

A THEORETICAL FRAMEWORK FOR UNDERSTANDING CHINESE INTERNATIONAL STUDENTS' DECISION-MAKING IN SELECTING REGIONAL AUSTRALIAN HIGHER EDUCATION

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Abstract

In recent years an increasing number of Chinese international students have made a decision to attend regional Australian universities rather than following the large city tendency. However, so far little attention has been paid to this trend. This paper proposes a holistic theoretical framework to interpret Chinese students' decision-making in choosing regional Australian higher education. Inspired by the Engel-Kollat-Blackwell (EKB) model, according to which choices, factors and process are main components in people's decision-making, this paper combines the following three theoretical approaches. Firstly, in cognitive perspective, six choices relating to Australian higher education made by international students (Duan, 1997) provide a theoretical basis to explain core choices of Chinese students about regional Australian higher education. Secondly, using migration theory, Mazzarol and Soutar's push-pull model (2002) refers to factors influencing Chinese students' decision-making of regional Australian higher education. Thirdly, again in terms of cognitive perspective, three classic decision-making process models (Lawley (1993), Duan (1997), and Pimpa (2002)) offer an additional insight to analyze Chinese international students' decision-making process. By integrating these three approaches, the framework develops a multidimensional and systematic theoretical comprehension of Chinese international students' decision-making in selecting regional Australian higher education.

Keywords theoretical framework, decision-making, Chinese international students, regional Australian higher education

1. Introduction

International education is a major sector in Australia. Now almost 30% of all students in Australian higher education institutions are international students (Marginson, 2012). In fact, Australia is the world's fifth largest host country for international students (Australian Education International, 2014d). China remains the top country for international student enrolments into Australian higher education, with 36.1% of all higher education enrolments of international students in Australia in 2014 and leaves other countries far behind (Australian Education International, 2015). According to the latest statistics published by Australian Education International (2014c), the top five universities for onshore international students number for 2013 are located in Melbourne, Sydney and Brisbane; while the five universities with the smallest amount of onshore international higher education students are all in regional Australia. This illustrates that Chinese students do not generally tend to make a decision to undertake higher education courses at regional Australian universities, as they seem to prefer universities in Australian metropolises.

However, a new phenomenon has emerged in recent years - that an increasing number of Chinese international students have made a decision to attend regional Australian universities rather than

following the large city tendency (Australian Education International, 2011a, 2011b, 2012, 2013, 2014b). This new phenomenon aroused this author's curiosity on Chinese international students' decision-making in selecting regional Australian higher education.

What is regional Australian higher education discussed in this paper? There are three definitions currently used in relation to regional Australian universities. Firstly, some Australian universities are considered regional since they are substantially located outside metropolitan centres of a country, such as Charles Sturt University (Allison & Eversole, 2008). The second kind is where the university has a regional campus, established for serving a special geographic region, even in major metropolitan areas, like the University of Western Sydney (Allison & Eversole, 2008). The third type is where the university has significant regional engagement, e.g. La Trobe University in Bendigo (Allison & Eversole, 2008). Only the first type of definition is considered in this paper.

As with many decision-making processes, the complexity of Chinese international students' decision to receive regional Australian higher education cannot be underestimated. It encompasses multiple aspects working simultaneously. It is necessary to systematically and holistically examine these aspects in order to develop a better understanding of all aspects of this decision-making. The consumer psychological theoretical perspective, the Engel-Kollat-Blackwell (EKB, 1973) model, also called Engel-Blackwell-Miniard (EBM), created in 1973 (Engel, Blackwell, & Miniard, 1995), provides a useful framework to explore international students' decision-making departure from their home countries. Widely used in marketing literature to explain consumer decision-making (Pimpa, 2002), this EKB model interprets the dynamic ongoing process of decision-making behavior into several steps. Each step is influenced and shaped by factors and determinants including: individual differences, environmental influences and psychological processes (Engel et al., 1995). Applying the EKB model, three main components in people's decision-making are choices, factors and process. Although the EKB model does not explain international students' decision-making directly, its application shows that, international students' decision-making too, can be viewed as a similar process with a sequence of interrelated choices by seeking out and processing information (factors behind). Thus, the three aforementioned causally theoretical approaches are merged to develop the theoretical framework of this paper. In the next section, this framework looks at, in turn, the major choices of Chinese international students in selecting regional Australian higher education, factors influencing Chinese international students' decision-making of regional Australian higher education, and decision-making process of Chinese international students on regional Australian higher education.

