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ECONOMIC DEVELOPMENT THROUGH LIAISON BETWEEN ACADEMIA, INDUSTRY AND GOVERNMENT: LIMKOKWING UNIVERSITY MODEL IN NATION BUILDING

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ABSTRACT:

This research paper illustrates the importance of convergence of government, industry, and academia for economic development through a strategic partnership for nation building. Measuring economic development is usually seen in the perspective of GDP (Gross Domestic Product), Inflation percentage, Reserves and Foreign Direct Investments (FDI). In this paper, the focus is given to strategic education, that is, how educational institutions contribute to develop economy through their policies. Variables like culture, education, social responsibility, industry orientation and investments were found from literatures and dealt here in detail. The research framework is been constructed with these variables, and mediated by Institutional policies where industry liaison has been taken as moderator. For the purpose of understanding the institutional policies, the case study of Limkokwing University has been considered here. The meritorious strategies of Limkokwing University have enabled them to excel not only in the education sector but also in the advancement of an economy as illustrated through their involvement in government policies in the countries where they had established campuses. To study these, a sample of 62 respondents were selected from industry under simple random sampling technique. Due to recent covid-19 outbreak, the authors resisted themselves to have face-to-face data collection, thus electronic mode was used to collect data. Using SmartPLS 3.3 the data were analysed through structural equation modelling because there was mediator analysis. Since this research had twelve hypotheses, all were tested and results of three hypotheses are mentioned in this research paper. The p-value was within the threshold; thus, the hypotheses were supported. Thus, it was concluded that institutions play a larger role in nation building through economic development along with industry liaison principle. And this appeases the 'quality education' goal of United Nation's Sustainable Development Goal (SDG) while contributing towards the fulfilment of other goals pertaining to poverty eradication as well as achieving gender equality.

INTRODUCTION

Fifty years ago, the university's role was restricted to research and training young people for a place in society. But the situation today has evolved where industry has a desperate need for the specialized know-how, information and advice available from universities. Focusing on institutions in the domain of the theory of growth and development used to be the hallmark of orthodox approaches. It is no longer the case today. A new generation of economists trained in economic modelling and econometrics, has emerged, with new ideas that educational institutions play a fundamental role in explaining the causes of economic growth. Some of the contributions of these economists provide a major source of inspiration for international organizations like International Monetary Fund, World Bank, United Nations among others. These contributions put forward new coordination mechanisms and evolutionary economic processes, which contrast with the usual market mechanisms and the steady-state equilibria of the traditional theory of growth. It is easy to confuse development with growth, considering that they have similar meanings and are often used interchangeably. Add the fact that economic growth is an important part of economic development, and you might feel like the room is spinning trying to understand it all. Economic growth is all about numbers. Economic Growth is the positive change in the real output of the country in a particular span of time. It is a straightforward measurement of actual economic output — things like Gross Domestic Product (GDP) fall into this measurement. It's a pure numbers game.

Economic Development, on the other hand, is much broader in scope and includes elements that you might not normally associate with economics, such as social welfare, early childhood education, and criminal justice reform. This paper offers an overview of how strategic education that liaises with industries as well as government, builds nations. The analysis and the recommendations of the economics of development that were previously focused on the role of markets – inspired by the standard economics – are centred on educational institutions nowadays. Then, there is growing literature devoted to the analysis of institutions and their functions in economies, both from a micro and a macro point of view.

The lynchpin that connects all parties concerned – policy makers, industry, educational institutions – is people. Undoubtedly it is the calibre of the workforce that underscores the strength of economic development and therefore, economic growth.

One of the world's biggest management and workforce development multinational – Korn Ferry Institute - conducted an economic analysis in August and September 2016 which estimated that human capital represents a potential value of US\$1,215 trillion to the global economy. Korn Ferry interviewed 800 business leaders in multimillion-dollar global organizations on their views on the value of people in the future of work. The respondents included CEOs, Chief Strategy Officers, and Chief Commercial Officers from the United Kingdom, China, the United States, Brazil, France, Australia, India, and South Africa. Respondents represented six sectors: technology; manufacturing; industrial (automotive, energy, oil and gas); life sciences and

pharmaceutical; financial and professional services; and consumer (FMCG, media, retail, and travel).

