Sustainability issues in transnational education service: A conceptual framework and empirical insights

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Abstract

There are many transnational education (TNE) services have been operating successfully to export education. However, many TNE programmes and partnerships have also been terminated. Extant literature shows that TNEs' sustainability is under-researched. Specifically, TNEs' sustainability from the contexts of strategic partnership considerations, all recognised TNE activities and particular sustainability indicators is unexplored. This conceptual paper analyses literature on TNE partnership issues, the standardisation-adaptation (StandAdapt) concept of international business strategy and sustainability issues, with an aim to establish an initial route to develop TNE services that would sustain its business viability, centred on transnational market-specific conditions. The analysis suggests that there is a consistent interrelationship between different sustainability indicators and market orientation, which has implications to incorporate sustainability issues into TNE services and transnational strategies. An initial framework is proposed to develop TNE services, in order to sustain TNE businesses. Some empirical insights are developed in support of this conceptual framework. Further research areas are discussed.

Keywords: Transnational education; business sustainability; transnational business, standardisation; adaptation; market orientation; partnership strategy.

Introduction

The global international education industry (IEI) has been growing significantly since the beginning of the last decade (Education at a Glance, 2013). 'A 2008 study reveals that the demand for higher education is expected to grow from the current 99 million students worldwide to 414 million by 2030' (European Parliamentary Research Service, 2013, np). To ensure a healthy stake from this already established but still growing global IEI, higher education institutions (HEI) from various established and emerging IEI competitive countries are promoting their onshore education to international students (Education at a Glance, 2013). Beside the onshore export of higher education, HEIs also export education to various offshore transnational markets, which is commonly known as transnational education (TNE).

Because of the increasing demand of TNE (Healey, 2013), the number of transnational students has increased in recent years, however a number of transnational programmes and transnational partnerships have also been terminated (Sutrisno and Pillay, 2014). "The

challenge of increasing offshore learning and training services will require to consider how it can diversify its in-market (transnational) activities and service delivery models" (Unlocking the Potential, 2015, p. 2), where sustainability in transnational programme delivery is a key concern (Chaney, 2012). Again, transnational market orientation is imperative for TNEs' sustainability (Edith Cowan University, nd). Therefore, TNE strategy would generally be concerned in developing insights on transnational markets, with a focus to formulate strategies that could sustain or extend the business viability of TNE activities through transnational market focused efforts to serve the transnational stakeholders needs, wants and expectations.

This conceptual paper argues that sustainability issues in TNEs' business are under-researched. Here, sustainability refers to TNEs' business sustainability, in order to survive and prosper, with possible growth in TNE business. Sustaining TNE business partnerships and TNE programmes is one of the key concerns in the contemporary TNE operations. (Sutrisno and Pillay, 2014). However, the reviewed literature in TNE business demonstrates that TNEs' broader business sustainability issues, based on the key strategic partnership considerations to form TNEs, all recognised TNE activities, and particular sustainability indicators for business ventures is an unexplored area. Therefore, this paper discusses the background literature related to this research gap, and concisely analyses literature on TNE partnership issues as strategic key considerations to form a TNE, the standardisation-adaptation (StandAdapt) concept of international business strategy and business sustainability issues. The aim of such discussions and analyses efforts is to establish an initial route to develop TNE strategies that would sustain or extend the business viability of the recognised TNE activities in the long-run, centred on the transnational market-specific conditions. Here the focus of TNEs' sustainability is centred on the broader business sustainability issues, such as commercial survivals and gains through profit/revenue generation, and contribution to society and environment (Dyllick and Muff, 2015). The recognised TNE activities are discussed in the 'discussion and research direction section' of this paper.

The synthesis of the analysed literature suggests that there would be a potential interrelationship between different sustainability indicators and market orientation, e.g. understanding target market-specific conditions. Such interrelationships would be useful for market orientation or understanding the target market conditions, as well as for incorporating sustainability issues into the strategy, in relation to those market-specific conditions.

Following this synthesis, a simple framework is proposed to develop TNE strategies, with an aim to sustain TNE businesses, in relation to the strategic partnership considerations, all TNE activities and their StandAdapt strategies. However, some empirical insights are developed in support of this initial conceptual framework; it needs to be supported by more empirical findings to generalise its impacts.

To explore the relevant scholarly views from extant literature, this conceptual paper pursues an inductive constructivist explanation method to validate arguments, where findings evolve rationally from the analysed scholarly views (Eisenhardt, 1989; Yin, 1994). Therefore, this paper discusses the relevant literature/views through the progress of the discussions, as an inductive approach, to clarify findings with respect to the aim of this study (Hallier and Forbes, 2004; Glaser and Strauss, 1967). The information and facts that are discussed in this study to develop arguments are sourced from:

- scholarly published articles on relevant research domains, which are predominantly post 2000 literature;
- the relevant research domains include international business, transnational education, strategy and partnership issues and business sustainability;
- contemporary industry data from different TNEs and different TNE markets;
- industry data are sourced from the online data sources, such as TNEs' websites and online media.

Literature review

Transnational education

Australian Department of Education, Science and Training (2005) defines TNE,

> as offshore or cross-border education…refers to the delivery and/or assessment of programs/courses by an accredited Australian provider in a country other than Australia, where delivery includes a face-to-face component...As distinct from education provided in a purely distance mode, transnational education and training includes a physical presence of instructors offshore, either directly by the Australian provider, or indirectly through a formal agreement with a local institution/organisation. (p. 6)

'Transnational education…refers to an arrangement in which a student studies for an award granted by a university based in a country other than the country the student is studying in' (Global Alliance for Transnational Education, 1997, as cited in Ling et al., 2014, p. 47). Scholars also support this broader definition of TNE (McBurnie and Ziguras, 2009; Burgess

and Berquist, 2012), which includes distance education is one of the forms of TNE (Healey, 2015).