The philosophy underlying this research is located in the constructivist (or interpretivist) paradigm. Constructivism adheres to a relativist position that assumes multiple, apprehendable and equally valid realities (Schwandt, 1994). The position from constructivist (e.g. Schwandt, 2000; Sciarra, 1999) espouses a hermeneutical approach, which maintains that meaning is hidden and must be brought to the surface through deep reflection. This paper incorporates the combining of three theoretical approaches to explain the multiple steps of international students' decision-making, that these generate dynamic interactions, and then result in the final decision. Major choices in decision-making, decision-making factors and the decision-making process have a strong relationship. The international students' decision-making process encompasses a group of inter-related choices, and one choice limits the other. Each choice is influenced by a series of contributing factors. In other words, decision-making factors underlie all choices in the decision-making process. Thus, in the constructivist (or interpretivist) paradigm, the deep analysis of interaction realities in decision-making facilitates a better understanding of - and simplifies - the complexities of international students' decision-making.

Major choices of Chinese international students in selecting regional Australian higher education and decision-making process of Chinese international students on regional Australian higher education have been developed by cognitive perspective (Zhuang, 2013). Taken from a different perspective, factors influencing their decision-making of regional Australian higher education have been informed by migration theory (Liu, 2013). In this author's opinion, cognitive perspective and migration theory are complementary for the purposes of this paper. A theoretical integration of these perspectives enhances the understanding of the research conditions and trends in Chinese international students'

decision-making about the Australian higher education system.

This paper attempts to elaborate on the support for integrating three theoretical approaches previously mentioned, seek to examine and categorize the important relevant theories, and discussions from different representative scholars relevant to these three approaches. It also identify to what extent of the Chinese international students' decision-making in selecting regional Australian higher education has been researched. Finally, the paper gives a useful insight into understanding their decision-making in selecting regional Australian universities.

2. Major choices of Chinese international students in selecting regional Australian higher education

In cognitive perspective, decision-making should be examined in the context of the “personal problem solving process”. In other words, decision-making behaviour occurs in conjunction with some other performance (Heppner, 1981). This decision requires a chain of responses which the person has the ability to immediately and adequately perform (Duan, 1997). There is a growing body of evidence that international students' decision-making of higher education involves various choices rather than a one-step process (Duan, 1997; Jenkins, 2007; Lawley, 1997; Pimpa, 2002; Stafford, 2010; Zhuang, 2013). However, little is known about underlying choice in the decision-making process of Chinese international students coming to regional Australia to study. So far, two scholars, Duan (1997) and Pimpa (2002), respectively using the cognitive perspective approach examined major choices relating to higher education made by Asian international students in Australia. Their findings were that Asian international students made five basic choices prior to studying abroad: the decision to study abroad, choice of country, choice of city, choice of academic course, and choice of university. However, the in-principle decision to undertake higher education was another choice in Duan (1997) 's research. This research adopts Duan (1997) 's six-choice finding which is comparatively more complete.

It is worthwhile to examine core choices of Chinese international students in selecting regional Australian higher education within the reasonable framework of these six major choices, namely, receiving higher education, studying overseas, picking Australia, choosing regional Australia as their study destination, selecting a regional Australian university, and their chosen course. The following provides solid theoretical foundations upon which each choice can be constructed so that fully explains how Chinese international students' choices on regional Australian higher education evolve.

(1) The choice of receiving higher education

From Chinese culture and tradition perspective, receiving higher education is recognized as a crucially important part of Chinese lives. Chinese people often take knowledge seriously and believe a good education will guarantee a better future (Ashley & Jiang, 2000). Supported by China's history, the enthusiasm of Chinese for receiving high education stems from the elites selection ideology (Stafford, 2010). Receiving an education and then passing an exam was the primary way the bureaucratic elite gained and reaffirmed their status (Stafford, 2010). Furthermore, this traditionally has been an important way that someone from a non-elite family could raise themselves (Stafford, 2010).

Moreover, Chinese parents are widely known for their willingness to make sacrifices for the sake of their children's education (Zhang & Carrasquillo, 1995). More than 60% of Chinese families invest one-third of their income in their child's education (Mazzarol & Soutar, 2002), and for a family in mainland China, spending on their child's education is second only to food expenses (Ashley & Jiang, 2000). Meanwhile, based on Confucian heritage, filial piety is the key characteristic in mainland Chinese parent-child relationships (Ho, 1996; Yang, 1996). After parents sacrifice themselves to ensure that their child receives the best education, a child must honor their parents and respect decisions from their parents even if the choice does not fulfill his or her own wishes (Ho, 1996; Li, 2001). This is especially so regarding the decision of receiving higher education.