“It is 2.33 times that of physical capital, which includes tangible assets like technology, real estate, and inventory. Physical capital, the analysis performed for Korn Ferry indicates, should be valued at US\$521 trillion. Although organizations often put technology in the spotlight in the future of work, it is, in fact, human capital that holds the greatest value for organizations now and in the future.”

The trillion-dollar difference
Korn Ferry Institute, 2017

It is noteworthy that emerging economies like China, India, Vietnam and other Asian countries had adopted different policies. The real GNP per capital of China has increased by nearly 700% between 1978 and 2003. The Chinese economy has opened its foreign trade representing over 60% of its GNP. But China implemented a market system grafted on a planned system, namely a mixed system of private property rights and of domestic firms owned by local governments, integrated into international trade but supported by strong protectionism and special economic zones. In the U.S. it is anticipated that as many as 2 million manufacturing jobs will go unfilled by 2025, this prediction was done before covid-19. Children are graduating into the workforce without the skills needed to fill these often lucrative and stable jobs. If business and educational leaders can build partnerships and create pathways early on for students to pick up much-needed skills, the workforce gets a major boost. This is precisely what this paper discusses and places the case study of an Institution based in Malaysia, namely, Limkokwing University of Creative Technology (LUCT).

1.1 Case Study: Role of Limkokwing University in nation building

Limkokwing University of Creative Technology (LUCT) is a Malaysian-based institution operating in thirteen nations in Asia, Africa and Europe, as of 2020. Since its inception in 1992 the institution has been a catalyst for the transformation of private education in Malaysia as well as in the countries where it established Public Private Partnerships (PPP) with governments to progress and expedite their human capital development agenda. Academic globalization was the key principle that this University adopted and today they have a proven model for the world.

This University was envisioned by a strategic communications entrepreneur, Tan Sri Dato' Sri Paduka Limkokwing who gathered the thoughts of a group of international creative industry leaders as well as academic thinkers to design an ecosystem of education pedagogy, academic culture and student experience in a manner never attempted in the country.

It must be stated here that compelling reasons led Tan Sri Limkokwing to venture into education at a time when he was at the top of his game having carved a remarkable reputation and considered a “legend” in the world of

communications in Malaysia and the Asian region. His company - Limkokwing Integrated – was working closely with the Malaysian government to translate key policies for the mass market adoption through understanding. Limkokwing Integrated was brought in as a strategic communications consultant to help convey the key benefits of a number of policies that covered privatisation, tourism, trade, foreign affairs, defence, health, sports, youth development and national unity, to mention a few. Limkokwing Integrated produced communication materials covering print, electronic and outdoor media that helped both the layman as well as the corporate world to understand the intentions of the policies introduced by the government. In some instances, Tan Sri Limkokwing even influenced the implementation of these policies with innovative approaches to create an impact on a number of socio-economic sectors.

It was this close involvement with the government that laid bare the serious lack of professional skills in the creative field in the country. What moved an industry leader the likes of Tan Sri Limkokwing to take a step into the academic world was his concern that talented Malaysians who left for studies overseas seldom returned causing the country to lose valuable skills. As a man who had a direct link to the Prime Minister, at that time, Dato Sri Mahathir Mohamad, he could see the country's economic development. At the same time, he could also sense the urgency to stop the outflow of talent at a time when the country, and, in fact, the world, was moving into an era of information-led economic growth.

The establishment of Limkokwing Institute of Creative Technology began a journey that led this Malaysian institution to bring its industry-focused formula to countries that faced similar issues in building talent and skills for the era of the Internet. As the institute evolved into a university and grew to become an international institution it broadened and deepened its ecosystem to facilitate its growing numbers of students and staff from over 150 countries.

What is significant is that the lessons this university learnt in building its ecosystem led to the creation of a model that could be applied across the world, especially in the developing world where it has focused its participation. The model is anchored on building an ecosystem where the culture is youth-centric and the focus was to create the mindset where students from any part of the world will be able to manoeuvre their way through any kind of technological advancement by adopting a creative, innovative and entrepreneurial attitude to life.

