including over 60% disagreement on the three items registering 5% disagreement by the P2 group. The lowest level of disagreement was 32% regarding relevant assessment practices, practical assessment practices and local cultural practices. Perhaps the item with the most ambiguous response was related to the coverage of housekeeping. For this item the level of agreement from both groups was only around 30%. The respondents from P2 were very satisfied with the knowledge content of the course on Front Office, which was useful for their internship, and they exhibited full agreement that the assessment practices in the program were relevant. It is also noted that 90% of respondents from P2 responded that the content of the program was effectively conducted in the foreign language, compared to only 25% of respondents from P1. Although students from P2 had favorable feedback on the program content, they were unsure whether the courses were relevant to the workplace, and if they were oriented to the expectations of industry employers. A marked proportion of respondents from P2 reported uncertainty to these two items, 45% and 55% respectively. The Reliability analysis undertaken on the ten items of program content showed a very high level of consistency across the items (Cronbach's alpha of 0.962), thus an average score for content items was calculated. An assessment of whether this content score differed between the two groups was undertaken, this showed a very significant difference between the mean scores for P1 of 3.3 (SD=.3401) compared to a far lower, more positive assessment of 2.15 (SD= .8202) by P2 respondents ($t= 5.146$, $df= 33.410$, $p<.0000$, unequal variances).

Results of responses to program experience statements indicated only 25% of P1 students felt the program met their needs compared with 100% of students from the P2 group. Factors that may have contributed to this assessment include data which indicates that perceived difficulties of finding part time work were expressed by a higher proportion of students (67.9%) from P1. Although students from P2 did not consider finding work placement a challenge, there

was a high rate of ‘uncertain’ responses to this item from P2 students. Such high uncertainty re-appeared for P2 group in their responses regarding the difference between Vietnamese and transnational tourism programs.

Views of the Instructor

From the analysis of the interview transcripts, several issues pertaining to the two transnational tourism programs were identified, including issues arising internally from the administration of the programs, and students’ limited ability to participate in an international education.

Both programs lacked a clear orientation for students and had not been successful in delivering their stated goals and objectives to students to enable them to be well prepared at the completion of their studies. It was noted that it was difficult to recruit qualified instructors with appropriate qualifications in the tourism and hospitality discipline. In addition, the ability to deliver lectures and professional training in tourism courses in a foreign language (e.g., English or French) is problematic. The inconsistent implementation of quality assurance procedures across the system, and within the partnership between the Vietnamese university and the foreign educational institution were identified by the instructor. P2 was found to have some quality assurance procedures in place, whereas no quality assurance procedures were obvious in P1. The partnership resulted from the negotiation of matching core subjects between the two programs, which relied on the similarities of subject descriptions with no specific reference to content and curriculum details. No supervision on quality was acknowledged from the foreign side of the partnership. Such limitations have hindered transnational programs in meeting their objectives of providing an international education in teaching and learning. Although the transnational programs were trying to put some quality control in place, it was supposed to be initiated early, and then consistently and systematically implemented. Failure to implement an effective quality control system affected instructors and students in a negative way.

Although not unique to this study, lowering expectations to compete for student enrolments was identified as an ethical issue by the instructor. As soon as programs succeeded in forming a partnership with an international educational institution, they started recruiting students, sparing no time to prepare resources for an effective operation. The entry requirements are potentially compromised and expectations from students lowered in order to maintain the operation of the programs. It was indicated that education was being treated as a business in which the programs are trying to attract students using the prospect of an ‘international working environment’ as an advertisement slogan.

Students were assessed to be limited in their foreign language proficiency as even basic learning skills needed at undergraduate level, for example reading, oral presentation and simple academic research were often absent. Traditional eastern learning styles were reported to be a constraint for Vietnamese students to effectively participate in transnational programs. In general, students were overly optimistic about opportunities for employment. They did not have a full understanding of an ‘international working environment’, which was often interpreted as the opportunity for working overseas. This view was further enforced by advertisements of transnational programs promoting misguided expectations.

DISCUSSION

Ineffective Communication of Program Objectives

The ineffectiveness of communication was raised as a significant factor impacting on students’ experiences of transnational programs. As students appeared to have high, yet unrealistic expectations from transnational education, the unclear communication of the programs’ objectives to students from the beginning of their programs contributed to discouraging students, and negatively impacting their experiences.

It appears that this issue arose in the preparation phase of the transnational tourism programs. In P1, the program structure was not initially clearly identified, resulting in modifications and changes during the development of the partnership between the Vietnamese university and the foreign institution. These unexpected amendments negatively affected the students in that they found no difference between the Vietnamese tourism program, and the transnational program they are undertaking. As P2, by its nature, is a fully adopted foreign tourism program, the program objectives have been clearly defined by the foreign institution at the initial stage of the partnership. However, there was insufficient evidence from the research to justify the effectiveness of communicating these objectives to students. Therefore, further research on this issue is needed. This finding has important implications for partially westernised transnational programs in developing objectives reflecting the need for mutual agreements between two partners in the collaboration. Such a lack of consistency also impacts on the position of instructors in Vietnam because it would be difficult for instructors to give effective presentations of program content when they are not properly informed of program objectives.

Similar findings with program implementation were highlighted by De Meyer (2012) when addressing existing challenges of HEI. Although implementation issues cited in the literature were evidenced at national and regional levels, findings from this study indicate that these problems are also evidenced at the institutional level. Implications of this finding highlight the need for transnational programs to clearly communicate their objectives to students, and to ensure consistency among instructors and administrative support.

Language Issues

Language preparation for future study had not been effectively addressed in either of the programs. 75% of students in P1 reported struggling with courses fully conducted in the foreign language; and the majority did not report their language proficiency being enhanced during the program. Consequently, students felt disappointed and discouraged with their study. Language barriers

were acknowledged as a problem in both programs, which hindered understanding of course content and the effective communication of student views during class discussions. Similar findings were reported by Liu et al. (2010) who explored the perceptions of international students regarding the impact of cultural differences on their learning experiences. These researchers found language barriers were the biggest concern for Chinese students. Language issues were found to be associated with a sense of exclusion for international students in class discussions in Luxon and Peelo's (2007) study in a multicultural context. Extending these findings to this study, it could be inferred that language barriers may have excluded local students from experiencing transnational education. Such language barriers would inevitably impact on the effectiveness of students' learning outcomes.

Findings from this study indicated that foreign language acquisition is a significant barrier for students of transnational programs. This is particularly so for domestic Vietnamese students who have rarely been exposed to an English/French learning environment, even though they have passed standard admission examinations (i.e. IELTS or TOEFL for English). Implications of these findings highlight the need for students of transnational programs to improve their foreign language skills beyond the basic IELTS or TOEFL requirements before undertaking university-level tourism courses which immerse students in an intensive, foreign language environment. Alternatively, stricter entry requirements on foreign language proficiency would need to be implemented to ensure students could acquire success in foreign language acquisition in their tourism courses. Without such language capabilities, the students' learning outcomes from transnational tourism programs will be constrained in passive absorption of the knowledge, without the development of critical thinking, or the ability to apply the knowledge into the profession.

Limited Resources in Promoting an International Teaching and Learning Environment

Results from this study indicate that local instructors have a direct influence on students' learning experiences. Positive experiences

were reported by the instructor and students in the P2 group, whereas far less positive views were reported in the P1 group. The negative experiences reported by students from P1 were evidenced by high levels of disagreement on the positive aspects of program content. Results regarding instructional style support findings from previous research on different approaches to learning (Boyd & Richerson, 2007; Chang et al., 2010). Findings from this research posit that differences in learning approaches can have negative impacts on students' experiences in transnational or international courses, and highlights the importance of an international tourism curriculum that required the internationalisation of both content, and teaching practice.