(2) The choice of studying overseas

The trend of Chinese students' decision to study abroad is impacted by the globalisation and internationalization of higher education. There is a general consensus emerging (Stromquist, 2007) that globalisation is understood as an inevitable pressing social, economic and political force and internationalisation is the process of institutions responding to globalization (Altbach, 2004; Knight, 2004). The current level of globalisation and the internationalisation in higher education is unprecedented (Marginson, 2011, p. 8).

From the mid-to-late 1990s, the number of Chinese studying overseas surged. A considerable amount of literature has been published discussing the causes of this surge. The main reasons were found to be, and probably continue to be: improved economic status (more families having more disposable income), avoiding the competition of higher education in China, avoiding the competition of employment, transferring illegal money to support students and to pay educational fees, and international education promotion (Bai, 2006; Bodycott, 2009; Stafford, 2010; Wu, 2012; Yao, 2004). Currently, a Chinese graduate with an overseas degree is perceived by parents and society to have better skills and employment prospects on returning home (Davey, 2005). Therefore, as in the past, Chinese parents often continue to sacrifice family income, and actively consider overseas education for their child.

(3) The choice of picking Australia to study

International education is a major sector in Australia's export business (Marginson, 2012). Stafford (2010) reviewed the literature on Australian higher education policies on international students and how Australia developed international education into an X-billion dollar industry (e.g. Gillard, 2009). Marginson (2009, 2012) has concluded that Australia is over-dependent on international students, especially their tuition fees, and that "Australia benefits from the global demand for English-language-based education systems. The cost of studying in Australia is cheaper than in the UK or US" (Marginson, 2009, p. 11).

The numbers of Chinese international students are important in Australian higher education (Australian Education International, 2015). A number of recent studies have attempted to understand Chinese and other Asian international student experiences in the Australian education system. These can be divided into three categories. The first category is market-oriented research, commissioned by Australian Education International (AEI) or by IDP Education Australia, in order to provide the education sector with information on why Chinese students want to study in Australia (Stafford, 2010). The second type has been to focus on understanding Chinese students needs after they arrive in Australia (Ballard, 1987; Kember, 2000; Zhang, 2002; Zheng, Sang, & Wang, 2004). The third type of study has concerned outcomes of international education experiences (Cuthbert, Smith, & Boey, 2008). However, Chinese international students' choice of choosing Australia prior to departure from China is a comparatively under-researched area.

(4) Choosing regional Australia as their study destination

This phenomenon of by Chinese students choosing regional Australia to receive higher education is fairly new. The regional choices of Chinese students, so far, have attracted little study. For Chinese international students, difficulties experienced in regional Australia mainly centre on cultural aspects, like Chinese food and groceries which were often not available regionally and students had to travel to purchase them, but that they became used to it over time (Poh & Townsend, 2006). In terms of English, Chinese international students - as a group - were either unfamiliar with the accent and informal language or because locals were speaking too fast (Poh & Townsend, 2006). More recently, there has been research on the role of higher education in regional Australia, including exploring the relationship between regional Australian universities and their multiple communities (Mlcek, 2009), and illustrating the influences of higher education on regional development or innovation (Allison & Eversole, 2008). However, Chinese international students' expectations towards regional Australia study, and their motivations to study there before they come to Australia are not well known.

(5) Selecting a regional Australian university

Regional Australian universities differ from other universities because, in general, their locations, sizes and functions differ from other Australian universities. However, the choice of a particular university in international students' decision-making has not yet received much attention (Duan, 1997). There has been limited research of the comparative advantages and disadvantages of studying in a regional Australian university by international students. Identified advantages of studying in a regional Australian campus are (a) succeeding as a student at a regional Australian campus, since easy access to lecturers and tutors, and concentration more on their study because it is quiet and isolated from distraction; (b) satisfaction with the qualification gained; (c) attainment of graduate qualities (Ellis, Sawyer, Gill, Medlin, & Wilson, 2005). Regional Australian campus has more advantages than disadvantages for international students (Ellis et al., 2005). Besides mentioning the similar benefits of studying at a regional Australian university, Poh and Townsend (2006), and Wills, Kennedy and Yeap (2000) identify the lack of transport and higher order service and facilities. In summary, the reasons for a regional choice are a comparatively neglected area of study.