(please insert Table 1 here)

The drives and motivations for offering TNE are summarised as (Healey, 2015):

- develop an international brand (Wilkins and Huisman, 2012);
- expand operational capacity (Verbik and Merkley, 2006);
- motives for higher revenue (Bennell and Pearce, 2003; Knight, 2007);
- government's encouragement to support export and contribute to economy;
- to secure a healthy stake from the growing global higher education industry (European Parliamentary Research Service, 2013) through concentrating to one or few cross-border markets, without managing several global markets.

Transnational education strategy

(please insert Figure 1 here)

In this sub-section, the key issues that a higher education institution (HEI) could consider to strategise their TNE operation are briefly discussed. In all forms of TNEs, including direct international branch campus (DIBC) and franchising involve partnership, either with a transnational academic partner or an agent, such as an agent responsible for DIBCs' infrastructure. Therefore, these structured strategic considerations to form a TNE partnership as described in Figure 1 is selected as appropriate to understand the underlying arrangements of TNEs. Since, these key considerations to form TNEs are developed based on a number of different dimensions of organisational development literature on partnership theory, which are studied extensively from diverse organisational setting outside the HEIs, but appear as appropriately applicable to HEIs, as a starting point to consider the key strategic issues to form a TNE (Healey, 2015).

(please insert Table 2 here).

In general, the key considerations of Table 2 appear as useful to evaluate the alternative options and take a decision to form any of the TNEs as described in Table 1.

Transnational market conditions, the standardisation – adaptation concept and the extent of transnational education's strategic market orientation

Based on transnational market-specific condition(s), the extent of strategic market orientation that a HEI could consider in a transnational market is the concern of this sub-section. In the

postmodern business strategies, the terms 'international', 'multinational', 'global' and 'transnational' businesses' strategies are sometimes used interchangeably (Hoare, 2006). Thus, it may be confusing to understand the appropriate terms from the specific perspectives. Simply, international business strategy is referred when organisations strategise for more than one country; where multinational strategy comprises application across different countries, with country-specific strategic autonomy based on the local conditions (Stonehouse et al., 2004). In global business, companies have operations across the world, with highly coordinated centrally-managed strategies, and less country-specific autonomies. Transnational business operates across national boundaries, with varying extents of strategic coordination, integration and differentiation between the strategies of the corporate headquarter and the country-specific strategies, relying on the target market-specific conditions (Stonehouse et al., 2004). Therefore, transnational business strategy is a form of international business strategy, which focusses on premediated strategic equilibriums of multinational and global strategies, depending on a considerable tactical standardisation of exporters' core policy and country-specific adaptation based on the market conditions. From this context, transnational business strategy is further than international and beyond global, where the extent of operations, strategy and behaviour are key features (Sirkeci, 2013).

Recognising the appropriate scope and extent of collaborations is the key to success in transnational business (Sirkeci, 2013). Therefore, once a particular form of desired issues are discussed as described in Table 2, and settled between the partners to form a TNE, or in between of such discussions, another key concern here would be to recognise the appropriate scope and extent of strategic market orientation, based on the condition(s) of the transnational market that the TNE partnership will consider to sustain their business through developing and implementing market-specific TNE strategies.

On the one hand, in the global world, because of higher mobility of people (Sirkeci, 2014) and ease of communication, consumer preferences become homogeneous. Thus, they are satisfied upon consuming standardised products of global corporations (Dicken, 1998). The contemporary affluence of communication, e.g. social media generally enables people from around the globe to develop a homogeneous preference on a particular topic. For example, 'consumers tend to use information from their existing networks in social networking sites that they trust and share common interests and activities' (Chu, 2009, p. 52). Indeed, the contemporary web 2.0 and various social media platforms extend the opportunities for mass

production (Rayna et al., 2015). Since, the "posts, photos, etc. (in social media) are generally meant for more than one person" (Rayna et al., 2015, p. 5). Moreover, companies social media platforms enables to develop greater insights on customers' perceptions, which in turn provides better opportunities to proffer customised offerings (Larivie`re et al., 2013). Thus, the homogeneous global consumer culture propensity drives standardisation in transnational business strategies. On the other hand, the differences in cultural philosophies between different cultures that engrained in people's mind in childhood reflects through their decision making process, and appear as vibrant dimensions of differences in human behaviour from culture to culture (Steenkamp and Kumar, 1999; Steenkamp, 2001). Therefore, even a trivial cultural difference between markets could lead to an opposing perception on a particular issue in different markets (Cannon et al., 2010; Yoo et al., 2014). Therefore, local market adaptation would also be a dominant success factor in transnational business strategies.

Again, in terms of market innovation, the 'one size fits all' concept does not work in different regions and countries (Todtling and Trippl, 2005). Thus, standardising a best practice to implement the practice across different markets would be discouraged. Similarly, considering the higher costs of operations in transnational businesses, adaptation would also be discouraged. Therefore, companies and their transnational partners need to decide whether they will standardise all of their strategies, adapt all of their strategies based on the transnational condition(s), or go for a balanced strategy in between the standardisation and adaptation concepts for their transnational market. Finding the best combination of standardisation and adaptation in transnational strategy to enhance collaboration between transnational partners usually relies on the market-specific conditions.