In addressing the issue of teaching and learning style, instructors play a critical role in arousing interest, and promoting active learning, via western instructional initiatives and assessment practices. This raises issues concerning teaching competency in transnational programs shared by an instructor in the study, as results indicated instructors are varied in their sensitivity to different teaching styles. Some instructors integrated a western teaching and learning style through interaction and participation in their course content, however, many instructors, especially those in P1 did not consider changing their instructional style to promote an international learning experience for students.

Findings from this study also lend support for the importance of integrating active learning, as opposed to passive learning, for improving language acquisition in tourism programs. The traditional eastern instructional style, which tends to be lecture-centred, and generally utilises exam-based assessment methods, impacted on students' experience of international education via transnational programs in this study. This finding is consistent with previous research examining cultural differences between western and eastern educational practices (Robinson, 2008; Zhang, 2007).

These three highlighted issues are relevant to both programs, with varying degrees of significance. The issues are not linear, but interactive, which could impact long-term operation of these programs. As insufficient student enrolment numbers are an

undesirable consequence for any educational program, poor quality assurance processes, and low student perceptions, would result in reduced future enrolments.

IMPLICATIONS AND CONCLUSIONS

This study sought to explore the affordances or constraints of engaging in two different transnational programs in the Vietnamese context. As transnational education aims to include appropriate cultural characteristics to adapt to local educational needs, more research is needed to reflect on current practices to justify the objectives of transnational education. It is interesting to note that the program with culturally inclusive aspects was less favoured than the program with 100% adoption of a foreign curriculum. This finding runs contrary to the literature which often criticises programs without cultural inclusiveness (e.g., Luke, 2005; Yang, 2008). This has important implications for academics and curriculum developers in the implementation of cultural appropriateness in transnational education to ensure that this aspect can be acknowledged positively from both students and instructors.

The negative feedback regarding the relevance of content components to the requirements of local workplace requires further consideration of program content to ensure this content is industry-oriented. This has important implications for educational providers and local industry practitioners to collaborate on content and curriculum modification and improvement in order to properly respond to learners' needs. With regard to program administration, it is recommended that each partner in the transnational collaboration reach agreement on consistent communication of each program's objectives, and quality control procedures, from the early stages of the partnership. In order to address the issue of improving students' international learning experience, the engagement of local instructors is recommended to ensure westernised assessment practices are implemented, and to engage students in active learning environment. As the qualifications of local instructors also emerged

as a concern in transnational programs in this study, further research is needed to examine this issue.

The findings of this study contribute to empirical literature which aims to promote transnational education as an effective pathway to internationalisation of universities in Vietnam. The major contribution of this study is to address the gap in the literature by providing insights into the operation of these transnational tourism programs from the perspectives of those involved – the instructor and the students – and identifying the influence of these programs on the expectations and experiences of university students.

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Non-stick “green” cookware: Does it measure up to manufacturers’ claims?

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ABSTRACT

For the past decade, there has been much controversy over the dangers of non-stick polytetrafluoroethylene (PTFE) coated cookware. In response to the demand for a new non-stick product, manufacturers have developed environmentally friendly, non-PTFE alternatives. These “green” pans are supposedly non-stick and exceptionally durable. However, laboratory testing of these pans, as well as customer reviews, suggests a lack of credibility to such claims. This experiment was conducted to replicate television cooking demonstrations for non-stick cookware. A durability test was also conducted to assess the hardness of the ceramic coating.

Keywords: Consumer testing; Non-stick cookware; PTFE

INTRODUCTION

For the past decade, there has been much controversy over the dangers of Teflon® coated cookware, and its correlation with birth defects in laboratory animals (America’s Test Kitchen, 2009). In 2005, a law firm in Florida sued Teflon® manufacturer DuPont for

covering up the fact that Teflon® contains dangerous substances (Sissel, 2005). The chemical responsible for the danger is perfluorooctanoic acid, (PFOA), which is correlated with several types of cancer. The Environmental Protection Agency is asking for an end to PFOA use by the end of 2015 (Szalavitz, 2006). In response to this demand for a new non-stick product, several cookware manufacturers have developed “green” pans which are supposedly non-stick, as well as environmentally friendly, and contain no harmful substances. However, laboratory testing as well as customer reviews of these products would indicate that many are poor performers across a range of criteria. One pan in particular, which claims the ability to fry foods with no oil, was tested for performance over the course of this study.

LITERATURE REVIEW

Since the inception of polytetrafluoroethylene (PTFE), marketed commercially as Teflon®, this chemical coating has been a staple in the American food industry, as well as in the consumer kitchen. Originally hailed as the “most slippery material in existence,” PTFE has held a prime position among non-stick cookware since the 1960s (DuPont, 2015). Unfortunately, despite its culinary applications, the manufacture of PTFE has been associated with toxic substances potentially harmful to both animals and humans (Environmental Working Group, 2009). Most notable of these toxins is PFOA, otherwise known as C-8 (Sissell, 2003). The Environmental Protection Agency has serious concerns about PFOA, due to the fact that it does not break down in the environment, and can be found in blood samples of over 90% of U.S citizens due to exposure from long-term and widespread use in chemical production (Scheer, 2007). In past studies, PFOA has been correlated with cancers of the pancreas, liver, mammary gland, and testes (EPA, 2002; EPA, 2003). As of this writing, researchers are still debating the relative danger of this substance (EPA, 2015). However, much negative press has certainly impacted the popularity of PTFE-coated cookware.

Such controversy has created a market segment for non-PFOA substitutes: coatings that can bond to metal cookware, provide a low-friction surface, and be durable enough to withstand the rigors of daily use. These coatings primarily fall under two categories: ceramic and silicone copolymer. Of the two, ceramic is the most common, and is typically applied to an aluminum or base metal vessel through a process whereby “ceramic like” particles are suspended in a solvent, and sprayed onto the surface of the pan. The coating is then hardened through the application of heat, and slowly cured in an industrial oven (Whitford, 2012). While less frictionless than their PTFE counterparts, ceramic non-stick coatings are touted as being harder than Teflon®, and able to withstand higher temperatures (Whitford, 2012).

Copolymerized silicone based non-stick coatings are an extension of silicone alkyd resins developed in the 1950s. As silicone is very resistant to chemical and corrosive damage, as well as to high heat, it has proved a stable and trusted method of coating aluminum cookware (Witucki, 2003).

Non-PTFE cookware is readily available on the market, and has traditionally been marketed as “green” cookware. Manufacturers’ nomenclature commonly lists “PTFE free” among supposed attributes of the various products. Many of the larger producers of cookware are currently advertising a “green” non-stick offering, and several small companies have surfaced to ply their wares amid this trend. Despite the many benefits promised by the makers of these products, consumer organizations have published numerous warnings about the performance of same. Laboratory testing of “green” non-stick cookware has resulted in reports of poor performance across a range of criteria. In addition, a review of consumer watch websites reveals frequent customer complaints mainly concerning sticking of foods during the cooking process, and non-durable, chipping, or peeling coatings.

In 2009, America’s Test Kitchen put several “green” non-stick skillets through laboratory trials in the September issue of their publication *Cook’s Illustrated*. A year later, the Good Housekeeping Research Institute conducted a similar study on this type of non-

stick cookware. Both studies concluded that various popular brands of “green” cookware are lacking in many categories.