Students from 160 countries – both of the developed and developing world - pass through this institution. Its alumni community is spread across the world employed in various capacities in a wide range of industries as well as NGOs, governments and international organisations. The key differential point that separates Limkokwing University from other Universities is, the advantage of centralized decision-making. The Founder Tan Sri Limkokwing being a visionary, has taken major risks in his decisions that has led the institution into markets other institutions from any part of the world would hesitate to penetrate. His personal interests and direct involvement in all strategies to

globalize, enhance facilities, design the infrastructure plus looping industrial patrons and connecting with government leaders has been instrumental in Limkokwing University's remarkable growth. Today the university is established in three continents and has a multinational community of students studying and graduating every year.

Despite the fact that the university has to comply with government guidelines in order to fulfil licensing obligations, its programmes, even if they have to be conventional, have made a point of difference in the delivery, primarily because of the university's ability to bring industry and government expectations into assignments and projects.

With over nineteen MBA programmes and three doctoral programmes the University's post graduate centre has achieved some distinction in Malaysia attracting students keen to acquire industry and government insights to enhance their career progression. The advantage of having off-shore campuses has added further advantage because the exposure to different perspectives provides international intelligence available to few outside of Limkokwing University.

1.2 Industry Liaison

Universities are playing an active role in the process of technological innovation by licensing inventions and discoveries to industry. Spin-off companies, science parks and incubators are examples of the results of university-industry collaboration (Bok, 1982; Bullock, 1983; Stankiewicz, 1986; Wade, 1986). The combination of university knowledge and industrial financial support has led to innovation and the creation of new businesses, jobs and wealth. However, these outcomes are not always easy to obtain. Successful cooperation between industry and the university requires a special kind of synergy. To achieve a successful cooperation agreement, both parties need to be aware of each other's interests and objectives as well as each other's complementary strengths. This triple role allows the university-industry liaison office to have a major impact on the image and the reputation of the university. As the university's service to the community increases over the decade, the importance of the university-industry liaison office is expected to grow. This article describes how a university-industry liaison office can enhance the contribution a modern university makes to the economy of the region, the nation and the world.

The world has witnessed industrial revolutions that have impacted life tremendously and today (2020) IR 4.0 is on track which is, essentially driven by technological revolution. Limkokwing University that began in the year 1992 as an Institute was conceptualised with

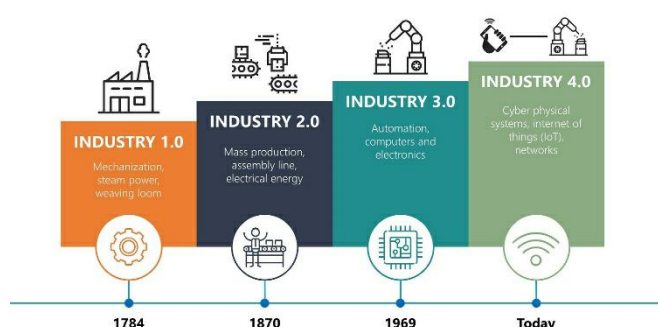


Figure 1 : Industrial Revolution: Evolution Process

creative technology' as a suffix. At that time this represented a tremendous leap in entrepreneurial intent, one that resonated with both government and industry. The Malaysian government, as an essential part of its governance prepares five-year projections to guide both public and private sectors into steering the economy in specified directions. "Creative Technology" was not just visionary, it was also ambitious and audacious. But what was important was its timing. This was a period of transition of the private sector embracing new business and workplace culture influenced by the growing usage of the Internet. The prospects enthralled the business world creating opportunities for a new genre of tech-savvy employees. Since the early 1990s the workplace has completely transformed. The then Limkokwing Institute of Creative Technology was on a trajectory that it had envisaged at an early stage. The suffix in its brand name provided the clue to how human capital development was going to change in the years to come. Even while it resonated with Malaysian industry and government, decades later the name continues to provide the same vision and promise to governments of the developing world to produce the human capital development infrastructure.

As an institution with its core branding anchored in the concept of Creative Technology, Limkokwing University has evolved its programmes according to changes in technology that transformed how the world connected and conducted its affairs, from government to government (G2G), business to business (B2B) government to business (G2B) and business to consumer (B2C). With the onset of the IR4.0 another major leap is taking place as technology deepens the connection between consumer, industry and government in unprecedented ways. The University continues to review and identify technological aspects connected to Cloud Computing, Artificial Intelligence, Internet of Things, Blockchain, Drone Mechanism, Cybersecurity, Fintech, Machine Learning, among others now trending worldwide, leading to the introduction of innovative programmes that will prepare the workforce needed to power the transformation that must take place.