Based on those market-specific conditions, many scholars suggest to simultaneously implementing standardisation and adaptation (StandAdapt) strategies in transnational business, with a harmonised interdependence between the strategies to find out the best-suited equilibrium for the transnational market (Choi and Jarboe, 1996; Hennessey, 2001; Theodosiou and Leonidou, 2003; Ang and Massingham, 2007; Ruževičius and Ruževičiūtė, 2011; Rajabi et al., 2015). However, to the extent of the author's knowledge, there is no study that analyses the StandAdapt concept to develop insights on transnational market conditions from the perspectives of the extent of TNEs' strategic market orientation, particularly from the contexts of business ventures' diverse sustainability indicators, in order to develop TNE

strategies that would sustain or extend the business viability of all recognised TNE activities in the long-run. Consequently, the strategic market orientation of a TNE, as an international business and its strategies needs more research, which should be centred on seeking the equilibrium between the StandAdapt approaches to sustain the TNE business, based on the transnational market-specific conditions. From this context, a question would be relevant, i.e., how HEIs could envision equilibrium in the StandAdapt decision for their TNE strategies that consider the sustainability issues of a TNE business/partnership.

Sustainability and transnational education strategy

The term 'sustainability' has generally been referring and studying on a wide-ranging developmental issues, especially from environmental, socio-economic, political, industrial, standard of living, agricultural, organisational and many other perspectives. Accordingly, there is a wealth of extant sustainability literature from numerous contexts, although, no study is identified that concerns the sustainability issues of the key strategic partnership considerations to form a TNE, in relation to all recognised TNE activities and its StandAdapt strategies. "Business sustainability is often defined as managing the triple bottom line – a process by which firms manage their financial, social and environmental risks, obligations and opportunities. These three impacts are sometimes referred to as people, planet and profits" (Network for Business Sustainability, 2012; as cited in Dyllick and Muff, 2015, p. 9). Since, in general, TNEs are operated in transnational markets as a profit-driven business venture, this study attempts to develop insights from all these three issues of business sustainability to analyse TNE strategies that would sustain the recognised TNE activities' business viability in the long-run. Brief examples are illustrated in the 'Triple P's (people, planet and profit) in TNEs' sustainability' sub-section. The rich sustainability literature from different industries and diverse socio-economic perspectives provides an initial route to conceptualise sustainability principles to design TNE StandAdapt strategies, in order to sustain TNEs, based on the market-specific conditions. Since, 'sustainability is…one of the key success factors in the long term business strategy' (Kuosmanen and Kuosmanen, 2009, p. 235), conceptualising an initial sustainability root for TNE business strategy is imperative for TNEs' long-term business success.

(please insert Table 3 here)

Some of the indicators of Table 3 could be considered for both as sustainability driving and mediating indicators, such as 'minimising and minimised business costs and risks'. Based on the transnational market conditions, the HEIs could consider the particular sustainability indicators to incorporate into their TNE StandAdapt strategies. Also, it can be organised in a reverse way. For example, how HEIs will learn about their transnational market's business environment and market-specific conditions to consider a particular sustainability indicator to incorporate into their StandAdapt decision. In both cases, such sustainability indicators would be useful to understand the relevance of a particular sustainability indicator to a recognised specific transnational market condition, as well as to recognise an exact transnational condition, based on a sustainability indicator. Examples are illustrated in the 'discussion and research direction' section.

Types of TNE activities and the research gap

Transnational strategies simplifies the interdependence between companies, countries, and other players in the socio-economic fields, where the core variables are flexibility and reciprocity of practices and forming business across borders, however many issues, in relation to transnational businesses and markets are yet to be explored (Sirkeci, 2013), including the sustainability issues of TNEs. The extant TNE business strategy literature as identified and described in Appendix 1 are mainly centred on:

- TNE teaching experience and teachers' training and development;
- overall quality assurance in TNE, including the design and delivery of curriculum, assessment and other services;
- cultural issues in TNE;
- transnational students' experience, perceptions and satisfaction;
- types and general policy of TNE and its opportunities and threats;
- motivations and growth of TNE;
- TNE partnership and co-creation;
- regulatory aspects of TNE.

Healey (2015) discusses the six key strategic partnership considerations as described in Figure 1 to classify TNEs' partnerships in terms of their business risks. Table 3 exhibits that 'risk' is just one of many issues that should be considered to sustain development initiatives. Therefore, TNEs' overall sustainability issues are elaborately not considered in Healey's study from the diverse perspectives of sustainability indicators, as it focuses only on the 'business risks' indicator, and does not discusses on other sustainability indicators. There are very few studies on TNE strategy and their sustainability are identified, which discuss TNEs'

sustainability from the perspectives of (Lenn, 2000; Palaskas et al., 2010; Wals & Blewitt, 2010; Monteiro & Sharms, 2012; Healey, 2015):

- quality assurance;
- curriculum;
- assessment and
- business risks.

Appendix 1 shows that these areas, where TNEs' sustainability is studied, are actually very few TNE activities among all recognised TNE activities. The TNE activities described in Appendix 1 are actually the 'scope' and 'processes for TNEs, under the six strategic considerations to form a TNE as described in Figure 1. In particular, no study is identified that concerns the sustainability issues of a TNE business from the perspectives of key strategic partnership considerations to form a TNE, in relation to all recognised TNE activities and its StandAdapt strategies, based on the transnational market-specific conditions. Following this research gap, this study aims to understand the influence of the sustainability indicators and transnational market-specific conditions to decide about the key strategic considerations, various TNE activities and StandAdapt tactics that construct the overall TNE strategy.

Proposed model and proposition development

(please insert Figure 2 here)

The last part of the sub-section 'sustainability and transnational education strategy' discusses that the sustainability indicators would be useful to understand the relevance of a particular sustainability indicator to a recognised transnational market-specific condition. This part also discusses that the sustainability indicators would also be instrumental to recognise an exact transnational condition, based on a sustainability indicator. The two double-headed arrows of Figure 2 indicate these interrelationships. 'An indicator is something that helps you understand where you are, which way you are going and how far you are from where you want to be' (Roberts and Tribe, 2008, p. 577). For example, 'transcultural understanding and cooperation' as a sustainability indicator (Tanguay et al., 2013) generally helps a TNE to realise their current level of transcultural understandings, and what and how transcultural conditions could be adapted to the TNE strategies to prolifically deal with that transcultural issues. Therefore, a proposition is derived as:

- P1: sustainability indicators are useful to understand transnational market conditions.