Both Good Housekeeping Research Institute (GHRI) and America’s Test Kitchen (ATK) rated the Scanpan Professional Ceramic Fry Pan as one of the best of the “green” pans tested. This product is a compressed aluminum skillet with a ceramic titanium coating. The only negative remark by ATK was that metal utensils left scratches in the surface (ATK, 2009). However, GHRI was disappointed with the pan’s non-stick surface, rating it as not “as slick” as other cookware (GHRI, 2010).

Next on the list was the GreenPan Thermolon non-stick frypan. This hardened anodized aluminum pan has a “Thermolon” ceramic non-stick finish. America’s Test Kitchen reported that the product cooked some proteins unevenly, failing to release. In addition, the coated surface scratched easily and became discolored during testing (ATK, 2009). An identical pan was tested by GHRI, who found the surface conducted heat very poorly and unevenly when used on electric ranges (GHRI, 2010).

Another ceramic coated anodized aluminum pan tested by both laboratories was the Cuisinart Green Gourmet Skillet. ATK found that this cookware allowed eggs to stick to the sides of the vessel, and tended to create burned edges on steaks. GHRI claimed that the non-stick surface stained easily, and required an abrasive cleaner to remove. This is a potential issue, as abrasives can be highly damaging to non-stick coatings (GHRI, 2010).

The only silicone copolymer-coated skillet reviewed by both laboratories was the Earth Pan Non Stick Sandflow hard anodized aluminum skillet. This vessel was rated as having a substandard non-stick coating by GHRI. America’s Test Kitchen found that the pan also displayed difficulties with releasing food items. In addition, after only a few days of testing, ATK reported visible scratches and significant deterioration of the copolymer surface (ATK, 2009).

Finally, the “green” skillet tested solely by America’s Test Kitchen was the Classicor Go Green non-stick skillet. This ceramic coated

stainless steel pan was the poorest performer of the vessels tested. ATK found that after preparing only scrambled eggs, the non-stick surface deteriorated, and then began to chip off. In addition, severe scratches were visible from fairly light usage (ATK, 2009).

From a consumer's standpoint, the various "green" products fared equally poorly. All of the pans as tested above have received negative customer reviews on websites, including Whirlpool Forums, Amazon, and Apartmenttherapy.com. For example, one customer reported that the Scanpan Professional Ceramic fry pan has "scratched and [is] looking very abused" after only six months of use. The same product was replaced multiple times by another customer, due to surface degradation, scratches and constant sticking of foods during the cooking process (Whirlpool, 2011).

The non-stick surface of the GreenPan fry pan was also rated poorly by two customers who specifically mentioned treating the pans carefully. One customer stated that with careful washing, and treating the pan "with kid gloves," the coating failed after six months of use (www.apartmenttherapy.com, 2009). Likewise, another customer mentioned careful treatment, and only using the pan on low heat, but still having difficulty with loss of the non-stick coating after only a few months (Amazon.com, 2010).

The Cuisinart GreenGourmet Skillet was rated very poorly by one consumer who states familiarity with use and care of non-stick cookware. Despite careful use and the fact that it was only used for egg cookery, the pan's surface "began bubbling up and flaking off" after two months of use (Amazon.com, 2011).

Earthpan's Nonstick Sandflow Skillet was rated poorly by customers as well. One reviewer complained of chipping of the non-stick coating, and food sticking after three months of light use (Amazon.com, 2012). Negative reviews from Wayfair.com include the non-stick finish completely coming off (2010), sticking and staining (2011), the bottom of the pan changing color (2013), and sticking and un-removable staining (2014).

Finally, the Go Green non-stick fryer by Classicor was rated by an unsatisfied customer on Amazon.com. Similar to the Earthpan, this fryer became permanently stained, and lost its non-stick coating after only light use on medium heat (Amazon, 2009).

Despite the numerous negative reports surrounding “green” non-stick cookware, both in the laboratory and the consumer kitchen, products continue to be manufactured, with new models appearing frequently. Such is the case with the OrGreenic line of non-stick cookware. Heavily advertised on television, this line of products, especially the non-stick skillet, is reputed to possess an almost frictionless surface that is nearly impossible to damage. The television advertisement depicts a product spokesperson swirling two-inch diameter rocks around the inside of the pan. In the next frame, a perfect sunny-side-up egg is shown also swirling, apparently with no fat or visible lubrication (OrGreenic, 2011). A primary selling point of the OrGreenic pan is that foods can be cooked with absolutely no oil or fat added to facilitate the cooking process. This would allow consumers to enjoy a much healthier diet, as no excess lipids are introduced to the various dishes. The advertisement replays multiple shots of fried eggs (sunny-side and omelets) as well as breaded chicken, all cooked to seeming perfection with no cooking fat whatever. Thus, in the vein of the laboratory tests discussed above, it was the intention of this study to test the OrGreenic non-stick skillet by attempting to replicate the claims of the television advertisement.

METHODOLOGY

The OrGreenic pans that were tested were ten-inch, anodized aluminum sauté pans, with a green ceramic coating on the cooking surface. Manufacturers claim that the pan is able to “fry” foods with no fat-based cooking medium, provided that the initial instructions for seasoning the pan are followed. The advertisement video for this product demonstrates the non-stick properties of the pan by showing an egg being fried sunny-side-up, fish being seared, and breaded chicken being perfectly browned, all with no oil. In addition, the

durability of the pan was demonstrated by filling the pan with approximately two-inch diameter rocks, which were then swirled over the non-stick coating several times leaving no visible scratches. To test the accuracy of these claims, this research concentrated on attempting three of these demonstrations.

All variable experiments were conducted using three newly purchased, identical, OrGreenic 10” non-stick fry pans. A Bosch sealed-top free standing electric oven/range (HE57282U) was utilized for all cooking processes. The research was carried out in a controlled environment in a kitchen laboratory by researchers experienced with the testing of cooking equipment. The entire experiment was photographed, and all temperatures were monitored with calibrated digital thermometers.

Seasoning the Pans: According to the provided instruction sheet, seasoning the OrGreenic fry pan consists of the following steps: First, a light coating of vegetable oil is spread over the cooking surface; second, the pan is placed on a stovetop over medium heat, and removed from heat when the oil begins to smoke; third, the pan is allowed to cool completely, and to be cleaned of excess oil. After this protocol has been followed, the pan supposedly can be used to cook any items with no fat-based cooking medium. All three of the OrGreenic 10” non-stick fry pans used in this research were seasoned using this method before testing began.

Test 1: Cooking sunny-side-up eggs with no oil.

Control Experiment: According to The American Culinary Federation (2006), the appropriate method for frying an egg (sunny side up) is to cook it in hot fat over medium heat until the whites are set. The pan is then tilted to allow the hot fat to coat and cook the yolk to desired doneness. As a control for the egg experiment, this traditional method was performed with a Johnson-Rose 63528 Platinum Pro fry pan, with 1 tablespoon of unsalted butter. The pan was placed over a burner at medium heat, and allowed to pre-heat for 2 minutes. A grade A large chicken egg was then poured into the pan from a bowl. The egg whites were allowed to set, and then the pan was tilted to allow the yolk to be basted by the hot fat. The

finished egg was then photographed in the pan. The entire cooking process took 3 minutes and 30 seconds, minus pre-heating (see Figure 1).



Figure 1

Variable Experiment: An OrGreenic 10” non-stick fry pan was placed on a burner, and allowed to pre-heat for 2 minutes. Again, a Grade ‘A’ large egg was introduced into the pan. The egg was allowed to cook for 3 minutes and 30 seconds, and then photographed in the pan. This variable experiment was conducted a total of three times, with three identical OrGreenic 10” non-stick fry pans.

