HARNESSING UNIVERSITY-INDUSTRY COLLABORATION THROUGH LIFELONG LEARNING EDUCATION

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ABSTRACT

Strategic alliances play a major part in the strategic set up of many firms. While this mode toconduct economic activity has received increasing attention in the strategic management literature, our understanding is still limited. This paper aims to explore the strategic alliance between university-industry relationships by focusing on the experience of Open University Malaysia and its lifelong learning strategic alliances. This paper reviews literatures on allianceformation and management, governance of alliances and dynamics of alliances.

The advantages and the challenges of inter-organisational collaboration are discussed. Thestrategic alliances between organisations may reduce resource redundancy and increase effective use of state fiscal, physical, and personnel resources. More often than not, policymakers are interested in using strategic alliances to leverage change that is not attainable when institutions act alone, especially when the desired changes span across public sector institutions or across educational sectors. The managerial advices suggested by the current literatures are revisited in order to access the groundwork to address alliance challenges and enhance their alliance capability.

This paper proposes that with an increasing number of alliances firms are increasingly forced to develop consistent practices within alliances and to coordinate between these alliances. In the quest to develop a knowledge based society, alliances between university and industry are more pertinent as universities need to produce the pool of talents with a set of specific skills required by specific industries.

Open University Malaysia has forged strategic alliances with many organisations, locally and abroad. Open University Malaysia through its Institute of Professional Development has forged with several national bodies; Master Builders Association of Malaysia, Building Management Association of Malaysia, Federation of Malaysian Consumers Association, Malaysian Institute of Human Resources Management, Institute of Public Relations Malaysia, Malaysian Institute of Management, Malaysian Financial Planning Council and the Malaysian Institute of Estate Agents. These national bodies are holding a pivotal role in shaping the industries in Malaysia.

Open University Malaysia is seen as a trendsetter in the field of education, having brought to mainstream attention the viability and benefits of the open or distant learning approach. By harnessing this approach Open University Malaysia has helped the scores of working individuals to upgrade their qualifications as its mission is to make education accessible for all.

Keywords: Strategic Alliances, Collaboration, Synergy, Governance, Lifelong Learning Education.

I. INTRODUCTION

Strategic Alliance is a Memorandum of Agreement between two or more parties set out to work on a set of agreed upon objectives whist remaining as independent organisations. This form of cooperation lies between mergers, acquisition and organic growth. Strategic alliances are discrete entities created, owned and influenced by two or more firms that may contribute various types of resources such as facilities, financial, human capital and technological and share in the outcome of the created entity (Barney, 2011; Das, 2000).

Partners may provide the strategic alliance with resources such as products, distribution channels, manufacturing capability, project funding, capital equipment, knowledge, expertise, or intellectual property. Strategic alliances allow companies to develop products and rapidly expand their markets while managing risk and costs through sharing resources. Each partner hopes that the benefits from the alliance will be greater than those from individual efforts. The alliance often involves technology transfer (access to knowledge and expertise), economic specialisation, shared expenses and shared risk.

Through strategic alliance, firms can develop new capabilities provide the best opportunities to expand its skills and know-how (Hill, 2010). This paper aims to explore the strategic alliance between university-industry relationships by focusing on the experience of Open University Malaysia (OUM) and its lifelong learning strategic alliances.

This paper aims to review literatures on alliance formation and management, governance of alliances, dynamics of alliances and performance. The advantages and the challenges of inter-organisational collaboration are discussed. The managerial advices suggested by the current literatures are revisited in order to access the groundwork to address alliance challenges and enhancement their alliance capability.

II. LIFELONG LEARNING AND STRATEGIC ALLIANCE

According to Organisation for Economic Co-operation and Development (OECD, 1996), learning is a continuous process which starts from day one and continues throughout one's journey in life. The Scottish Executive's definition of lifelong learning provides a clear understanding that lifelong learning not only deals with formal education but it also includes informal learning as well as learning in the workplace (Scottish Executive, 2004). This definition further elaborates that skills, knowledge, attitudes and behaviours that people acquire in their day-to-day experiences are categorised under lifelong learning.