Market orientation is an important basis of business sustainability, thus, 'the company's market-oriented approach to sustainability has resulted in the receipt of numerous awards as a leader in sustainability' (Crittenden et al., 2011, p. 81). 'Kohli and Jaworski (1990) define market orientation as the organization-wide generation of market intelligence that pertains to current and future customer needs, dissemination of intelligence across departments, and organization-wide responsiveness' (Hurley and Hult, 1998, p. 43). Such a generation of market intelligence requires continual monitoring of market conditions, relevant to customers, competitors and market environments to develop and offer products and services that are expected and accepted by customers (Kohli and Jaworski, 1990; Narver and Slater, 1990; 1994; Shams, 2013). Such a continual monitoring of market conditions is central to adapt with the market conditions (Hurley and Hult, 1998), based on an establishment of market conditions' learning orientation, where market orientation and learning orientation are inherent and inseparable (Slater and Narver, 1995; Nasution et al., 2010). Since, market orientation as a business environment learning mechanism (Nasution et al., 2010) plays an important role for business sustainability (Crittenden et al., 2011); a proposition is derived as:

- P2: understanding transnational market conditions is useful to integrate sustainability indicators in TNE strategies.

Not only are cultural and other differences (in market conditions) very much still in evidence, but…(applying) a single…(strategy) one way everywhere (in different transnational markets) can scare off customers, alienate employees, and blind a company to its customers' needs. (Vrontis, 2003, p. 284). Also, in terms of strategy, it is well evident that 'one size fits all' concept does not work in different regions and countries (Todtling and Trippl, 2005). Therefore, it is argued that the target market environment and relevant stipulations should be reflected through business considerations, decisions and strategies (Lipman, 1988; Czinkota and Ronkainen, 1998; Vrontis, 2003; Samiee, 2013; Hohenthal et al., 2013; Cant et al., 2015; Kistruck et al., 2015), which suggests two other propositions as:

- P3a: transnational market conditions influence the TNE StandAdapt decision;

- P3b: transnational market conditions influence the key strategic considerations to form a TNE.

Discussion and research direction

Following the reviewed literature, the key activities of a TNE operation are recognised as:

- curriculum development and delivery;
- assessment of exam papers, assignments, projects etc.;
- selection of TNE courses/disciplines and level of studies (e.g. preparatory/pathway, undergraduate, postgraduate, coursework, research studies, supporting courses e.g. English language);
- staff recruitment and training;
- student recruitment;
- cultural management e.g. understanding the transnational culture and adjusting managerial issues where required;
- management of students' experience and expectation. For example, developing insights on students' perceived experience and realigning education service provisions, if feasible;
- motivations for TNE, such as considering the issues that drives motivations to operate TNEs, which are described under the 'transnational education' sub-section;
- risks in TNE, e.g. considering the business risks;
- partnership issues, e.g. deciding on a specific partnership form among the alternatives, which are discussed in Table 2;
- regulatory issues. For example, considering any particular regulatory issues, if they are imposed by the transnational government and market bodies, e.g. external quality assurance agencies of higher education to offer TNEs in a particular transnational market;
- communication and promotional issues;
- overall quality control/assurance.

Appendix 1 displays these TNE activities. The concern of this study is not to recognise the extent of a particular TNE's business sustainability, but to understand whether the business sustainability indicators that were studied in other industries, can be considered and integrated in TNE strategies. The focus of such a consideration is to possibly develop insights on the sustainability indicators and their interrelationships with the relevant transnational market conditions, in order to decide about the TNE strategic considerations and StandAdapt strategies. The issues that would be useful to understand, in order to develop such insights, in relation to various TNE activities, an analysis should clarify few matters, which are described in the following sub-sections with relevant examples.

Influence of sustainability indicators

A relevant issue would be to understand whether a sustainability indicator influences a strategic consideration or StandAdapt decision that recognises and considers any

transnational market-specific condition. For example, whether staff 'performance management' and 'training' as sustainability indicators help to recognise and consider the transnational beliefs, ideas, impressions, expressions and similar other views to strategise transnational employees' performance management and training programmes. Also, to understand whether a StandAdpt decision is influenced to formulate the 'premediated TNE vision, missions, values and culture' as a sustainability indicator, in relation to the transnational environment, in order to successfully deal with those market conditions. For example, the framework to achieve Curtin Singapore's (the transnational campus of the Curtin University, Australia) culture is developed and approved by the Curtin Singapore (2015) Executive Committee. Again, 'reducing business risk' is a sustainability indicator. In order to minimise business risk, the issue would be to understand whether the transnational matters that influence decision making are considered. Since, scholars claimed that 'while individuals perceive risks and have concerns, it is culture that helps to interpret risks' (David et al., 1998; Dake, 2010). As a consequence, if individual perceives risk, in support of their individual cultural understanding, then the proposition 1 could be confirmed, if a TNE attempts to minimise business risk in their transnational market

- by considering the transnational matters, e.g. transnational business regulatory issues, target markets values and expectations etc.;
- based on the consultation with the TNE's transnational staff and other transnational stakeholders;
- in order to influence decision making e.g. providing TNE services, in accordance to the transnational market regulations and expectations, with an aim to avoid/minimise a prospective failure (business risk) to achieve share in the transitional market.

From this context, if TNEs analyse their transnational business risks from the lens of their transnational stakeholders, in order to minimise or neutralise the risk, then 'reducing business risk' as a sustainability indicator would be instrumental to explore transnational market conditions, e.g. regulatory issues and market's expectations, which provides insights to proposition 1.