Test 2: Browning (and fully cooking) breaded chicken with no oil.

Control Experiment: According to the American Culinary Federation (2006), the standard breading procedure consists of dredging a product with flour, dipping it in eggwash, and finally coating it with breadcrumbs. The same authority describes the standard process for frying chicken: Heat oil in a skillet to 350 degrees F. The oil should come ½” up the sides of pan. Chicken should be cooked in the hot oil on one side for 5 minutes. The chicken should then be turned and cooked on opposite side for 7 minutes, for a total cook time of 12 minutes (ACF, 2006). The control experiment was conducted using a 13” Johnson-Rose 4753 Crown Select induction fry pan. The pan was placed over medium heat, and vegetable oil was added to a depth of ½ inch. The pan was heated until the oil reached 350 degrees F. A chicken leg was breaded using the procedure as recommended above, and placed in the oil when the target temperature was reached. The chicken leg

was cooked for a total of 12 minutes, and turned once. The leg was checked for internal temperature, and then photographed in the pan (see Figure 2).



Figure 2

Variable Experiment: The chicken leg was floured, egg-washed, and breaded with plain ground bread crumbs, as described in the standard breading procedure above. Again the pan was placed over medium heat, and allowed to heat up until reaching 350 degrees F (2 minutes 33 seconds). Surface temperature of the pan was measured with a Bonjour E2062035326 infrared thermometer. The breaded chicken leg was placed in the pan, and was given a quarter turn after three minutes. Because there was no cooking medium, the only cooked areas were those which were in direct contact with the surface of the pan. This process was repeated four times for a total cooking time of twelve minutes. Finally, the internal temperature was taken with the instant read digital thermometer, and the chicken leg was photographed in the pan. This variable experiment was conducted a total of three times, with three identical OrGreenic 10” non-stick fry pans.

Test 3: Swirling rocks over the non-stick coating with no visible damage.

Control Experiment: The OrGreenic television advertisement very specifically shows a spokesperson for the product swirling six rocks (approximately two inches in diameter) around the inside of the pan for several rotations. This action had no visible impact on the integrity of the pan’s surface, nor of its non-stick abilities. In fact, the next frame of the advertisement shows a fried egg moving about the pan (presumably the same pan) with frictionless ease.

The surface of an unused pan was photographed using a Dino Lite table top digital microscope to provide a close up image of the OrGreenic non-stick surface in pristine condition (see Figure 3).



Figure 3

Variable Experiment: After the cookery experimentation had concluded, six two-inch-diameter rocks were procured, cleaned of excess dust and debris, and placed in one of the three pans to test the ability of the ceramic surface to withstand scratches, as well as its overall durability. The rocks were swirled around the interior of the pan for ten seconds. The pan was then wiped clean with a soft, damp cloth. This surface was also analyzed and photographed with the Dino Lite microscope.

Plausibility of the Advertisement: Despite any and all results (as discussed below), the researchers conducted a series of experiments by which to test if the OrGreenic 10” non-stick fry pan was indeed capable of producing food items exactly as pictured in the advertisement. Due to the fact that the manufacturers made no mention of specific temperatures or cooking times for the items produced, it seemed indicated that experiments be performed outside the range of traditional or even practical, cooking procedures. In this endeavor, tests were conducted to produce both food items: a sunny side up egg able to swirl effortlessly in the pan; and a breaded chicken leg, browned evenly on all sides, and at an internal temperature safe for consumption.

Two experiments were conducted to reproduce the egg as seen in the video. One egg was cooked on the lowest setting available on the range in question, and was allowed to cook for as long as was necessary to produce desired results. The second method was to

separate the egg, and cook and set the whites prior to adding the yolk.

Three experiments were conducted to recreate a breaded chicken leg identical to that shown in the advertisement. The first method was to set the temperature of the range to its second lowest setting (± 250 F), and to allow the chicken leg to cook slowly, turning it as necessary for even browning for a full 60 minutes. The other two tests involved placing breaded chicken legs in pans, and putting the entire pans into the oven to finish the cooking process. One leg was placed in the oven at 350 degrees F. The second was placed in the oven at 400 degrees F. Both chicken legs were cooked for 40 minutes.

RESULTS

Test 1 Variable Experiment: Once the egg was introduced into the pan, it was noted that the very edges of the egg whites began to lift up from the non-stick surface. This process began after the egg had been in the hot pan for 30 seconds. After the 3 minute 30 second cook time, the egg whites were set enough to move the egg around the pan without damaging it. However, the weight of the yolk prevented such free movement, creating small areas in which the underside of the yolk was sticking to the pan. Attempts to dislodge the egg resulted in breakage (see Figure 4). This breakage occurred in all three pans identically, in each of the no-oil tests. Thus, allowing the egg to set enough for ease of movement around the pan, also allowed protein on the underside of the egg to stick, negating the frictionless qualities of the non-stick surface.



Figure 4

Test 2 Variable Experiment: The control experiment with the chicken leg resulted in a typical, well-browned, and safe to consume product. However, the cooking medium (vegetable oil) was primarily responsible for such quality. Because the experimental pans were used with no oil, contact with the surface of the pan itself was the only means by which heat could be conducted from the burner to the target. The cooking medium had the ability to conduct heat nearly half way up the sides of the target product, and also was able to cook evenly around the irregular surface of a breaded cut. Without this medium, the breading tended to burn, and while the leg was turned often, this experiment produced a product that was unbrowned, and undercooked (see Figure 5). The twelve minutes of total cooking time as recommended by ACF for breaded chicken did not produce adequate results using this experimental method. Please see Table 1 for weights, cook times, and internal temperatures of poultry testing.



Figure 5

Test 3 Variable Experiment: This experiment resulted in a critical failure of the product. The non-stick ceramic surface of the OrGreenic fry pan is in no way scratch proof, or otherwise impervious to damage by abrasive agents such as rocks. The test resulted in numerous deep scratches, as well as pits and chips where portions of the ceramic were gouged by such treatment. This type of demonstration is contraindicated, as it will almost certainly result in cookware damaged beyond use (see Figure 6).

Plausibility of the Advertisement, Results: Ignoring conventional cookery, attempts were made to exactly recreate the products as demonstrated in the advertisement. As cooking eggs with no oil repeatedly resulted in sticking and broken yolks, longer/lower

cooking methods were employed to some success. One egg was cooked at the test range's lowest setting for 35 minutes. This resulted in the whites setting completely, and lifting away from the non-stick surface of the pan. However, the weight of the yolk still created small areas of sticking, and would release the egg for only seconds before sticking again.



Figure 6

The second attempt required an egg to be separated, and the whites to be cooked to doneness before adding the yolk on top. This allowed the whites to completely cook without the weight of the yolk causing areas of sticking, and resulted in a sunny side up egg that could be swirled around the pan as demonstrated in the advertisement (see Figure 7). Despite such proof of plausibility, this method resulted in a very undercooked yolk (it being insulated from direct heat by the egg whites) as well as being impractical in any sort of realistic cooking application.



Figure 7

Recreating the breaded chicken demonstration tested methods both practical and impractical. Cooking the chicken leg on the stovetop on very low heat (+/- 250 F) for a full 60 minutes did indeed result

in a product that was safe for human consumption (171 F). However, the majority of the breading was undercooked, and the overall appearance of the product was unacceptable (see Figure 8).