These learning activities will include all forms of learning, be it planned or incidental in nature. Lifelong learning has been one of the most discussed agenda in education today. It is a continuous process to improve one's knowledge, skills and competence based on the learning objectives of the subject matter. In the context of Malaysia, lifelong learning is very closely connected to employability and productivity. Therefore, its main purpose is to provide and fulfil the nation's needs with knowledgeable, skilled and competent human capital. Policy statements on lifelong learning have been mentioned in a number of government documents and plans to provide access to lifelong learning to every citizen have been strategised. From literature review, earlier scholars such as Weber (1928), Marshall (1932), Schumpeter (1935), Keeble & Wilkinson (1999), Simmie (2003 & 2004), Porter (1998 & 2001) and Tilak (2007) stressed the importance to forging university-industry alliance to would contribute to economic prosperity which enhance earnings, promotes income growth and contribute towards economic development, reduces poverty, reduces infant mortality and increases life expectancy.

The formation of strategic alliances would be essential for Institutions of Higher Education (IHE) to compete in a global marketplace (Rush, 2002) as they are no longer confined to their traditional roles of teaching and conducting primary research. Strategic alliances are a logical and timely response to intense and rapid changes in economic activity, technology, and globalisation (Doz & Hamel, 1998). The IHEs, particularly, universities have emerged as central actors in the knowledge-based economy (Bramwell & Wolfe, 2005). Similar to partnerships, university-industry alliances are sometimes considered risky, difficult to negotiate, political and easily challenged by the institutional status quo (Bruffee, 1999; Fear et al., 2004).

The review on the state of the art of knowledge on alliance formation and management has been studied from a number of theoretical perspectives (Glaister & Buckley, 1996; Kogut, 1988). In a number of studies, the authors draw on the wider perspective of the formation of inter-firm relationships, for instance, Grandori and Soda identified a large number of antecedents for the formation of inter-firm relationships (Grandori & Soda, 1995), see Table 1.

Table 1. An overview of different antecedents of inter-firm relationship formation

Theory field	Antecedents of network formation
Industrial economics	Production cost, such as economies of specialisation and experience, economies of scale, or economies of scope
Historical and evolutionary approaches	Technology, related costs and learning problems
Organisational economics	Governance cost determined by asset specificity, uncertainty, frequency, measurability, control, and risk aversion
Organisational perspective	Degree of differentiation between units, complementarity of units, interdependence, number of units to be coordinated, complexity of interdependent activities, asymmetry of resources controlled, and flexibility
Negotiation analysis	Structure of games, pareto-efficiency, fairness, and process of negotiation
Resource dependence views	Types of dependence, breadth of relationship, and type of interdependence
Neo-institutional views	Legitimisation and institutional embeddedness
Organisational sociology	Social and cultural embeddedness
Radical and Marxist studies	Class dominance
Social network theory	Network positions, such as centrality, structural equivalence, and network structure
Strategy and general management	Position and competence characteristics
Industrial marketing	Social exchange and dynamics in networks, and entrepreneurship
Economic policy and economic law	Externalities
Population ecology	Economic effectiveness and efficiency, and legitimisation

Source: Grandori & Soda, 1995

III. THE EDUCATION LANDSCAPE IN MALAYSIA

Malaysia is determined in transforming herself into a high-income knowledge-based economy by year 2020, the Malaysian government has launched the 10th Malaysia Plan which charts the development of the country for the period of 2011-2015. Education is one of the National Key Economic Areas which was established in 25 September 2010. In the Malaysian Higher Education Sector, four distinct phases were established in the National Higher Education Strategic Plan Beyond 2020 (Phase 1: Laying the Foundation, Phase 2: Strengthening and Enhancement, Phase 3: Excellence and Phase 4: Glory and Sustainability) as the linkage between university-industry is listed as one of the 22 critical agenda projects (MOHE, 2011b).

While such expansion is taking place, Malaysia is challenged to address some crucial issues related to higher education as there is a quest for Malaysia to become a regional hub for educational excellence in providing world-class university education. In order to fulfil this aspiration,

the higher education institutions have come under greater public scrutiny since there was no Malaysian IHE provider securing a position in the Top 100 in the Times Higher Education World University Rankings.