Influence of transnational market-specific conditions for market orientation

Another issue would be to understand whether any particular transnational condition influences a strategic consideration or a StandAdapt decision that helps to incorporate sustainability indicators into the strategy. For example, to understand whether transcultural understanding and cooperation, performance management and stakeholder training as sustainability indicators have been impacted because of an evaluation and understanding of a

particular and relevant transnational market condition. For instance, understanding and considering transcultural issues, beliefs, ideas, impressions, expressions and similar other views could be a vital factor to strategise the performance management and stakeholder training principles in a transnational market, in order to motivate and bring out the best performance from the transnational employees through the expected and accepted transnational values. Similarly, another issue would be to recognise whether centred on a transnational market condition, such as the local business norms, values, culture, relevant examples and so forth are integrated in the business course materials. Since, research demonstrates that "scientific principles and local facts go together to solve problems and make decisions" (Rousseau, 2006, p. 260). Therefore, integrating local/transnational business case examples in transnational business courses would be instrumental to profoundly clarify the business theories to transnational students. If such transnational business case examples are integrated in transnational business course materials, it can be confirmed that the 'transcultural understanding and cooperation' as a sustainability indicator is incorporated here, which confirms the proposition 2.

Durability of TNE strategies

To develop insights, another concern would be to understand whether in relation to various TNE activities, the strategies that are influenced by the relationships of the sustainability indicators and specific transnational market-specific conditions are surviving. For example, Curtin Singapore (2014) offers three different types of English language courses. The issues here would be to understand:

- whether offering such supporting courses are influenced by the transnational demand;
- how long ago such supporting courses were introduced;
- and most importantly, whether these supporting courses are contributing as an additional source of revenue, which is another sustainability indicator.

If such insights as discussed in the sub-sections, and can be developed centred on all recognised TNE activities, and appear as consistent to the discussed arguments, then the proposition 3a and 3b can be explored. The reviewed literature illustrates that the prospective relationships of the sustainability indicators and transnational market conditions, and the influence of such relationships to decide about the TNE StandAdapt strategies, in relation to a range of TNE activities and key strategic partnership considerations to form a TNE is an unexplored area. Against this gap, this study contributes to literature by a simple initial

framework (Figure 2) to strategise TNEs' operations, in order to sustain its business viability, where reinforcing the potential relationships between the sustainability indicators and transnational market-specific conditions, and the influence of such relationships, in relation to TNEs' strategic partnership considerations as discussed in Table 2, and StandAdapt strategies is crucial for TNEs' and their all activities' sustainability. This sustainability framework would have implications for other industries, outside the TNEs. However, the application of this framework should be centred on industry specific activities, which is analysed in this paper based on TNE activities, and also it should pursue the given situation only, relevant to a specific industry and/or the targeted market-specific conditions. Additionally, this initial TNE sustainability framework itself contributes to extant literature from the perspectives of transnational businesses' sustainability and new insights to the StandAdapt debate, as well as opens up new opportunities to contribute to the extant literature through further studies.

Triple P's (people, planet and profit) in TNEs' sustainability

This sub-section attempts to develop some empirical insights, in order to support the initial conceptual framework of Figure 2. In general, successful TNE operation contributes to people/society, and planet/environment. Since, TNEs attempts to develop skilled work force and offer jobs in the transnational societies. Again, through research activities, some TNEs also contribute to the ecological issues. For example, the Nottingham Ningbo, the transnational operation of the University of Nottingham, UK in China offers numerous scholarships, in support of their various government, academic and industry partners in China. In partnership with the Hang Seng Bank scholarship, Zhejiang Province scholarship, Li Yeyaozhen scholarship, China National Centre for Student Financial Aid, and from the University's own funds (Scholarship Information for Current Students, nd; Scholarship Information for New Students, nd), the Nottingham Ningbo provides many undergraduate and postgraduate scholarship. Also, "The innovation team (at Nottingham Ningbo)…work closely with Zhejiang University, Ningbo Institute of Material Technology & Engineering, Chinese Academy of Sciences and leading companies in auto parts manufacturing…to invent low carbon technologies' (Scholarships and Fees, nd, np). In this joint research and innovation efforts with the transnational partners, Nottingham Ningbo proffers prestigious scholarships to research students, which offset the tuition fees, as well as aims to co-create value for all involved stakeholders. Therefore, the Nottingham Ningbo is contributing to

transnational society, e.g. students, industries and government through their transnational operation.

In this effort, 'alignment to stakeholders' needs and expectations' as a sustainability indicator serves to adapt and apply the Nottingham's research expertise to contribute to transnational socio-economic issues, e.g. inventing low carbon technologies in China. Furthermore, in general developing collaborative research consortia requires understanding stakeholders' needs. From this context, China's need to invent low carbon technologies would be considered as a transnational market-specific condition, where the Nottingham Ningbo engages with their research expertise, as part of their overall TNE activities. In the long-run, the successful execution of such collaborative research projects would have influence for Nottingham Ningbo to further extend their research services in China in future. Therefore, through such scholarship and research services, the Nottingham Ningbo not only contributes to their transnational society, e.g. students, and academic, industry and government stakeholders, but also contributing to sustain or extend the business viability of their services through transnational focussed efforts to serve the transnational stakeholders' needs, wants and expectations.