Figure 8

The final two methods designed to recreate the breaded chicken as demonstrated were simply to place the breaded legs in the pans, and to place the pans in a hot oven. According to the Illustrated Good Housekeeping Cookbook (a popular consumer resource), chicken pieces should be baked at 400 degrees F, for 40 minutes (Coulson, 1980). Thus, the first chicken leg was placed in a 400 degree oven for 40 minutes. This process resulted in a final product that was browned (albeit slightly dark) and cooked to a safe internal temperature of 179 degrees F (see Figure 9). In an attempt to create a more golden color on the breading, the second test involved reducing the oven temperature to 350 degrees F. The rest of the experiment was identical to the first, including the 40 minute cooking time. This leg resembled more closely the product as shown in the advertisement. It also had reached an appropriate internal temperature for safe consumption (174 F). See Figure 10. While it can certainly be argued that these final two tests produced chicken legs resembling those in the commercial, the quality of the final product had little, if anything, to do with the cooking vessel. Chicken can be successfully roasted/baked at oven temperatures for just under an hour regardless of the cooking surface employed. The fact that consumable and attractive food items were the result of this experiment neither proves nor disproves the claims of the manufacturer.



Figure 9



Figure 10

Table 1: Results of Poultry Experiments

Cooking Method	Wt. (oz)	Final Temp. (F)	Cooking Time
Control (Oil Fry)	4.7	169 F	12 minutes
Variable 1	4.8	126 F	12 minutes
Variable 2	5.3	120 F	12 minutes
Variable 3	5.5	117 F	12 minutes
Oven 350 F	5.3	174 F	40 minutes
Oven 400 F	5.1	179 F	40 minutes
Rangetop	5.2	171 F	60 minutes

DISCUSSION

While a range of “green” non-stick pans are available to consumers today, including the Classicor Go Green, the Cuisinart GreenGourmet, the EarthPan and the GreenPan. All of these products fail to meet standards required by the laboratory, the

consumer kitchen, or both. One such product, the OrGreenic non-stick pan has been advertised heavily in the media, and touts a non-stick surface that is supposedly scratch proof, and can cook food with no oil. Given the obvious health benefits associated with low-fat cooking, as well as the lack of PFOA in the cookware, the researchers considered this to be a worthwhile product to test. However, like all the other similar products tested by America's Test Kitchen and the Good Housekeeping Research Institute, many of the claims proved false. Durability testing resulted in deep pitting and severe scratching of the ceramic cooking area, and the oil-free cooking tests resulted in badly stuck-on and burned foods. The researchers were able to recreate some of the claims of the OrGreenic manufacturer, and duplicate the food products as shown in the advertisement. However, to do so required either radically impractical methods, or methods that have little or nothing to do with the actual makeup of the cooking vessel. In addition, some of the claims were proven to be utter fabrications.

Although avoiding use of PFOA in the manufacture of modern cookware is laudable, the current grade of ceramic coatings and silicon copolymer sprays are seemingly not durable enough to maintain a frictionless surface amid the rigors of consumer cookery, let alone those of the industry. The above litany of online complaints and laboratory trials is a testimony to this fact. A truly "green" Teflon® substitute has yet to be developed to fill this need. Likewise, the notion of being able to remove excess fats from daily food consumption is a worthy pursuit, but cooking in a vessel free of any lubrication or medium would appear as impossible as it sounds. The OrGreenic non-stick fry pan can safely be added to the list of other poorly performing cookware in this niche market. Consumers should beware of improbable sounding claims.

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International Tourist Satisfaction towards Tourism Activities and Facilities: A Case Study in Mamutik Island, Kota Kinabalu, Sabah, East Malaysia

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ABSTRACT

The main objective of this study is to identify international tourist satisfaction towards tourism activities and tourist facilities in Mamutik Island, Kota Kinabalu, Sabah. Mamutik Island is located in the Tunku Abdul Rahman Marine Park and it can be reached in 20 minutes by boat from Jesselton Point, Kota Kinabalu City. The main tourist activities of Mamutik Island are scuba diving, snorkelling, swimming and marine lives observing. There are various tourist services and facilities provided by the Island management such as jetty, toilet, picnic and barbeque area, sun bathing kits and stalls. However, study on international tourist satisfaction towards these activities and facilities on this island were limited. Therefore, a survey method through questionnaire was applied in this study. There were two sets of questionnaires used for data collection in English and Mandarin languages. A total number of 150 international tourists were surveyed in this study. The findings indicate that majority of the international tourists are satisfied with the tourist activities and facilities of the island. However, there are certain aspects that should be considered by the management in order to increase the level of international tourist satisfaction such as to increase number of toilet and facilities, interesting tourist activities and provide scuba diving equipment at reasonable prices. Thus, this study is significant to indicate how the distinctiveness of tourist activities and quality of facilities can ensure international tourist loyalty to revisit tourist destinations in Sabah.

Keywords: Tourist satisfaction, International tourist, Tourist activities and facilities, Mamutik Island.

INTRODUCTION

Tourism can be regarded as a main economic sector in the world (Al-Ababneh, 2013) providing multiple benefits including social and environmental benefits (Hussin & Kunjuraman, 2014). United Nations World Tourism Organization (UNWTO) estimates that international tourist arrivals will reach 1.8 billion by 2030 (UNWTO, 2011). This is why every country including developing countries including Malaysia pay attention on the development of tourism in order to increase the arrivals of international tourist into the country. Tourism industry in Malaysia can be categorised as at a decent level where the arrivals of tourists to the country are increasing every year. This can be proved by the number of tourist arrivals in the country which has increased by 25.03 million, registering a total expenditure of MYR60.6 billion in 2012 differing from the previous year which only recorded a turnover of 24.71 million tourist arrivals and total expenditure of MYR58.3 billion (Tourism Malaysia, 2014). In order to achieve the UNWTO's vision, tourist satisfaction issues in tourism industry must be taken into serious consideration where the number of empirical studies on tourist satisfaction in tourism industry is very limited (Al-Ababneh, 2013; Hussin & Kunjuraman, 2014) and less empirically documented (Salleh, Othman, Jaafar, & Ramli, 2011).

Whilst, tourism industry in Malaysia has significant impact to the Malaysia's economy (Salleh, Omar, Yaakop, & Mahmmod, 2013), the island tourism has a great potential to be developed and could be considered as an additional source of income to the country. Island tourism especially in Sabah is very attractive and surroundings by peaceful environment found many islands and resorts (Yeoh & Chan, 2000). Moreover, Yeoh and Chan (2000) stated that visitors from Singapore and Scandinavian countries are attracted by the beautiful scenery of island destinations such as sandy beaches and breathe taking clear blue sea. Such beautiful natural resources having in the island destinations, this product could lead the tourists' interests to visit such destinations and makes them to revisit in future (Kozak & Remington, 2000; Salleh, et al. 2011; Witt & Martin, 1987).

This paper provides empirical findings on international tourist satisfaction towards tourism activities and facilities provided by the management of Mamutik Island. Mamutik Island was chosen as a case study in this research and international tourist satisfaction issue is the main focus of this study. Additionally, this paper will conclude by providing some recommendations to the stakeholders in Mamutik Island tourism destination for management improvement. Service quality in the Mamutik Island should be sought in order to identify barriers of tourist satisfaction with the service provided by the management. Empirical study on the service quality in island tourism in Malaysia is very limited and Mamutik Island should be given attention. Therefore, this paper aims to bridge the gap by identifying the international tourist satisfaction towards tourism activities and facilities in Mamutik Island. This study is significant because the tourism industry in Mamutik Island is growing and has the potential to increase the state economy as well as the country economy. Also, this study is significant to indicate how the distinctiveness of tourist activities and quality of facilities can ensure international tourist loyalty to revisit tourist destinations in Sabah. Finally, the implication of this study can be assisted the various stakeholders involved to develop and introducing an appropriate island tourism promotion strategy in Sabah, East Malaysia.