Furthermore, there is a growing concern as the number of unemployed graduates from the higher education system since year 2000. The World Bank (2007) has reported that the number of unemployed graduates has risen from 42,500 in year 2000 to 74,182 in year 2004. To address this, Malaysia needs an education system that is market-driven to produce work-ready graduates (Ng et al., 2012). Malaysia is in the world map as one of the providers of IHE, accounts for 2% of the world market share of international students studying in Malaysia in year 2010. Malaysia was ranked 11th worldwide destination among international students then (Posiah Mohd Isa, 2011), see Figure 1.
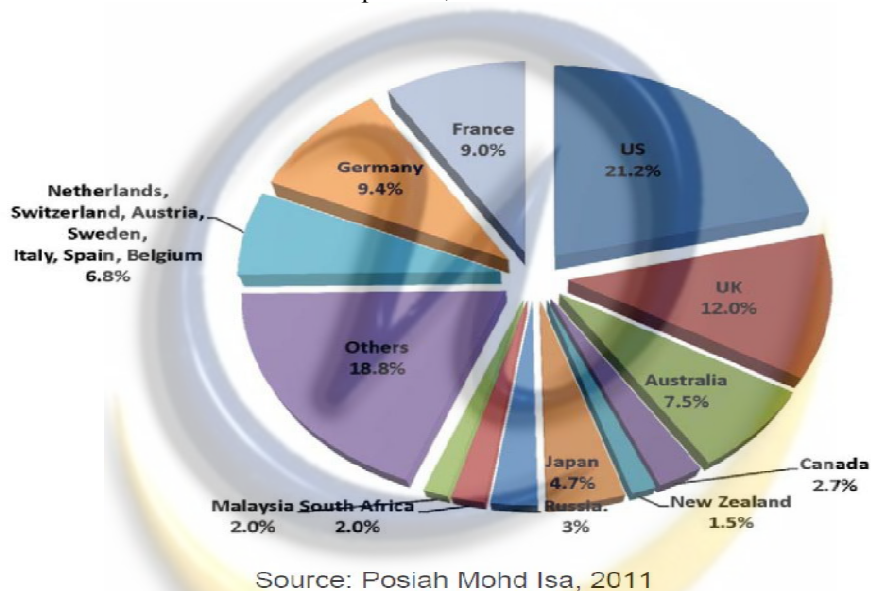

Source: Posiah Mohd Isa, 2011

Figure 1. World market share of international students in 2010

The Chief Minister of Kedah State, the former Deputy International Trade and Industry Minister, Datuk Mukhriz Mahathir has urged Institute of Higher Education providers and the industries to collaborate to produce skilled workforce by offering the right education and training programmes (The Star, 2012). In 2007, Malaysia was reported to have close to 20 publicfunded universities, 37 private universities and university colleges and approximately 300 private colleges (MOHE, 2007). Subsequently in 2010, Malaysia was reported to have 20 public-funded universities, 9 foreign universities branch campus, 42 private universities and university colleges, 468 private colleges, 27 polytechnics and 39 community colleges (Posiah Mohd Isa, 2011).

In the aspect of lifelong learning, the Ministry of Higher Education Malaysia has recognised its importance and hence placed it as the third pillar of human capital development, the Blueprint on Enculturation of Lifelong Learning for Malaysia 2011-2020. Lifelong Learning provides a "second chance" to update all kind of abilities,

interests, knowledge and qualifications from preschool years to post-retirement (MOHE, 2011a).

IV. TRADITIONAL AND MODERN UNIVERSITIES

There are many ways to describe the culture within universities and essentially what a university is, but one of the newer, cited and used is Dearlove (2002) that describe universities as: "Universities are essentially seen as communities of scholars where research, critical thought and the dissemination of knowledge takes place." With this citation Dearlove (2002) explains the fundamental of a university as being knowledge edification. Kok et al. (2010) describes traditional values of universities as promotion of academic freedom and autonomy for scientists, and the primary focus of a university is academia, but these values of universities are changing

(Van Dierdonck, Debackere & Engelen, 1990; Mouwen, 2000; Kok et al., 2010). Among others demand has forced universities to shift their focus from elite education to mass education (Van Dierdonck, Debackere & Engelen, 1990; Westerheijden, Hulpiau & Waeytens, 2007; Kok et al., 2010).