Curtin Malaysia, the transnational operation of Curtin University, Australia in Malaysia contributes to the management of local wildlife, such as crocodile, and other engender species, i.e. the Borneo sun bear through their research activities (The Road Ahead, 2015; Uneasy Co-existence, 2015). The Curtin Malaysia CEO, Professor Jim Mienczakoniski describes:

> (Eric, a Borneo sun bear) he is part of our research and our environment that we concern for and looking after. Eric lives here at the crocodile firm and nature park, near Curtin University in Miri, Sarawak, Borneo. The nature park (offers) a chance to…(work closer to)…the whole range of creatures; most of them are unique to this region. (Uneasy Co-existence, 2015, np)

In recognition of Curtin Malaysia's contribution to transnational socio-economic and environmental needs, they have been awarded Malaysian Ringgit1,000,000,000 (approximately US$231,192,570) as research grants by the Malaysian Ministry of Science, Technology and the Environment (Research and Development, nd). In addition to the Malaysian Central Government's research funds, Curtin has also been offered research funds by the State Government, and various industrial partners. Curtin has a reputation as the first

international University in Malaysia to be entitled for Malaysian central Government research fund (Research and Development, nd). Curtin Malaysia's such contributions to their transnational ecological issues also contribute to their profit/revenue generating efforts through their research incomes. Following the understandings of transnational research issues and needs, the following three different sustainability indicators appear as contributory here to adapt and integrate the transactional needs in Curtin Malaysia's research services:

- 'a reinforced reputation' as the first international University to secure the Malaysian Central Government's research fund;
- 'more potential sources of revenue/additional business opportunities' and
- perhaps 'proximity to (government) power', based on Curtin Malaysia's contribution to the Malaysian Government's research and innovation schemes.

Need for future research

This initial sustainability framework to strategies TNE in relation to the key considerations to form a TNE, its StandAdapt strategy, and a range of TNE activities needs to be empirically tested, in order to generalise its further academic and managerial significance. Empirical studies could be implemented in different transnational markets, as well as industries, with a keen eye to recognise the existing and emerging sustainability indicators that would have impact on various transnational market-specific conditions and vice-versa. Future studies to further correlate these interconnected concepts of sustainability issues, transnational market conditions, partnership theory and relevant strategic considerations to form a partnership and other emerging issues, in relation to strategies TNE businesses, with an aim to sustain its business viability; will be beneficial to enrich these initial propositions. Again, a longitudinal data collection process from specific transnational markets would be valuable to determine how the mutual application of these concepts has progressed. Additional research can be conducted on establishing a structured process to analyse the discussed potential relationships between the established and emerging sustainability indicators and market-specific conditions, and to understand the extent of sustainability. Comparative studies among different transnational markets and perhaps industries could be conducted to compare the influence of this framework from different perspectives. From methodological perspective, further research is encouraged to establish an applied technique to assess the varying extents of sustainability to enhance the impact of this initial framework. Further research would also be instrumental to develop comprehensive insights on three different issues (e.g. TNEs profit

and survival, and TNEs' contribution to society and industry) of business sustainability from the contexts of TNEs.

The professional focus of this study has been particularly relevant to transnational business professionals of any industry. However, the application of this initial framework should follow the given situation of a specific industry or transnational market only. A series of key components (sustainability issues, transnational market conditions, partnership principles and relevant strategic considerations) and their application have been identified and analysed as important factors in TNE strategy and their sustainability. Such insights will also be valuable for transnational business professionals to align the relevant sustainability issues in their work-programmes to reinforce their transnational businesses. However, in general, practitioners will be able to apply this framework to underpin their transnational businesses; beside the academic interests, further research will also satisfy the need for explicit guidance for practice.

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(please insert Appendix 1 here)

Form of TNE	Description
Direct international branch campus (DIBC)	Higher education institution (HEI) establishes a direct operation known as DIBC in a cross-border market and is responsible for all aspects of operations, including staff and students' recruitment, program delivery, quality control, compliance to legislation and awarding of the qualification. However, the HEI is directly responsible for all operations; typically DIBCs operate in partnership of a local agent, usually through a property development company who is responsible for the physical infrastructure.
Franchisee/twinning programs	HEI authorises a host HEI in a cross-border market to deliver their program. Here, the sending HEI is responsible for curriculum (syllabus, teaching materials and assessment), quality assurance and the award, while the host HEI is responsible for program delivery, student admission, facilities and infrastructure. The sending HEI may allow flexibility to accommodate local circumstances in curriculum, for example reflection of local business law on the modules. However, the host HEI is responsible for academic and administrative staff recruitment; the sending HEI may help by providing flying academics.
Distance learning	In this form, primarily the HEI retains complete control over admission, teaching and assessment of students, although it frequently involves a network of local partners or agents to market degrees and support transnational students.
Articulation	This form permits transnational students who have completed a specified portion of a curriculum (award not of the sending HEI) to apply to a sending country HEI, either being studied in the sending country or in the host country, where the students enrol with 'advanced standing'. However, this form is often known as a strategy to recruit international students, but because of the feedback the sending HEI provides into the pre-articulation of the curriculum studied at the host country, it is also considered as a TNE.
Double/dual degree	Two or more HEIs in different countries mutually develop and deliver a common program. Mobility of students and academics between the associate institutions differs by program. Students receive a qualification from each of the involved HEIs.
Joint degree	The difference between joint and double/dual degree is that students receive a single qualification that contains the logo/badges of all involved HEIs.
Validation	A sending HEI evaluates a curriculum that is developed and delivered by a host HEI, as an appropriate quality to offer a degree of the sending HEI. The host HEI can develop the program to meet transnational needs; however the sending HEI remains responsible for quality control.
Others	Virtual universities, corporate training and intermediary agencies.

Table 1. The alternative forms of TNEs (British Council, 2013; Healey, 2015).

Key considerations to form a TNE	Description
Composition	Composition refers to the types of a partnership by the number and diversity of the associated partners (Moore and Koontz, 2003).
Structure	Structure is related to the dimension that focusses on the type of partnership agreement, its extent of formality, and the range to which it is supported by a legally binding contract (McQuaid, 2000).
Scope	Scope denotes to the variety of activities pursued by the partnership and the period of the contract (Margerum, 2008).
Function	Function signifies the vision, aims and objectives of the partnership and what it is envisioned to accomplish (Frank and Smith, 2000).
Process	Process refers the course of actions (missions) through which the vision would be achieved, including the responsibilities and autonomy of the involved partners (Waddock, 1991).
Outcome	Outcome concerns with the question of whether the outcome of the partnership would be a process or a product (Long and Arnold, 1995) or both. For example, in TNE partnerships, the outcomes differ from developing an enduring win-win focussed partnership for both the sending HEI and the partner/host HEI or agent (process) to basically promote/market education service (or product).