LITERATURE REVIEW

Tourist satisfaction in the tourism industry is an important element that should be examined in order to ensure the economy is sustained. According to Sapari, Shuib, and Ramachandran (2013), satisfaction is an important issue in tourism business because it can determine the success and failures of the business organization. In terms of hotel management setting, Mazumder and Hasan (2014, p. 109) suggested that “customer satisfaction can be a driving force for organizations, which are gearing up to survive in the competitive market”. Bigne, Sanchez and Sanchez (2001) defined satisfaction as a reaction and the outcome of the choice made based on an individual’s emotion and inner-being. On top of that, the reactions

also refer to the focal point that is usually represented by an object that satisfies the users in a particular destination. These reactions also relate to specific moments considered special which are the pre-buying, post-buying and the after effects of using a product or service. Meanwhile, in tourism industry many tourism researchers come up with their own definitions which they refer to their geographical setting. Abdullah, Nordin, Jaafar, Razak, and Marzuki, (2013) adopted Bake and Crompton definition of satisfaction and identified two important elements of satisfaction such as 'what is the expectation' and 'experience of the tourist in the destination'. Moreover, Hussin and Kunjuraman (2014) defined satisfaction as the good feeling when the tourists' demands were fulfilled in the destination.

In the tourism studies, research regarding tourist satisfaction is widely undertaken by the tourism researchers all around the world as they believe satisfaction issue is something unique and should be sought after. Researchers in the field of tourism try to identify and explain the factors that affect the choice of destination as well as the satisfaction of tourist after the trips. Researches regarding tourist satisfaction are intensively conducted by the Malaysian tourism researchers (Abdullah et al., 2013; Hussin & Kunjuraman, 2014; Jussem, Chan, Chung, & Kibat, 2013; Rosniza et al., 2012; Sapari et al., 2013; Salleh et al., 2011) as well as outside of Malaysia (Al-Ababneh, 2013; John & Damiannah, 2003; Kozak, 2000; Lin, 2014; Weiermair, 2000; Tidtichumrernporn, Janasak, Mujtaba, Khunsongkiet, Duangjai, Bhawanantechanon, & Vongkham, 2010).

In Malaysia, for example, a research conducted by Salleh et al. (2011) analyses tourist satisfaction and loyalty towards Kapas Island Marine Park tourist destination. The satisfaction among the tourists was measured using means that is comparing between the expected mean and actual/perception mean of tourist satisfaction. Their research shows that all tourists are satisfied with all service qualities provided as indicated by the value of perception mean of 3.72-4.87 which is higher than the average perception value of 2.5. Meanwhile, the loyalties of the tourist were recorded higher as 78 and 85 per cent of the tourists are willing to revisit and encourage other people to visit the study area. Other studies regarding the

island tourism in Malaysia were also carried out by Abdullah et al. (2013) and Rosniza et al. (2012) who focused on tourism activities in Langkawi Island. Rosniza et al. (2012) studied on tourist perceptions of tourism services in Langkawi Geopark which aims to analyse the perceptions and satisfaction level of tourists with regard to the access services provided by the local and indigenous travel agencies. The findings showed that the price offered by travel agencies made the tourists displeasure. To overcome this problem, the researchers suggested that the price adjustment is among the necessary measure to ensure that tourists are satisfied in using those services. In the same vein, Abdullah et al. (2013) conducted research regarding the service facilities in Langkawi Island and the main objective was to assess the level of satisfaction among the tourists towards the of provision of facilities at three passenger jetty terminals at Kuala Perlis, Kuala Kedah and Penang Island. The result of the study showed that the level of overall satisfaction among the tourists towards providing facilities at jetty terminals to Langkawi Island stands at being less than satisfactory. Also, the results indicate that the level of tourist satisfaction on these provided facilities at the jetty terminals do not influence the tourists making repeat visits to Langkawi Island. From the review above, it could be said that services provided by the management of those islands influence the tourist satisfaction.

In Sabah and Sarawak for example studies on tourist satisfaction were also carried out by the researchers namely Hussin and Kunjuraman (2014), and Jussem et al. (2013). In Sabah, Hussin and Kunjuraman (2014) studied domestic tourist satisfaction with the quality of the homestay services in Mesilou Village, Kundasang, Sabah and the results indicate that all the domestic tourists were satisfied with the services, facilities, and safety of the homestay programme as indicated by the satisfaction mean value of 4.193-4.4157. On the other hand, Jussem et al. (2013) undertook a research regarding relationship with the service quality and tourist satisfaction in Greater Satang Island in Sarawak. The study investigates service quality provided at a Greater Satang Island and tourist satisfaction using SERVQUAL model. The results revealed that majority of the respondents were satisfied with the five

dimensions identified. Lastly, the study provided some suggestions for the management of the island for further improvements.

In addition, researches on tourist satisfaction were also carried out by the researchers namely Kozak (2000), John and Damiannah, (2003), Tidichumrernporn et al. 2010, and Lin (2014) who were from outside of Malaysia. Firstly, John and Damiannah (2003) studied the level of tourist satisfaction on the Kenya National Park, which is the county's main tourist attraction. Interviews were carried out with a total of 200 tourists who visited the park in order to explore the level of tourist satisfaction towards the national park quality. The findings revealed that 70 per cent of the tourists interviewed are satisfied with the national park quality. Second, Kozak (2000) interviewed 1876 of British and German tourists visiting Mallorca and Turkey during the summer 1998. The results showed that the tourists who came from different countries have different satisfaction levels where the British tourists are more satisfied with the attributes performed as compared to the German tourists in both destinations. Third, Tidichumrernporn et al. (2010) study in Thailand indicated that international tourists have a higher level of satisfaction than domestic tourists especially in cultural products. Lastly, Lin (2014) reported that the Chinese tourists who visited Taiwan were most satisfied with transportation, including driver quality, safety and comfortable service.

Based on the previous literature, lack of studies on international tourists satisfaction with regards to tourism activities and facilities in the island destinations in Malaysia with exception of studies (Abdullah et al., 2013; Hussin & Kunjuraman, 2014; Rosniza et al., 2012; Salleh, et al. 2011; Sapari, et al., 2013). In Sabah, therefore, more studies should be done which focuses on tourism activities and facilities in island destinations in order to identify the level of tourist satisfaction with those related issues.

RESEARCH METHODS

This study was conducted in Mamutik Island located at Kota Kinabalu, the capital city of Sabah. Mamutik Island is one of the islands categorised under the Tunku Abdul Rahman Marine Park, a state famous tourist destination. Mamutik Island is located near the city of Kota Kinabalu, Sabah and international tourists can access easily. Beside Mamutik Island under the Tunku Abdul Rahman Marine Park management, there are other nature islands such as Gaya Island, Sapi Island, Manukan Island and Suluk Island. The tourist can easily access this island within 20 minutes by riding boat which is provided by the management of island tourism located at Jesseltown Point, Kota Kinabalu, and Sabah. Mamutik Island is being focused by the tourists regardless of different countries because of the natural resources are highly rich which attracts many tourists to visit (Island of Malaysian, 2012). There are few tourism activities which are famous and become the main attraction to the tourist such as snorkelling, scuba diving, swimming, beach volleyball and jet-ski. Other than that, Mamutik Island is also rich with natural corals as one of the tourist attractions in the island. Aquatic lives in the island are also preserved and tourists do not forget to watch species like Scorpion Fish, Blue-Spotted Ray, Cuttle Fish, Mantis Shrimps, and Hawksbill Turtle to name a few (Sabah Tourism Board, 2013). Mamutik Island is also occupied with facilities and services such as jetty, rooms, toilets, picnic areas, chatting tables and chairs, barbeque area, electricity and water supply. Those facilities can determine the higher level of tourist satisfaction and they feel pleasure in the island during their stay.