1.2.1 Government Liaison

In similar line of industry liaison, it becomes an inevitable responsibility of institutions to liaise with Government and apex bodies that are associated with federal agencies. Nation building is a phenomenon whereby all elements of society are directly proportionate with its nature of goal and service. If they are disproportionate it is understood those respective divisions will not comply with Government vision. Liaising with Government is to build communications aimed at achieving the national mission of sustainable growth. The process is, perhaps, best understood through the implementation of the

Privatisation Masterplan, a policy introduced in 1983 by the Malaysian government to convert public entities into private bodies. This was a long-term plan involving the transformation of 246 entities. The entire process was new to the government and Limkokwing Integrated worked in partnership to help smoothen and expedite the transition. For government officers who were used to a process of managing and documenting the use of public funds the transition to private enterprise required a change of mindset. The officers needed to embrace a culture that required an understanding of how profit and loss were central to the health of a private entity.

This experience later provided the basis for Limkokwing University to understand the workings of government and the liaison resulted in the establishment of projects developed by the University with almost every government ministry that assisted students to understand the workings of the government machinery.

In this research paper, Government Liaison has been added as moderator at a later stage after understanding its importance. However, as it was included after the analysis was done, the authors have skipped re-doing the analysis as data once collected cannot be re-used for extended researches. But it is to be noted that this particular construct will play a predominant role in nation building approach and it is being proposed in this research paper's conceptual framework.

LITERATURE REVIEW

Globally, there is increased competition among academic institutions, as university research groups compete with their peers to receive funding from large industrial companies to undertake research and technology (R&T) studies. This competition for funding and resources is prompting universities to improve their processes for developing and managing research collaborations with industry (Tucker, 2007). Industrial organizations work with universities to gain access to the intellectual knowledge and creative thinking within the academic environment (Sherwood & Covin, 2008). This can be regarded in terms of the open innovation model (Chesbrough, 2006), in which organizations increasingly partner with external sources for innovation. The motivation for companies is that the knowledge and academic thinking within universities can be utilized to deliver R&T, which can then help them improve their competitive positioning from building technology capabilities (Dooley & Kirk, 2007) through developing enhanced products or services. Industrial organizations are, however, required to justify research funding for universities, and so there is a greater need to capture the wider benefits of such collaborations, i.e., improving the skills and knowledge of the company's staff through knowledge transfer as well as the potential recruitment of technically qualified graduate students as new employees.

Social capital, when including information sharing, trust, and regular and open communication, has been shown to promote alliance development (Hitt, Ireland & Santoro, 2004). Moreover, trust, in conjunction with the level of commitment between partners, has also been identified as a significant indicator of whether or not a university-industry collaboration will be renewed

(Plewa & Quester, 2007). Furthermore, a lack of social connectedness may inhibit the development of university-industry collaborations. Thune (2007) has employed a network embeddedness approach to investigate the role of social capital in developing university-industry collaborations. This study viewed social capital as an underpinning ingredient that helps facilitate collaborations; where social capital is limited, the new collaborations can be seriously hampered. The role of knowledge itself is also fundamentally important to the development and management of collaborations, especially in regard to a company's ability to assimilate knowledge arising from collaborative activities (Barbolla & Corredera, 2009). In this regard, studies have identified the need for more formal mechanisms to enhance knowledge transfer, such as policies for intellectual property rights (IPR) as well as consideration of the relatedness of technology capabilities for the collaborating partners (Santoro & Bierly, 2006). In this research paper, few variables shall be analysed. Culture, Education, IndustryOrientation, Social Responsibility, Investments, Nation Building and Economic Development are the constructs that will be reviewed.

2.1 Construct One - Culture

Economists have been reluctant to rely on culture as a possible determinant of economic phenomena. Much of this reluctance stems from the very notion of culture: it is so broad, and the channels through which it can enter economic discourse, so ubiquitous (and vague) that it is difficult to design testable, refutable hypotheses. Without testable hypotheses, however, there is no role for culture in economics except perhaps as a selection mechanism among multiple equilibria (Greif, 1994, 2006). Culture still plays an active role in Economic development. The cultural aspect of Limkokwing University proves that any institution with secular policies, will be able to contribute more for economic development.