In the past these were primarily teaching and research, but now a third core activity has been added, the engagement of universities in the development of business and society in general – contributing to the development and innovation of industry and society by implementation of knowledge, which adds further to the changing role of the universities. (Barnes, Rashby & Gibbons, 2006; D'Este & Patel, 2007; Lundvall, Rasmussen & Lorenz, 2008) The shift in university values and core activities can be explained by how the surrounding society wants to take advantage of the knowledge being created at the universities.

Governments and companies see implementation of knowledge as an opportunity to gain competitive advantages, which have led to a public demand, about universities seeking collaboration with the industry and surrounding society (Van Dierdonck, Debackere & Engelen, 1990). With these demands it would be plausible to imagine that funding from the governments would rise, but the opposite happened, and since the 1970s the universities have experienced an increase in numbers of students but reduced public funding (Kok et al., 2010). This forces the universities to think in new ways, both being more effective and maintaining the high quality (Frølich, Waagene & Aamodt, 2011) Managerialism and bureaucratic considerations in many universities are reducing academic freedom and autonomy while promoting accountability. Creating the need to move universities towards an institute that provides education to the masses, while being efficient, effective and economical, in turn this decreases the scientists' freedom and autonomy (Kok et al., 2010). Kok et al. (2010) describe how universities are starting to have more focus on the universityindustry collaboration, as there is an opportunity for funding supplementing the lower public funding and additional publications spreading the reputation of the university.

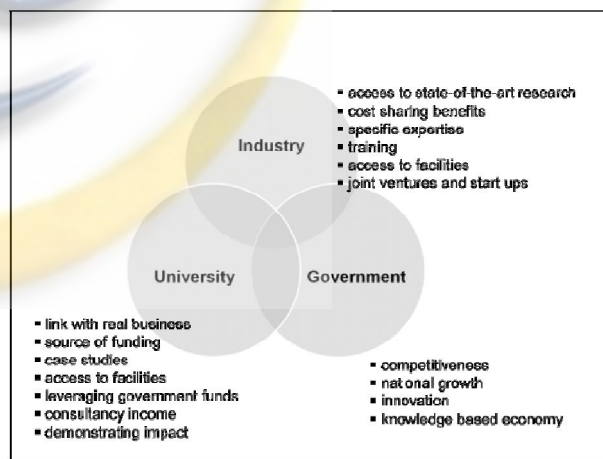## V. STRATEGIC ALLIANCE BETWEEN UNIVERSITY-INDUSTRY

The strategic alliances between organisations may reduce resource redundancy and increase effective use of state fiscal, physical, and personnel resources. More often than not, policy makers are interested in using strategic alliances to leverage change that is not attainable when institutions act alone, especially when the desired changes span across public sector institutions or across educational sectors. This may create a synergy that fosters greater opportunities for change than may otherwise be possible (Amey, Eddy & Campbell, 2010).

The partners in strategic alliance may benefit from the facilities-sharing arrangements such as classrooms, laboratories, computer laboratories and sporting facilities, thus enabling a more efficient use of existing facilities and may stave off new purchases (Brumbach & Villadsen,

2002; Keener, Carrier & Meaders, 2002). Furthermore, partnership initiatives can aid in the achievement of internal institutional goals, facilitate efficient resource sharing (Russel & Flynn, 2000), help institutions meet technology demands (Sink et al., 2004) and provide better service delivery (Bragg, 2000). According to Dealtry (2008), the drivers that can prompt a move in strategic alliances are:

1. mitigate the risks of moving into a new national market place;
2. sharing the financial burden of pursuing a new business opportunity;
3. entering into a network that will provide people development opportunities;
4. joint research with common objectives;
5. raising the relevance, quality and access to learning provision;
6. to meet regulatory conditions i.e. buying into an established qualified entity; and
7. to appraise market potential and test the viability of existing business models.

Institutions of Higher Education can benefit from industrial funding, access to industrial testing facilities and practical case studies. Industry can potentially save on research and development and the need to develop a specific expertise in-house. From the perspective of the government, these alliances could increase the competitiveness, increase innovation and fuel the growth of the nation. Figure 2 summarises the benefits of the partnership between university, industry and government.