(6) The course choice

Researching that Chinese students study in Australia seems to be of particular significance, especially studying those who attend very popular courses, such as science, technology, engineering and mathematics (STEM) courses and accounting course among Chinese students in Australia. Of all international student enrolments in Australian higher education in 2013, 24.6% were enrollments in STEM courses, and 52.2% of international postgraduate research enrolments were STEM related courses (Australian Education International, 2014a). Chinese international students were the largest national cohort (25.4%) for postgraduate research enrolments in STEM courses in 2013 (Australian Education International, 2014a). Apart from STEM courses, Chinese students tend to choose accounting courses. Compared with Australian students, although Chinese students possessed relatively lower levels of creativity, they were more likely to major in accounting in Australia (Sugahara, Boland, & Cilloni, 2008). Jackling and Keneley's (2007) research was first one to focus on the influence that the prospect of Australian permanent residence may have on international students studying accounting in Australia. However, the issue of these accounting international accounting graduates is that generally they are not sufficiently "work ready" to be considered for graduate employment (Jackling, 2007). But research on course choice in regional Australian university is lacking.

3. Factors influencing Chinese international students' decision-making of regional Australian higher education

A part of the theoretical framework for understanding the various factors influencing international students' decision-making of higher education is rooted in migration theory, which is derived from demography. The laws of migration is remaining the starting point for work in migration theory (Ravenstein, 1885). In analyzing the internal and international migration, push-pull theory was put forward to explain why population flowing out of one particular area into others and believes that:

There is a positive and a negative aspect to the migration-provoking situation. Migration may occur as a search for an opportunity to improve one's lot in life. In this case the community of destination exerts a "pull" on the migrant. Migration can also occur as a flight from undesired social or economic situations. These situations constitute an expulsive "push" by the community. This "push-pull" theory is an abstraction which is made in order to classify the specific forces at work. (Bogue, 1969, p. 753)

Extending the above theory, Lee (1966) discovered factors in the act of migration including factors associated with the area of origin, factors associated with the area of destination, intervening obstacles, personal factors. In addition, push factors and pull factors both existing with the area of origin and the area of destination (Lee, 1966).

Push-pull theory has been widely adopted in the field of education in order to describe decision-making factors for international students (e.g. Azmat et al., 2013; Bohman, 2009; Cummings, 1984; Duan, 1997; Li & Bray, 2007; Mazzarol & Soutar, 2002; Pimpa, 2002; Wilkins, Balakrishnan, & Huisman, 2012). Before push-pull theory was propounded, although some studies (Radford, Ongkili, Toyozumi, & Association, 1984; Spaulding, 1976) had already started to focus on factors influencing the choice of students' international higher education, it lacked a comparatively integrated theoretical system. The use of push-pull theory broke through this bottleneck. Push-pull theory become popularized in analysing the reasons of students going overseas for higher education from Rao (1979) and Cummings (1984, 1991). One of the most highly cited studies is Mazzarol and Soutar's push-pull theory (2002). They wrote that "push factors' operate within the source country and initiate a student's decision to undertake international study. 'Pull factors' operate within a host country to make that country relatively attractive to international students" (Mazzarol & Soutar, 2002, p. 82). Through a survey of 2485 Chinese, Indian, Indonesian and Taiwanese students who studied in Australian higher education, they identified the presence of four push factors (perceptions of quality; course availability and ability to gain entry; opportunity to learn more about the West; and intention to migrate) and an equal number of pull factors (reputation/profile of the host country and institution; links with alumni; competitive cost and the possibility of part-time work; and the appeal of the physical environment), and they pointed out that students and key advisers (such as parents) do not make decisions in isolation: they may be "pushed" by particular motivations in their home community, but they are also "pulled" by information provided by overseas institutions to attract international student enrolments. These insights became known as the Mazzarol and Soutar's model in later relevant literature.

Although this model is valuable to suggest multi-dimensional explanations of students' decisions and to understand different varieties of international student mobility, subsequent work has sought to refine the model. Push and pull factors are external forces that influence on students' behaviors and choices, but the individual preferences and personal characteristics of students should be taken into account as well (Chen, 2007; Cubillo, Sánchez, & Cerviño, 2006; Lee, 2007; Liu, 2013; Park, 2009; Peyton, 2005; Wilkins et al., 2012). Combining individual value, Liu (2013) extends push and pull factors from unilaterally to bilaterally in the context of Chinese international students' decision to study in the US. More specifically, by extending the Mazzarol and Soutar model, he put forward a new push-pull model. This included pull factors from home country, host country and individual, and push factors from those three aspects as well. Push and pull factors were conceptualised, extended and placed within a social psychological framework in response to students' aspirations and expectations of international education, indicating factors that can be influenced by higher education institutions and their programs, and those which cannot (Azmat et al., 2013). Kim (2011) notes that the global power and inequality in the field of higher education are accounted for in this model.