2.2 Construct Two - Education

Limkokwing University works to achieve excellence in delivering quality education. Its entire range of achievements is made possible from institutional policies, which are discussed in detail in the research framework section of this paper. In general, education in every sense is one of the fundamental factors of development. No country can achieve sustainable economic development without substantial investment in human capital. Education enriches people's understanding of themselves and world. It improves the quality of their lives and leads to broad social benefits to individuals and society. Education raises people's productivity and creativity and promotes entrepreneurship and technological advances. In addition, it plays a very crucial role in securing economic and social progress and improving income distribution. Economic development is a complex process and economists have had a difficult time identifying the fundamental factors. At its core this process is one in which financial and human capital are combined in ever more sophisticated and productive ways, and that is why certain countries advance in this process much more rapidly than others.

2.3 Construct Three - Industry Orientation

Industrial Education is proposed as a means of supplying employers with better trained and more adaptable hands. This is substantial when it comes to Limkokwing University. They have been ploughing talents and supplying to industry based on latter's needs. Here "industrial education" is accepted as a fixed and ready-made remedy for the response to needs long since antiquated. But when industrial education is a method of seeking the way that works well in each concrete situation the case is different. Such is apparently the case with modern industry and traditional education. The conscious purposes of the proponents of industrial education are probably vested with social responsibility, as in the case of Limkokwing University. Promoters of industrial education are professedly meeting the needs of the schools or of industry or of both. It is vital for the economic development.

2.4 Construct Four - Social Responsibility

Corporate social responsibility is a type of self-regulatory business plan, with initiatives focusing on achieving economic, social and environmental benefits for all stakeholders involved (employees, consumers, investors and other groups). The purpose of CSR is to encourage businesses to conduct their companies in an ethical manner and work towards having a more positive impact on society through ensuring sustainable growth. Sustainability is often mentioned with CSR and is usually associated with environmental sustainability. However, sustainability can also apply to many other aspects of a business including procurement, economic, hiring and training for example. In the perspective of Limkokwing University, the CSR has been on high on cards. Few can match the University's commitment to the physically challenged where it has provided avenues for the acquisition of skills and thereby expanding the range of careers previously elusive to them. Limkokwing University is, arguably, the only institution of higher education offering special programmes to raise the employability of these youths. The creation of a Special Needs Disability Unit began in 2009 and has graduated disabled youths with credentials in business management, tourism management, professional communications, merchandising & retail, e-commerce, international business, broadcasting & journalism, public relations, graphic design and creative multimedia.

In addition unforeseen situations such as the Ebola outbreak has seen the University engage with government to contribute to the prevention of the disease. The University reacted to the Covid-19 pandemic to provide a video with a 'healing' message which is pegged to its Heal The World initiative that was started in 2009. The campaign in 2009 saw UNICEF partner with the University because they shared the same goals. The University apparently has no self-goal through this, but a social goal of aiding the needy, and in the process awaken the consciousness of its students to social aspects of their responsibility as global citizens.



Figure 2 : Social Responsibility

5 Construct Five - Investments

Investment is one of the most important economic processes that countries attach great importance to as one of the most important components of the economic growth of the country and the main engine of the economic cycle. Having built a successful model in its base country, Limkokwing University became an investor in other developing nations, particularly in the African continent, contributing to nation building of these countries. It has become an institution closely connected with the African agenda to raise the profile of its human capital. The first Asian institution of higher education to establish a campus on the continent some 13 years ago, Limkokwing University works with governments of four countries and is currently engaged with another four more using the smart partnership model of Private Public Partnership. The model created in Malaysia and modified to suit the needs of respective countries has been very successful in enabling thousands to graduate with skills in the use of new technology, trained in creative thinking and imbued with an entrepreneurial mindset.

The investment in education made by Limkokwing has had spin-off developments that have positively influenced other economic sectors namely, banking & finance, property development, security, healthcare, food & beverage, retail, among others. The University has raised employment and built skills that has now led to a diversification of the economy as graduates set up their own businesses in tech-intensive sectors as well as communications and entertainment.