Source: Schoefield, 2013

Figure 2. The benefits of strategic alliances to university, industry and government

From literature review, the following is a list of collaborations between universities and industries:

1. University Kebangsaan Malaysia with Proton Berhad, AIC Semiconductor Sdn. Bhd., ON Semiconductor and IJM Construction Sdn. Bhd. on research and development (Shahabudin, 2006).
2. University Utara Malaysia with MyPath Sdn. Bhd., The Star, Association of Bumiputra Remisers, Airgate Media Networks Sdn. Bhd. on industrial training (Nordin Kardi et al., 2009).

3. University Malaysia Sarawak with Prestariang System Sdn. Bhd. on professional training (Syahrul N. Junaini et al., 2008).
4. Asia e University Malaysia with Kyungwoon University and Prima Technology Consulting Malaysia Sdn. Bhd. on the development and offering of training programmes (AeU, 2010).
5. Universitas Indonesia with PT Prudential Life Assurance on research and development and industrial training (Prudential, 2013).
6. Zhejiang University China with Zhejiang Insigma Group on research and development and industrial training (Feng, Ding & Sun, 2011).
7. Shanghai Jio Tong University China with Bao Steel Group on research and development and industrial training ((Feng, Ding & Sun, 2011).
8. University of Melbourne Australia with Microsoft Corporation on research and development (The Conversation, 2013).
9. Open University United Kingdom with e2V on research and development (OUUK, 2013).

The relationship between the university and industry is best represented by the universityindustry smart synergy model in Figure 3. The industry will help to enhance and develop the curriculum by certifying the study programme. The loop of the two arrows depicts continuing processes.
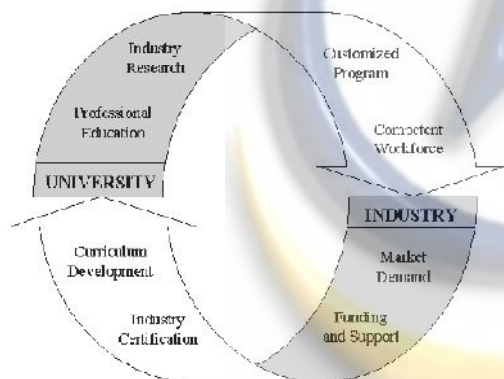
Source: Syahrul N. Junaini et al., 2008

Figure 3. The university-industry smart synergy model

VI. OPEN UNIVERSITY MALAYSIA'S PERSPECTIVE

Open University Malaysia was established in 2000 under the Higher Education Institutions Act 1996 with the mission of democratising education by making higher education accessible to a wider segment of the community. Backed by the strengths and resources of a consortium of eleven Public Universities in Malaysia, OUM is seen as a trendsetter in the field of education, has brought to mainstream attention the viability and benefits of open and distant learning approach. By harnessing in this approach, OUM has helped scores of working individuals to upgrade their qualifications. OUM's mission is to make education accessible for all. Through the years, OUM has witnessed the success of its endeavours, with the admission of more

than 125,000 learners since it first began operations in 2001 (see Figure 4).

Learners were able to pursue their education in the learning centres in any of its 36 learning centres in Malaysia. The University offers over 100 programmes ranging from professional certificates, diplomas to doctor of philosophies. Learners are supported by experienced face-to-face tutors, online learning through its My Virtual Learning Environment (MyVLE) and digital library with physical books and a combination of over 90,000 e-books and e-journals (OUM, 2012).
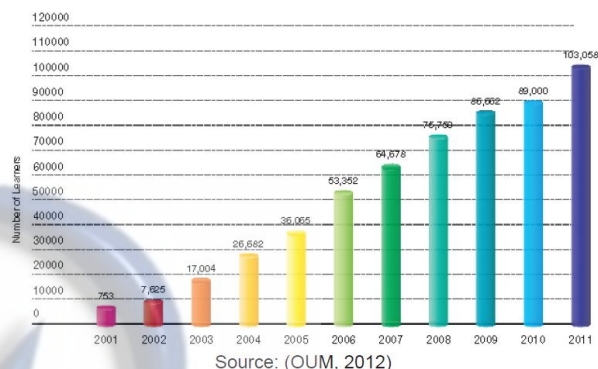

Source: (OUM, 2012)

Figure 4. Cumulative enrolment of learners at Open University Malaysia from 2001-2011