The questionnaire method was employed in this survey to explore the level of satisfaction of the tourist visiting to the island. This study is only focusing on international tourists who visit Mamutik Island during the day of the survey. The questionnaires were made up in three languages such as Malay, English and Mandarin languages. The questionnaires consist of three parts, and they are: (1) respondents' background; (2) international tourist satisfaction towards tourism activities provided in Mamutik Island; and (3) international tourist satisfaction towards the facilities in Mamutik Island. Using 5-point Likert-type scales, the items of the

questionnaire was developed based on employed validated scales from the existing literature. Elmore and Beggs (1975) suggested that a five-point scale is as good as any, and that an increase from five to seven or nine points on rating scale does not improve the reliability of the ratings. Moreover, 5-point Likert-type scale is quite popular in previous literature (Al-Ababneh, 2013; Hussin & Kunjuraman, 2014; Jussem et al., 2013; Tidtichumrernporn et al., 2010). Based on the management, tourists attendance record at the Mamutik Island approximately there are 250 numbers of tourists have visited the island per month. In the context of this study, convenience sampling technique was used because it is the most appropriate method for obtaining the exact of the sample ordinance population (Salleh et al., 2013) and suitable for this study for gain data.

Thus, a total number of 200 questionnaires were distributed to tourists at Mamutik Island and the study yielded 150 usable questionnaires which were processed and analysed by using the statistical software package of SPSS version 18. A total number of 150 international tourists were surveyed using a direct administered approach in this study. Field observation is also performed by the researchers throughout the fieldwork at the site in order to gain better understanding regarding the tourist behaviour. Data analysis adopted descriptive analysis such as percentage, mean, and frequency to analyses the raw data.

FINDINGS AND DISCUSSION

Demographic and Travelling Profile of the Respondents

A total number of international tourists participated in this study was 150 as shown in Table 1. Most tourists (64%) were females. As for the age group classification, majority of tourists (28%) age between 45-54 years. In terms of nationality, most of the tourists (44%) came from China. It proved that, the majority of tourists (54.70%) have good education attainment which is college/university level. Regarding the mode of travel to the island, about 72% travelled with family members followed by 13.3% who are husband and wife. Lastly, about 45.3% of tourist visited

Mamutik Island with the motive of vacation and followed by natural attraction of the island constituting 29.3%.

Table 1: Characteristics of Respondents (N=150)

	%		%		%
Gender		Marital status		Age group	
Male	36	Single	14.7	15-24 years	17.3
Female	64	Married	77.3	25-34 years	22.7
		Widowed	8	35-44 years	22
				45-54 years	28
				55 and above	10
Nationality		Education attainment		Mode of travel	
China	44	No school	7	Husband and wife	13.3
Korea	38.7	Primary school	5.30	Family members	72.0
Britain	7.3	Secondary school	20.70	Friends and	12
USA	6.7	College/university	54.70	Colleagues	2.7
Others (Philippines, Australia, Germany, Sweden & Russia)	3.3	Other (skill institute)	18.70	Siblings	
Motive of travel to Mamutik Island		Revisit intention		Recommendation	
Vacation	45.3	Yes	96.7	Yes	89.3
Natural attraction	29.3	No	3.3	No	10.7
Berihadah bersama keluarga	15.3				
Honey moon	6				
Self relaxation	4				

Source: Fieldwork (2013)

International tourists' satisfaction towards tourism activities provided in Mamutik Island Table 2 shows the findings of international tourist satisfaction towards tourism activities provided by the management of Mamutik Island. There are five popular tourism activities currently in practise such as snorkelling, scuba diving, swimming, beach volleyball and jet-ski. The results show that international tourists were satisfied with several tourism activities such as snorkelling and swimming as indicated by the mean value ranges between 3.41- 4.20. In terms of the order it can be categorised that snorkelling (3.894) is the most satisfied tourism activities in Mamutik Island followed by swimming (3.728). Meanwhile, tourism activities such as volleyball and jet-ski are those activities recorded as 'neutral' by the respondents. This is because those activities are not very interesting and enjoyable by the

tourists who visited there. Moreover, the study observed that most of the tourists spent their time in snorkelling and swimming activities rather than scuba diving, jet-skiing and playing beach volleyball.

Table 2: Overall Results on International Tourists' Satisfaction towards Tourism Activities

Types of Tourism Activities	No	Country	N	Level of Satisfaction	Mean	Overall
Snorkelling	1	China	66	Satisfied	3.88	44.0%
	2	US	10	Satisfied	4.00	6.7%
	3	Korea	58	Satisfied	3.79	38.7%
	4	British	11	Satisfied	4.00	7.3%
	5	Others (Philippines, Australia, Germany, Sweden & Russia)	5	Satisfied	3.80	3.3%
Scuba diving	1	China	66	Neutral	3.12	44.0%
	2	US	10	Neutral	3.20	6.7%
	3	Korea	58	Neutral	3.24	38.7%
	4	British	11	Neutral	3.18	7.3%
	5	Others (Philippines, Australia, Germany, Sweden & Russia)	5	Neutral	3.20	3.3%
Swimming	1	China	66	Satisfied	3.73	44.0%
	2	US	10	Satisfied	4.00	6.7%
	3	Korea	58	Satisfied	3.76	38.7%
	4	British	11	Satisfied	3.55	7.3%
	5	Others (Philippines, Australia, Germany, Sweden & Russia)	5	Satisfied	3.60	3.3%
Beach Volleyball	1	China	66	Neutral	3.00	44.0%
	2	US	10	Neutral	3.00	6.7%
	3	Korea	58	Neutral	3.00	38.7%
	4	British	11	Neutral	3.00	7.3%
	5	Others (Philippines, Australia, Germany, Sweden & Russia)	5	Neutral	3.00	3.3%
Jet-Ski	1	China	66	Neutral	3.00	44.0%
	2	US	10	Neutral	3.00	6.7%
	3	Korea	58	Neutral	3.00	38.7%
	4	British	11	Neutral	3.00	7.3%
	5	Others (Philippines, Australia, Germany, Sweden & Russia)	5	Neutral	3.00	3.3%

Source: Fieldwork (2013)

International Tourist Satisfaction towards Facilities Provided in Mamutik Island

Table 3 indicates the types of facilities provided by the Mamutik Island management with the hope that international tourists will be satisfied with those facilities. Tourism facilities are significant of tourist satisfaction (Al-Ababneh, 2013) as they feel comfortable and enjoy their vacation in specific tourism destination. Island tourism highly relies on facilities like jetty where tourists can reach easily and safely to their destinations. Hence, majority of the respondents were satisfied with the jetty facility at the island which recorded mean value ranges between 3.41-3.60. This is a good sign where the jetty facility is one of the elements that could serve to tourist satisfaction. The finding also shows international tourists who came from US, British, Philippines, Russia, Australia, Sweden and Germany were satisfied with the information centre facility at the island which recorded mean value of ranges between 3.62- 4.00. In terms of staff hospitality and tourist invigilator, respondents from China, US, and British were satisfied with the service provided by the management of island. International tourists from US and British were also satisfied with the tourism activity equipment which was provided by the management of island and the recorded mean value was 4.10 (US) and 4.09 (British). Lastly, almost the majority of the international tourists have less satisfaction on toilet facilities at the island. For example, respondents were not satisfied with the toilet facilities as indicated by the mean values namely China (2.08), US (1.80), and British (1.91) because the toilets are not clean, bad smelly, less managed and the small number of toilets among the reasons of dissatisfaction.