In Botswana the emergence of a second television network was made possible because of the skills that came out of the university. The entire staffing comprised of graduates from the University.

Limkokwing University consistently invested in African countries as an International University and established a market for them.

The University has been able to succeed because its foundation is anchored in a country that has a strong track record as a highly developed Islamic country that, over the past four decades, has made tremendous strides in human and economic development. It has become the first industrial country in the Islamic world. It is also the first in the field of exports and imports in Southeast Asia. National economy, industry, agriculture, minerals, oil and tourism, and made progress in tackling poverty, unemployment, corruption and reducing indebtedness to large levels. Malaysia has benefited from greater economic openness to the outside through its integration into the economies of globalization and we see the progress made clear by transforming it from a country that relies mainly on agriculture to a country of origin for industrial and technical goods, especially in the electrical and electronic industries

(2001), which monitored the most important technology exporting countries in the world.

2.6 Research Framework

Following research framework is been proposed with Hypothesis. This is not a model, but a conceptual framework between independent variables and dependent variable using a mediating and moderating variable. Here in this framework, Independent variables are Culture, Education, Social Responsibility, Education and Investments. The mediator is Institutional policies, whereby for the sake of this research Limkokwing University's policies are used. There are two moderators, that is, Industry Liaison and Government Liaison. And lastly, the dependent variable in Nation Building through Economic Development.

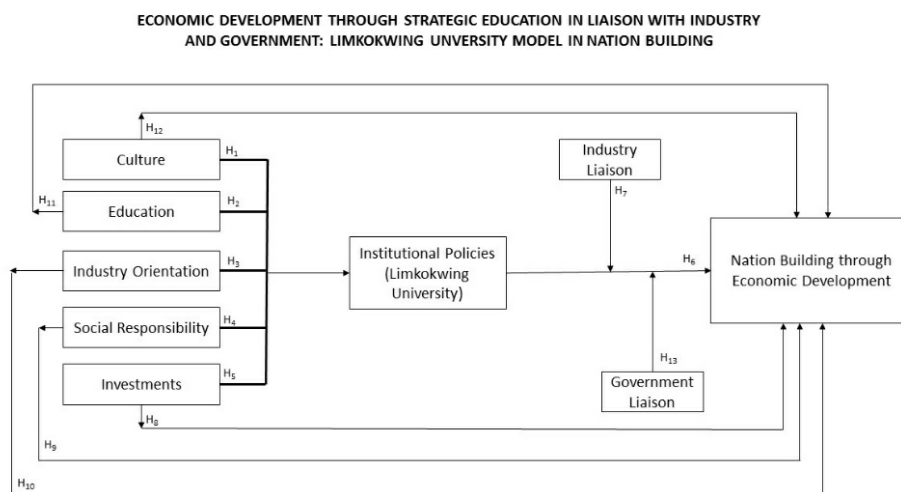


Figure 3 : Conceptual Framework of Research

2.7 Hypothesis

- H₁ – Culture has a significant effect on Nation Building with mediating role of institutional policies and moderating role of industry liaison
- H₂ – Education has a significant effect on Nation Building with mediating role of institutional policies and moderating role of industry liaison
- H₃ – Industry Orientation has a significant effect on Nation Building with mediating role of institutional policies and moderating role of industry liaison
- H₄ – Social Responsibility has a significant effect on Nation Building with mediating role of institutional policies and moderating role of industry liaison
- H₅ – Investments has a significant effect on Nation Building with mediating role of institutional policies and moderating role of industry liaison
- H₆ – Institutional policies mediate between culture, education, industry orientation, social responsibility, investments and nation building through economic development

- H₇ – Industry Liaison moderates Nation Building through Economic Development
- H₈ – Investments has a direct impact on Nation Building through Economic Development
- H₉ – Social Responsibility has a direct impact on Nation Building through Economic Development
- H₁₀ – Industry Orientation has a direct impact on Nation Building through Economic Development
- H₁₁ – Education has a direct impact on Nation Building through Economic Development
- H₁₂ – Culture has a direct impact on Nation Building through Economic Development
- H₁₃ - Government Liaison moderates Nation Building through Economic Development