Table 2. The key considerations to develop a TNE strategy (British Council, 2013; Healey, 2015).

Sustainability driving indicators	Sustainability mediating indicators
- a predetermined vision, mission, values and culture (Diesendorf, 2000; Boyd and Charles, 2006)	- overall performance, profitability, survival and growth (Roberts and Tribe, 2008; Schaltegger et al., 2012; Tanguay et al., 2013)
- business costs and costs reduction (Schaltegger et al., 2012)	- minimised business costs (Schaltegger et al., 2012)
- business risks and risks reduction (Schaltegger et al., 2012)	- minimised business risks (Schaltegger et al., 2012)
- transcultural understanding and cooperation (Boyd and Charles, 2006; Choi and Sirakaya, 2006; Wiek et al., 2011; Tanguay et al., 2013)	- involvement in local community (Diesendorf, 2000; Epstein and Roy, 2003; Roberts and Tribe, 2008; Ratnayake and Kasim; 2011; Wiek et al., 2011; Tanguay et al., 2013; Lodhia and Martin, 2014)
- reinforcement of image, reputation and brand promotion, communication and awareness (Berns et al., 2009; Blancas et al., 2011; Schaltegger et al., 2012; Tanguay et al., 2013)	
- overall performance, profitability, survival and growth (Roberts and Tribe, 2008; Schaltegger et al., 2012; Tanguay et al., 2013)	- employee retention (Berns et al., 2009; Schaltegger et al., 2012)
- community involvement (Diesendorf, 2000; Epstein and Roy, 2003; Roberts and Tribe, 2008; Ratnayake and Kasim, 2011; Wiek et al., 2011; Tanguay et al., 2013; Lodhia and Martin, 2014)	- a reinforced image, reputation, brand promotion, communication and awareness (Berns et al., 2009; Blancas et al., 2011; Schaltegger et al., 2012; Tanguay et al., 2013)
- job creation (Epstein and Roy, 2003; Boyd and Charles, 2006; Choi and Sirakaya, 2006; Blancas et al., 2011; Dale et al., 2013; Lodhia and Martin, 2014)	- proximity to power (Choi and Sirakaya, 2006)
- diversity in workforce (Epstein and Roy, 2003)	- enhanced capacity of recycle and reuse (Pülzl et al., 2011)
- performance management (Crittenden et al., 2011)	- zero or less dispute in the business system (Boyd and Charles, 2006)
- stakeholder training (Stubbs and Cocklin, 2008; Roberts and Tribe, 2008)	- emerging factor(s)?
- alignment to stakeholder needs and expectation (Stubbs and Cocklin, 2008)	
- more potential sources of revenue/additional business opportunities (Berns et al., 2009)	
- proximity to power (Choi and Sirakaya, 2006)	
- dispute resolution capacity (Boyd and Charles, 2006)	
- recycle and reuse (Pülzl et al., 2011)	
- emerging factor(s)?	

Table 3. The sustainability driving and mediating indicators for TNE strategies.

Appendix 1. TNE activities and their perspectives of TNE studies.

TNE activities and their perspectives of TNE studies	Authors and year of study
Transnational teaching experience and teachers' training and development	Dunn and Wallace (2008); Davidson and Scudamore (2008); Hicks and Jarrett (2008); Smith (2014); O'Mahony (2014); du Plessis et al. (2014)
Overall quality control/assurance in transnational education, including the design and delivery of curriculum, assessment and other relevant services	Colman (2003); Baird (2006); Feast and Bretag (2007); Carroll (2008); McBurnie (2008); Blickem and Shackleford (2008); Pyvis (2013); Stella and Bhushan (2011); McBurnie and Ziguras (2011); Clayton, (2011); Stella (2011); Ranganath and Shyamasundar (2011); Clayton and Ziguras (2011); Ahamer (2014); Gough (2014); Waterval et al. (2015); Casinader (2015)
Sustainability in transnational education	Palaskas et al. (2010); Monteiro and Sharma (2012)
Cultural issues in transnational education	Ziguras (1999); Leask (2004); Bjorning-Gyde et al. (2008); Dunn and Wallace (2008); Ziguras (2008); Wang (2008); Eldridge and Cranston (2009)
Transnational education and global competition	Altbach (2004)
Transnational students' experience, perceptions and satisfaction	Zimitat (2008); Wallace and Dunn (2008); Miliszewska and Sztendur (2012); Wilkins and Balakrishnan (2013)
Types, general policy of transnational education and its opportunities and threats	Whittaker (2008); Stella and Woodhouse (2011); Khadria (2011); Alam et al. (2013); Ling et al. (2014); Girdzijauskaite and Radzeviciene (2014); Healey (2015); Chen (2015);
Risks in transnational education strategy	Debowski (2008); Healey (2015);
Motivations and growth of transnational education	Doorbar and Bateman (2008); Murray (2011); Miller-Idriss and Hanauer (2011); Wilkins and Huisman (2012)
Transnational education partnership and co-creation	Bell et al. (2008); Blickem and Shackleford (2008); Lang (2011); Vinen (2011); Keay et al. (2014); Waterval et al. (2015)

| TNE activities and their perspectives of TNE studies	Authors and year of study
Regulatory aspects of transnational education	McBurnie and Ziguras (2001); Ziguras (2003); Huang (2008); Thorat (2011);
Discipline/taught course-specific studies in transnational education	Chapman (2008); Anandakrishnan (2011);
Transnational education and immigration	Robertson (2013); Levatino (2015)
Communication and promotion of transnational education	Keay et al. (2014)
Research approach in transnational education	Hoare (2006); White et al. (2015)