Open University Malaysia has received accolades over the years. Among the notable awardsare:
1. Bronze Medal in the Education and Learning category, Putra Brand Awards 2013.
2. Jewel of the Muslim World Award 2012 - Third Muslim World Biz Conference and Exhibition, Jakarta, September 2012
3. Jasper Research Award, Southeast Asian Ministers of Education Organisation 2012
4. Tier 5-Excellent Award - Malaysian Higher Education Institution Rating System 2011
5. Award of Excellence - Institutional Achievement in Distance Education from the Commonwealth of Learning, 2010
6. Award for Excellence in Education for Continuous Learning and Adult Education - Technology Business Review 2009
7. Asia HRD Congress Award 2009
8. Mobile Learning Initiatives Recognitions 2008 by Asia Pacific Mobile
9. Award for Excellence in Education for Continuous Learning and Adult Education - Technology Business Review 2007
10. E-Learning Recognition Award - Eszterhazy Karoly College, Hungary 2006
11. Award for Excellence in Education Management on Provision of Continuous Education-Technology Business Review 2006

Institute of Professional Development and School of Lifelong Learning

In order to keep abreast with the constant change in the training and development sector, OUM has formed 5

strategic business units within its Institute of Professional Development (IPD) and School of Lifelong Learning to focus on a wide range of portfolio across the industries as follows:

1. *Centre for Corporate Excellence*
    The Centre for Corporate Excellence is established to spearhead the corporate training initiatives within the ambit of the Institute of Professional Development that would be tailored to the needs of the organisation in order to train and develop the staff for improvement.

2. *Centre for Vocational & Technical Excellence*
    Centre for Vocational and Technical Excellence forms strategic networks with trade associations, key learning institutes and community colleges to develop technical and vocational based certificates, professional certificates and diplomas in order to produce highly skilled labour for the new economy.

3. *Project Management Centre of Excellence*
    The Project Management Centre of Excellence is set up to offer project management related courses, project management seminars and consultancy. This team consists of retired senior personals with vast experiences from various multinational corporations and corporate industries.

4. *Centre for Professional Development*
    The Centre of Professional Development offers Professional Certificate, Diploma and Executive Degree programs for individual professionals seeking to move their career to the next level. The programmes integrate blended learning and weekend classes to accommodate the schedules of working adults.

5. *Centre for Logistics and Management Studies*
    The Centre for Logistics and Management Studies is a joint initiative between IPD and Ports World from the industry to spearhead education and training in logistics, global supply chain management and related areas.

Open University Malaysia has forged strategic alliances with many organisations, locally and abroad. Open University Malaysia through IPD forged strategic alliances with several national bodies in Malaysia - Master Builders Association Malaysia, Building Management Association Malaysia, Federation of Malaysian Consumers Association, Malaysian Institute of Human Resources Management, Institute of Public Relations Malaysia, Malaysian Institute of Management, Malaysia Financial Planning Council and the Malaysian Institute of Estate Agents.

These national bodies are holding a pivotal role in shaping the industries in Malaysia. OUM through IPD is working closely with these national bodies in offering industry related training programmes to its members nationwide. It has been OUM's hope and aspiration that these human capital development efforts will be the catalyst for the formation of a developed nation. These national bodies are holding a pivotal role in shaping the industries in Malaysia.

As a centre of excellence in OUM, IPD has championed the acculturation of life-long learning. The Institute propagates modular-based training relevant to the

industry. Some of the programmes offered by OUM and the national bodies are exhibited in Table 2.

Table 2. Some of the programmes offered with the national bodies

Organisation	Programme Offered
Master Builders Association of Malaysia	Executive Diploma: • Construction Project Organisation and Control • Construction Management • Project Management • Contract Administration Executive Bachelor: • Construction Supervisory Management • Integrated Construction Project Management • Contract Management and Administration
Building Management Association of Malaysia	• Executive Master Of Business Administration (Building And Facilities Management)
Federation of Malaysian Consumers Association	• Professional Diploma in Consumer Studies
Malaysian Institute of Human Resource Management	• Professional Post-Graduate Diploma in HRM
Institute of Public Relations Malaysia	• Professional Practice Certificate in Public Relations • Professional Diploma in Public Relations
Malaysian Financial Planning Council	• Executive Master in Financial Planning
Malaysian Institute of Estate Agents	• Professional Diploma in Estate Agency