The overall findings revealed that majority of the respondents were satisfied with the tourism activities provided by the management of the island and this should be systematically handle in order to attract more tourist to the island. Even though the study results also indicate that tourism activities such as scuba diving, beach volleyball and jet-ski were not in the favour of international tourists because of certain reasons namely health consciousness, expensive price, not entertaining and also risks implementation. In terms of the island facilities, international tourists were satisfied with the

facilities provided by the management except on toilets facilities. Majority of the respondents have less satisfaction and feel displeasure on toilets facilities in the island and this refine other previous study such as Salleh et al. (2011) and, Hussin and Kunjuraman (2014). Thus, toilet issue is an important issue that should be taken into consideration by the management. International tourists were also satisfied with the jetty facility at the island and this finding is not in line with the previous study by Abdullah et al. (2013) where their studies indicated that tourist having less satisfaction on the jetty facility in Langkawi Island.

Table 3: Overall results International tourist satisfaction towards Facilities

Types of facilities	No	Country	N	Level of Satisfaction	Mean	Overall
Jetty facility	1	China	66	Satisfied	3.55	44.0%
	2	US	10	Satisfied	3.60	6.7%
	3	Korea	58	Satisfied	3.55	38.7%
	4	British	11	Neutral	3.18	7.3%
	5	Others (Philippines, Australia, Germany. Sweden & Russia)	5	Satisfied	3.60	3.3%
Tourist information centre	1	China	66	Satisfied	3.82	44.0%
	2	US	10	Satisfied	4.00	6.7%
	3	Korea	58	Satisfied	3.62	38.7%
	4	British	11	Satisfied	4.00	7.3%
	5	Others (Philippines, Australia, Germany. Sweden & Russia)	5	Satisfied	4.00	3.3%
Staff hospitality and tourist invigilator	1	China	66	Satisfied	4.05	44.0%
	2	US	10	Satisfied	4.10	6.7%
	3	Korea	58	Satisfied	3.93	38.7%
	4	British	11	Satisfied	4.00	7.3%
	5	Others (Philippines, Australia, Germany. Sweden & Russia)	5	Satisfied	3.80	3.3%
Well-prepared Tourism activity equipment	1	China	66	Satisfied	3.64	44.0%
	2	US	10	Satisfied	4.10	6.7%
	3	Korea	58	Satisfied	3.55	38.7%
	4	British	11	Satisfied	4.09	7.3%
	5	Others (Philippines, Australia, Germany. Sweden & Russia)	5	Satisfied	3.40	3.3%
Relaxing rooms	1	China	66	Satisfied	4.11	44.0%
	2	US	10	Satisfied	4.00	6.7%
	3	Korea	58	Satisfied	3.93	38.7%
	4	British	11	Satisfied	4.00	7.3%

Types of facilities	No	Country	N	Level of Satisfaction	Mean	Overall
	5	Others (Philippines, Australia, Germany. Sweden & Russia)	5	Satisfied	4.00	3.3%
Public toilets	1	China	66	Dissatisfied	2.08	44.0%
	2	US	10	Very dissatisfied	1.80	6.7%
	3	Korea	58	Neutral	3.05	38.7%
	4	British	11	Dissatisfied	1.91	7.3%
	5	Others (Philippines, Australia, Germany. Sweden & Russia)	5	Neutral	3.00	3.3%
Telecommunications facilities	1	China	66	Neutral	3.00	44.0%
	2	US	10	Neutral	3.00	6.7%
	3	Korea	58	Neutral	2.62	38.7%
	4	British	11	Neutral	3.00	7.3%
	5	Others (Philippines, Australia, Germany. Sweden & Russia)	5	Neutral	3.20	3.3%
Boat services	1	China	66	Satisfied	3.97	44.0%
	2	US	10	Satisfied	4.10	6.7%
	3	Korea	58	Satisfied	3.93	38.7%
	4	British	11	Satisfied	4.00	7.3%
	5	Others (Philippines, Australia, Germany. Sweden & Russia)	5	Satisfied	4.00	3.3%
Food prices	1	China	66	Satisfied	3.97	44.0%
	2	US	10	Satisfied	3.70	6.7%
	3	Korea	58	Satisfied	3.91	38.7%
	4	British	11	Satisfied	4.00	7.3%
	5	Others (Philippines, Australia, Germany. Sweden & Russia)	5	Satisfied	3.80	3.3%
Safety procedures	1	China	66	Satisfied	4.00	44.0%
	2	US	10	Satisfied	4.00	6.7%
	3	Korea	58	Satisfied	4.12	38.7%
	4	British	11	Satisfied	4.00	7.3%
	5	Others (Philippines, Australia, Germany. Sweden & Russia)	5	Most Satisfied	4.40	3.3%

Source: Fieldwork (2013)

RECOMMENDATIONS FOR MAMUTIK ISLAND

Based on the survey, it is recommended that the management of the island should look into the factors that help visitors to decide on

their service quality. The findings revealed that tourism facilities such as telecommunications and toilets facilities recorded a least mean value and these affected their level of satisfaction in the island. These facilities should be improved in order to satisfy the tourists and their expectation during their visit. Telecommunications facilities was also recorded 'neutral' by the respondents in Mamutik Island thus this should be given more attention by the management. Moreover, it is also recommended that the tourism activities such as scuba diving, beach volleyball and jet-ski should be paid serious attention by the management because the results show that majority of the respondents were not sure about the activities in the island. Thus, stakeholders in Mamutik Island must do some demonstration and promotional activities in order to make international tourists understand and try these activities in the future. It is noted that, 10.7% of the respondents do not want to recommend the tourism in Mamutik Island to their people as they feel this is not a good idea and experience. This issue should be taken into consideration by the management and if not it could damage the image of the destination.

CONCLUSION AND IMPLICATION FOR FUTURE RESEARCH

From this research, majority of the respondents have good satisfaction towards tourism activities and facilities in the island except beach volleyball and jet-ski activities as well as telecommunications and toilet facilities. Better quality of services provided by the management will influence the revisit intention of the tourist and this could ensure the tourist being loyal to the tourist destination. Thus, these finding has major implication for owners of the island. If they aim to attract more tourists, then providing better service and increase promotional activities are necessary and winning among the recommended strategies. They also need to emphasize the importance of quality improvement in order to better serve the ever-increasing expectations from the tourists regardless domestic and international tourists. On the other hand, based on the data majority of the international tourists came from China and Korea and this is because they prefer marine tourism and Sabah is the best place for this. Also, the study observed that the arrivals of

international tourists from China and Korea are increasing and this is the good sign to boost our country economy as well as the tourism industries especially in Sabah. Thus, serious proactive strategies should be identified in order to sustain their satisfaction in tourism activities in Sabah and relevant stakeholders must play a role in this regard.

Future research could look into the satisfaction of domestic tourist towards tourism activities and facilities provided in the island as this research is only focusing on the international tourists. Moreover, future researchers could use SERVQUAL instrument as a study instrument which was developed by Parasuraman, Zeithaml, and Berry (1985) as the measurement of the satisfaction of the tourist. It is also recommended that future research could be conducted using Service Perception Questionnaire in order to investigate the expectation of service of tourists before they arrive on the island, and to contrast it against what they actually get when they arrive on the island.

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