Notwithstanding the power of Mazzarol and Soutar's model, there continue to be weaknesses. First of all, many studies have failed to fully test or develop the models. In other words, these studies have simply applied the push-pull model with more contemporary data, obtain similar results as before. Also, robustness of instruments in those studies is questionable. Secondly, some new push and pull factors found in American and European studies do not suit to Australian situation or might be weak predictors in the Australian context, especially in the context of regional Australia. Third, a lot of studies present participants with a list of possible reasons to tick or rate as appropriate, but the list is often incomplete. Thus, it limits individual factor expression, and cannot contain all possible reasons. Fourth, existing research has not yet explored factors influencing Chinese international students' decision-making concerning regional Australian universities. Students from different backgrounds might choose international higher education for different factors. Thus, so far the factors influencing current Chinese international students' decision-making are unknown. Fifthly, most existing research fails to explain the relationship between factors and choices, and to reveal the complete decision-making process. Researchers studying Chinese students at regional universities in Australia have not so far identified all choices of international education, and fail to discover what factors influence various choices making and how the factor works in making choices.

4. Decision-making process of Chinese international students on regional Australian higher education

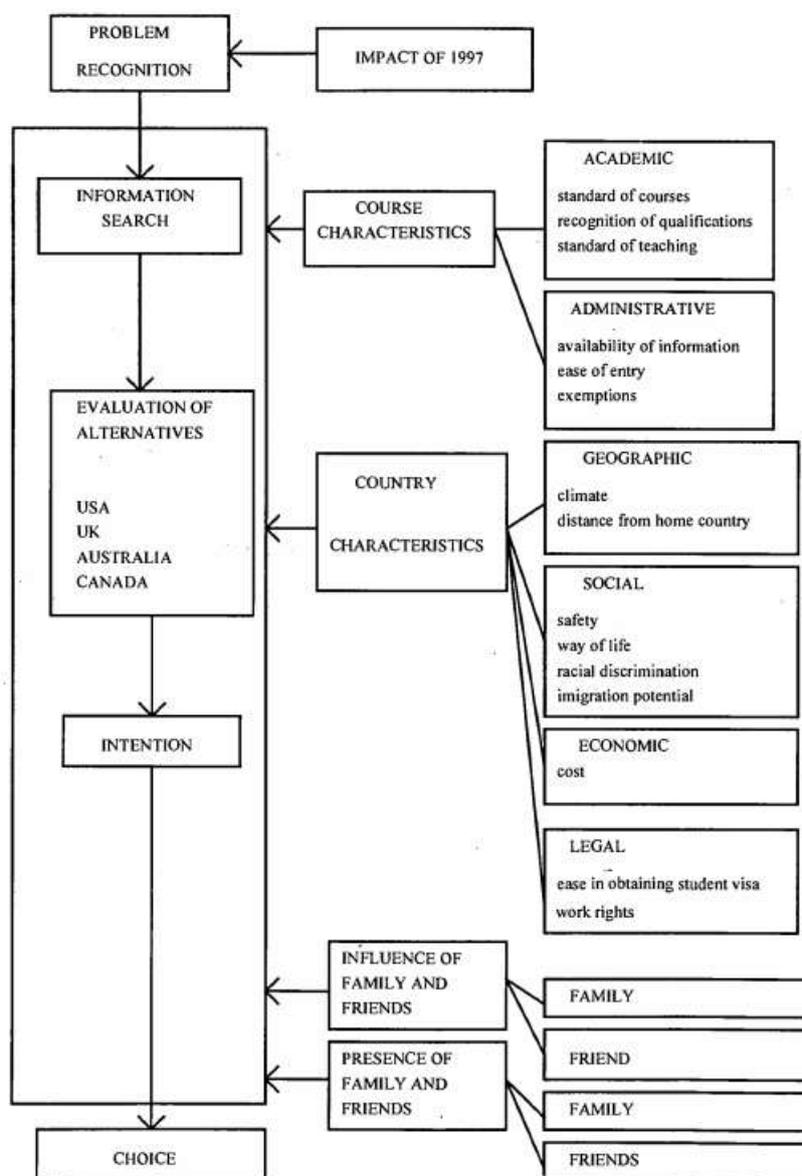
Selection of a college or a university should be seen as a dynamic process which has multiple decision-making stages (Kotler & Fox, 1995; Lawley, 1993). The decision-making of international students should not be regarded as a step-by-step course that individuals move through in a linear fashion, but it should be viewed as a swirl of mental processes that constantly move backwards and forwards within and through many stages of the process, because new information causes perceptions, beliefs and attitudes that the individuals has of their environment to be enhanced or modified (Lawley, 1997). Chapman (1986), Hossler and Gallagher (1987), and Stewart and Felicetti (1991) have postulated further that push-pull theory factors influence students' choices in the decision-making process, and that the decision to study overseas not only is partly ad-hoc, but also involves a process in which the various factors change over time.