List of figure
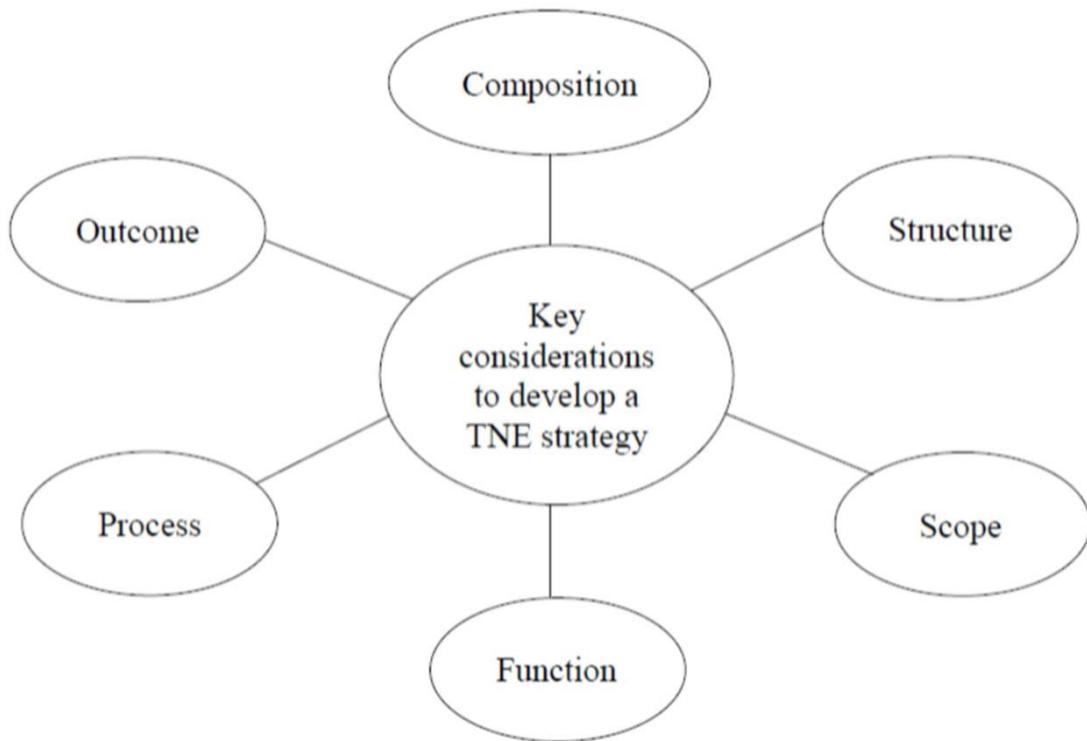
Figure 1. The Flower of the Key Considerations to Nurture the Seeds of TNE Strategies (adapted from Healey, 2015).
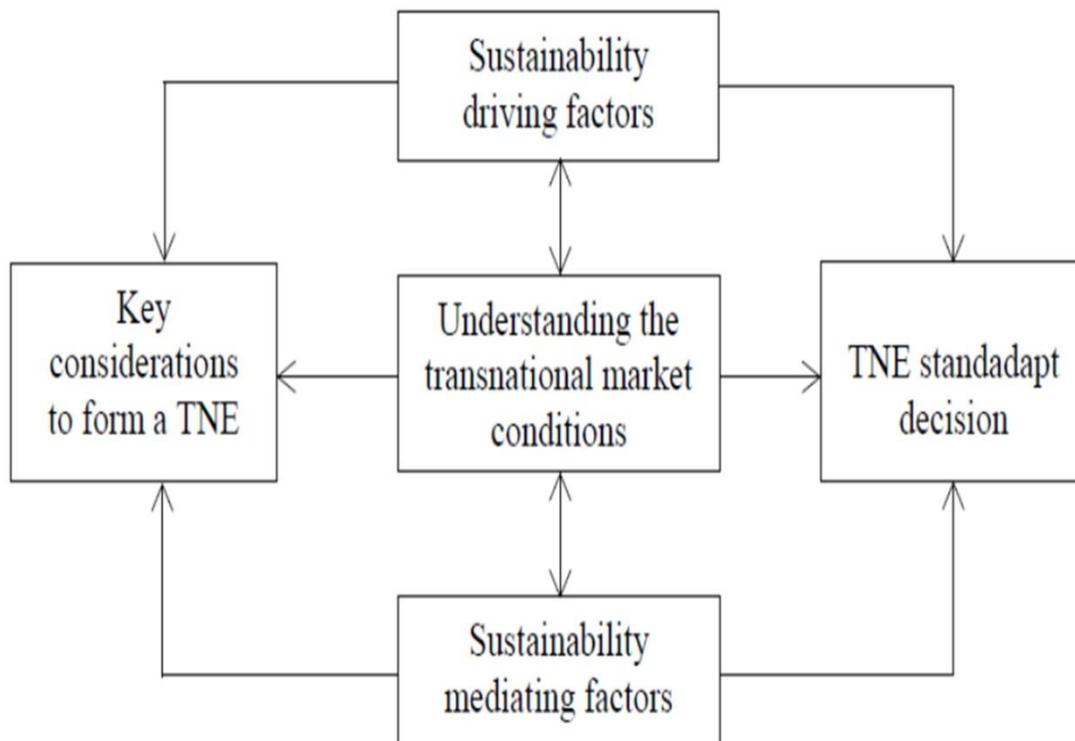
Figure 2. Conceptual Framework of Transnational Education Service Strategies and Sustainability.