OUM has put in concerted effort in establishing and aligning university-industry needs. Learners are moulded with competencies to meet the expectations of the industry. The attempt is to align classroom teaching with the trends and current market needs of the industry. Over the last seven years, OUM has established links with other foreign higher education in the Middle East, African Continent, Yemen, Bahrain, Maldives, Sri Lanka, Vietnam, Hungary, Somalia, Zambia and Mauritius. OUM is proactively expanding its international ties and has enjoyed much success as many countries have looked up to Malaysia as the education hub. Nevertheless, OUM faced poor internet connectivity challenge and the difficulty in reaching out to individuals in remote areas. OUM will review its curricula making it current and relevant, encourage its workforce in constantly upgrading their skills and competencies and create more lifelong learning awareness campaigns.

VII. ADVANTAGES AND CHALLENGES OF STRATEGIC ALLIANCE

Strategic alliances usually are formed when it is an advantage to the parties in the alliance. These advantages can be broken down to four broad categories as follow:

1. *Organisational Advantages*
    A strategic alliance can be formed for the purpose of learning necessary skills and obtain certain capabilities from the strategic partner. Strategic partner may be able to help each other to enhance productive capacity, provide a distribution system, or extend the supply chain. The strategic partner may provide a good or service that complements a good or service the other party provide, thereby creating a synergy. More so if the other party is relatively new or untried in a certain industry, having a strategic partner who is well-known

and respected will help add legitimacy and creditability to the venture.

2. *Economic Advantages*

The strategic partner can reduce costs and risks by distributing them across the members of the alliance. The partner can obtain greater economies of scale in an alliance, as production volume can increase, causing the cost per unit to decline. Both parties can take advantage of co-specialisation where they can bundle their specialisations together, creating additional value - such as when a leading publishing house bundles its publications with a partner university's electronic learning materials and subject matter expert video recordings.

3. *Strategic Advantages*

The competitors may join force to cooperate instead of competing. The parties can create an alliance to create vertical integration where they are part of the supply chain. Strategic alliances may be useful to create a competitive advantage by the pooling of resources and skills. This may help with future business opportunities and the development of new products and technologies. Strategic alliances may be used to get access to new technologies or to pursue joint research and development.

4. *Political Advantages*

The strategic partner may form a strategic alliance with a local foreign business to gain entry into a foreign market either because of local prejudices or legal barriers to entry. Forming strategic alliances with politically influential partners may help to improve organisation influence and positioning. Strategic alliances may come with certain kinds of disadvantages or risks as follow:

5. *Sharing*

Strategic alliances require the partners to share resources and profits, and often require the partners to share knowledge and skills as well. Sharing knowledge and skills can be problematic if they involve trade secrets. Agreements can be executed to protect trade secrets, but they are only as good as the willingness of

parties to abide by the agreements or the courts willingness to enforce them.

6. *Creating a Potential Competitor*

An ally one day may become a competitor when one party no longer needs the other party. Opportunity costs takes place when engaging in one opportunity may clos door on the other opportunities that may have been valuable as well. This may be especially true in strategic alliances that often require a lot of time and resources to develop adequately

7. *Uneven Alliances*

If the relative power of each partner in the alliance is uneven, the weaker partners may become bullied and forced to proceed as the more powerful members wish. Foreign confiscation takes place when there is always a risk that a foreign national government will attempt to seize the local business or force the foreign party out so the local strategic partner can have the market all itself once it has been developed. This may not likely to take place in a developed world however there is certainty that such problem exist in the developing ecnomies that have weak political and legal systems

VIII. CONCLUSION

In conclusin, in order to ensure collaboration between the partners to work and remain healthy, firstly, it is important to establish a kind of governance that is empeored to shape and steer the entire governing process. Examples of this include the publishing of codes of conduct at the highest level of international government, and media focus on specific issues at the socio-cultural level. Secondly, identify and convert expert knowledge at the university into innovative ideas that can excite and benefit the industry. Thirdly, demonstrating the value and impact of collaboration where the principles value and measure of integrity ate based. Forthly, to cultivate trust, integrity, reliability, honesty, and effectiveness in the collaboration, and lastly, develop sustainable relationship in the collaboration that seeks to provide a complete and holistic mission that is explicit and measureable

Source: Saran Kaur Gill, 2011

Figure 5. Key elements for building strategic university-industry alliance

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