Actually, people's decision-making process is a psychological construct and it is the cognitive process of making choices among multiple alternatives (Zhuang, 2013). Edwards (1954, 1961) explains the decision-making theory around two utility concepts, which are subjective value of an outcome and probability or likelihood a particular outcome will occur if a certain decision is made, through a further application of two principles, maximising expected utility, and probability from Bayes's Theorem. Based on Edwards's decision-making process theory, Von Neumann and Morgenstern assume that in a specific sense, human beings are rational, and there are basic subjective quantities that can enter into such a decision-making and utility is measurable (Duan, 1997). Theory has provided the historic origin of most psychological research on decision-making processes (Duan, 1997). Under the guidance of those classic decision-making process theories, a Chinese international student's decision in choosing regional Australian higher education can be viewed as a result of the interaction between the perceived utility of a variety of factors and the possibility of obtaining these factors.

It is usual to consider the decision-making process cognitively. The Nicosia decision making model (1966) explains the dynamics in consumers' decision-making before buying goods or services. In particular, marketing organizations often base their marketing programs, using the Nicosia model: customers through their response to the marketer's action, affects the subsequent decisions of the marketer. The customer-marketer behaviour cycle continues. However, the relevance of this model for this study of Chinese students' decision making to study in Australian regional universities is limited: no prior consumer knowledge or experience with the product exists. For instance, when Chinese students choose a country as their study destination, they may prefer the one they travelled there before, and thus they differ from others without existing knowledge on this country. In contrast to Nicosia's decision-making model, in order to explain the brand choice of a customer facing with various choice alternative within the constraints of limited individual capacities and incomplete information, Howard and Sheth (1969) elaborated a learning process including three levels of decision-making - extensive problem solving, limited problem solving and habitual response behaviour. Each level contained four sets of factors, namely, stimulus input variables, perceptual and learning constructs, response output variables, and exogenous variables. Building on this conceptual framework of Howard and Sheth, Kotler (1976) proposed a model reflecting the "funnel-like" college selecting process of high school students within the US. He proposed that students start with a broad conception of the higher education opportunities open to them, and then narrow their perceptions into a choice of particular institutions through a series of steps. The empirical study of Gilmour (1981) provides some evidence to support Kotler's model. Notwithstanding the merit of this model, it is linear, so it fails to consider that the decision-making process often contains loops. Shocker, Ben-Akiva, Boccara and Nedungadi (1991) employed a sequential process model involving a series of hierarchically ordered sets of alternatives about product selection. The sequence of decision-making is the universal set (all the alternatives available), the retrieval set (a part of the universal set that consumer can access in some way), the consideration set (a subset of the retrieval set) and the choice finally made. As another funnel-like model, it suggests that people often have to make preliminary decisions so that they can narrow down alternatives.

These models, above, provide a comprehensive grasp of decision-making process theories from the cognitive perspective. Therefore, three models of international students' decision-making process upon Australian higher education are possible. The first model is from Lawley (1993) (Figure 1). She investigated factors influencing the choice of Hong Kong students' destination in international higher education. In order to avoid participants' retrospect parameter, the sample chosen was Hong Kong high school students who had not yet selected an overseas country as their study destination. The steps in this decision-making process model include problem recognition, information search, evaluation of alternatives, intention and choice. The focus of Lawley's study was to discover factors rather than the decision-making process. Thus that model only mentioned course and country, rather than all choices in the whole decision-making process. Interestingly, though Lawley's research was not retrospective, most influencing factors she uncovered were found in retrospective empirical studies (Duan, 1997).

Figure 1 Lawley's decision-making process model

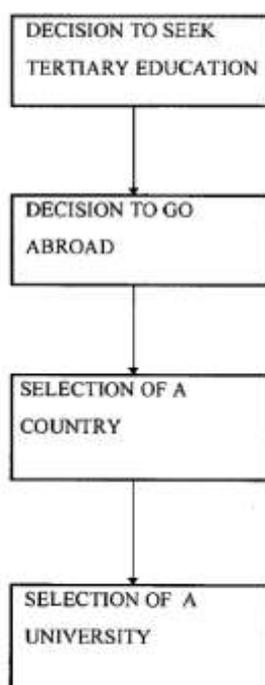


Adapted from "Factors influencing the choice of destination in international education: the case of Hong Kong," by M. Lawley, 1993, *Master thesis, University of Southern Queensland*.

The second model is Duan's (1997) decision-making process model (Figure 2). Here the previously described six choices (choice of receiving higher education, decision to study abroad, choice of

country, choice of city, choice of academic course, and choice of university) becomes merely four choices. This is because the sampled Chinese students -from Hong Kong and Malaysia - did not have consistent agreement regarding the relative importance of (i) choice of study subject and (ii) choice of state. In this study, the dependent variables were three types of influence, and each was from a different source, reference groups, personal values and economic-educational circumstances. In terms of the influence of reference groups and the influence of personal values, the strongest influences lay in the initial decision, to receive higher education. The study also found that reference groups also affected the choices of - in descending order - going abroad, studying in Australia and choosing a particular university (Duan, 1997). When it came to the influence of economic and educational circumstances, the influence of economic expenditure was equally strong for the choices of receiving higher education and studying in Australia, but was less important for the choice of going overseas and the university. In addition, the study found that educational preference had a stronger influence on university choice than that of a particular country. But influence on both choices was weaker than that on the choices of receiving higher education and going abroad (Duan, 1997).

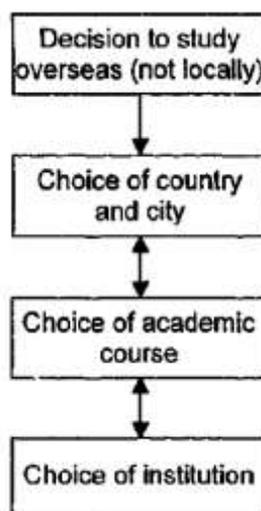
Figure 2 Duan's decision-making process model



Adapted from "The influence of various factors on international students in selecting universities: a South Australian study of Chinese students from Hong Kong and Malaysia," by J.P. Duan, 1997, *Ph.D. thesis, University of South Australia*.

Pimpa's (2002) decision-making process model is another model (Figure 3). His study of Thai international students in Australia, listed the sequential order of only five choices. This schemata did not explicitly include the choice of undertaking higher education. Nevertheless, the study found that the sequence of the choice of country and city together, and the choice of academic course can be converted. Moreover, Thai postgraduate students focused more on the choice of academic program than the choice of academic institution. However the study found that Thai undergraduates believed that the reputation of a university was more important than academic course. The study found that family, peers and agencies were positively relevant to these five choices in the decision-making process.

Figure 3 Pimpa's choice order of international education



Adapted from “Marketing of international education: the influence of normative referents on Thai students’ choices of international education,” by N. Pimpa, 2002, *Ph.D. thesis, Monash University*.

Influenced by the cognitive perspective, these three studies are the only relevant research in Australia to analyse the decision-making process of international students studying in Australian higher education. It is found that the sequential position of a choice reflects the importance of that choice, and is as a result of different factors. In this approach of the theoretical framework, limitations are recognized. One major weakness of models is that not all six choices have determinate positions on the choice sequential order. The second disadvantage of these studies is that their applicability to explain the choices of the new generation of international students from China since about 2003. Furthermore, these studies did not analyse mainland Chinese students, the majority among international students in Australia. The third limitation is that Duan’s study and Pimpa’s study did not explicitly include students at regional Australian universities. Accordingly, the relevance of their findings for regional Australian universities is unknown.

5. Discussion

For developing a theoretical comprehension of Chinese international students’ decision-making laying behind the new phenomenon that in these years an increasing number of Chinese international students choose to undertake regional Australian higher education, the above interpretative framework is established. Based on the philosophical guidance of the constructivist (or interpretivist) paradigm, inspired by the EKB model and combining complementary perspectives (cognitive perspective and migration theory), major choices in decision-making, the factors influencing decision-making, and the decision-making process as three key approaches intertwine together so as to form this holistic theoretical framework to understand Chinese international students’ decision-making. From the cognitive perspective, there is the discovery of the major choices relating to higher education made by Asian international students in the Australian context (Duan, 1997). Using this approach, the decision of regional Australian higher education made by Chinese international students is constituted by six major choices: receiving higher education, studying overseas, picking Australia, choosing regional Australia as their study destination, selecting a regional Australian university, and their chosen course. Exploring the choice of undertaking higher education incorporates the emphasis afforded higher education by Chinese tradition and culture. The theoretical framework also includes consideration of the choice of studying abroad referring to the theory of the higher education globalisation and internationalisation. The choice of picking Australia to study is closely related to higher education commercialisation. The theoretical framework also incorporates motivation theory, especially in relation to the choice of regional Australia. The choices of regional Australian university and course

should consider the particularity of regional Australian universities and courses in them. Rooted in migration theory, Mazzarol and Soutar's push-pull model (2002) through describing push factors within the source country and pull factors within the host country, provides a theoretical approach to interpret factors influencing Chinese international students' decision-making of regional Australian higher education. The proposed theoretical framework will overcome the limitations and lack of relevance of these earlier models and studies. Stemming from a series of decision-making theories in the cognitive perspective, three classic models (Lawley's decision-making process model (1993), Duan's decision-making process model (1997), and Pimpa's decision-making process model (2002)) of international students' decision-making process upon Australian higher education are theoretically strong in offering a clear and systemic guidance in the decision-making process of Chinese international students on regional Australian higher education. Combining these three decision-making process models together will effectively overcome the limitations in each model, and elaborate the multidimensional interaction among choices and factors and the sequential orders of choices in Chinese international students' decision-making.

In terms of the theoretical significance, this framework extends the theoretical rationale which the cognitive perspective and migration theory perspective have on academic achievement, in the area of Chinese international students' decision-making in selecting regional Australian higher education. At the same time, these theoretical approaches in this framework broaden their focus to include the research evidence offered by EKB model. Moreover, this theoretical framework potentially contributes to forming the Chinese international students' decision-making paradigm on regional Australian higher education selection through its theorization of the process involved in the choices of international education and influencing factors, and revealing the underlying mechanism in the decision-making process. In the meanwhile, this holistic theoretical framework unpacks the predictors of Chinese international students' decision-making in selecting regional Australian higher education, as this is an under-researched area and no study discusses this topic, especially combing two components together, Chinese international students and regional Australian higher education. Although substantial literature has merely attempted to understand the overseas higher education of Chinese international students, higher education in regional Australia and regional Australian universities are explored by very limited scholars.

In practical terms, this theoretical framework is firstly valuable for regional Australian universities especially those in regional Australia seeking to understand what international students expect towards them. Secondly, the theoretical framework will be useful for regional Australian universities through understanding their own development mechanisms, to strengthen their better survival in competition with other traditionally more-prestigious large-city Australian universities. Thirdly, this study might contribute to the better decision-making for future Chinese international students who intend to study at Australian universities and help them make more better-informed choices. Fourthly, the theoretical framework will hopefully provide researchers in the relevant research areas with a referential and logical theoretical framework, and future related researches can be constructed upon it. Fifthly, the theoretical framework will potentially improve the understanding of Chinese international student perceptions of the Australian higher education system, and makes a distinct contribution to foster Sino-Australian higher education relationship, and promote the globalisation and the internationalisation of higher education.

In any research it is inevitable that parameters may narrow the scope and dimension of the research. This study is no exception. Understanding Chinese international students' decision-making in selecting regional Australian higher education can occur in a variety of perspectives. This research provides a useful starting point for the development of theoretical frameworks, but only stands in two perspectives, the cognitive perspective and migration theory. Although from these two perspectives this theoretical framework hopefully explains international students' decision-making from endogenous and exogenous aspects of the perceptions of students and other stakeholders, other different perspectives may lead creativity to interpret the same topic. In addition, the empirical support of the suggested framework is not offered in this study. It is intended that future studies could apply this theoretical framework into practice to contribute to a better understanding of the interplay

among choices, factors and process in Chinese international students' decision-making. Future studies by other researchers in this area will test the theoretical framework's validity and practical effectiveness.

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