LIMKOKWING UNIVERSITY – TEACHING WHAT IS NEEDED

After reviewing above hypothesis, it is vital for researchers to focus on the case of Limkokwing University's strategies. It is not that they were used in a mediating role to achieve a mission, but it will give insights to learn about institutional policies. Limkokwing University has an unconventional learning ecosystem designed to stimulate creative thinking aided by technology elements in all the programmes they teach whether it is within or outside the campus. By attaching assignments to practical outcomes through industry involvement students achieve real learning as to how what they learn in the classroom is applied in real life. Additionally, the strength of a multicultural student and staff population nurtures cohesion that expands student understanding of varying perspectives derived from cultural views alien to what they have grown up with. This broadens the mind creating a global mindset and nurtures multicultural competency that later extends into how the students perform when they begin their careers. Through such initiatives the university has built a strong reputation for the character of its graduates who bring this understanding to the workplace that is increasingly global in its operations.

In addition to building this global mindset the university has taken a bold step investing in business incubation activities as a vital part of their practical learning ecosystem. The intention to imbue students with business understanding the university has successfully created a number of units for students to learn the inner workings of an enterprise. The ingenuity of these enterprises comes from establishing units that mirror the students' lifestyle to encourage easy assimilation and a willingness to absorb the learning process. To name few, they comprise units that have grown to become independent business units operating in the campus such as:

- Wings Café – a Starbucks inspired outlet,
- Making Headlines – a hair design boutique,
- Fitofly Fitness Centre – an in-house gym
- Makanlah – an alfresco eatery
- Ten10 Convenience store
- Wings Art and Printshop
- Limkokwing Fashion Club

- Content Creation Centre – for in house video and web content development

The units enable students from different disciplines to work together to build the brand and understand the practicalities of managing the units financially. On campus exist a number of professional enterprises directly managed by the Founder Tan Sri Limkokwing as he continues to interact with NGOs and government to produce creative content for public service messages as well as enhance the country's brand image. These enterprises also work on the university's branding at various capacities and together they provide additional exposure to students who use their semester breaks to intern and build their portfolio.

What makes the Limkokwing University campus a classroom unto itself is the presence of these units that also include the Branding Innovation Centre, Malaysia Design Innovation Centre, Creativity Unlimited and Wings of Creativity. The work that the units have produced over four decades are showcased and provide valuable insights into the strategic planning that had gone into key communications the University had collaborated with the Government. These cover mostly government-to-people communications needed to rally people in support of Malaysian Vision 2020, to promote investments, to build rural entrepreneurship, to promote rural ICT empowerment, to enhance professional knowledge skills through training, to improve digital visualisation for forensic investigations, to promote women and community development, to build international trade promotion, to create national image for sports, among others. Industrial collaborations include the following: building corporate identity by designing logos for entities, retail merchandising, interior design product innovation, packaging design, mascot design, event management, website development and outdoor communications. Similar to this there are several areas where Limkokwing University has stepped in for industrial collaborations with companies such as Samsung, Nokia, Nestle, Mattel, to name a few.

RESEARCH METHODOLOGY

The collaboration between universities and the industry is increasingly perceived as a vehicle to enhance innovation through knowledge exchange. This is evident by a significant increase in studies that investigate the topic from different perspectives. However, this body of knowledge is still described as fragmented and lacks efficient comprehensive view. To address this gap, we employed a systematic procedure to review the literature on universities–industry collaboration (UIC). The review resulted in identifying five key aspects, which underpinned the theory of UIC. We integrate these key aspects into an overarching process framework, which together with the review, provide a substantial contribution by creating an integrated analysis of the state of literature concerning this phenomenon. Several research avenues are reported as distilled from the analysis.

The research methods used structural equation model (SEM) with computer software LISREL and regression with computer software SPSS. The data were collected from 63 respondents consisting of middle and top management level in three SOEs. The finding shows that CSR has a positive effect on leadership with t-test at 8.76 and leadership also had a positive effect on the performance of SOEs with t-test at 2.68. CSR itself directly affected the performance of the

SOEs with t-test at 3.24. The relationship between leadership and performance was mediated by organizational commitment with t-test from leadership to commitment at 2.29 and t-test from a commitment to performance at 2.69. For this study, our main objective was to establish what is known about the key aspects of UIC, and to find out how these aspects may be related so a conceptual development in UIC literature can be achieved. This objective was influenced by our observation that there is a considerable amount of research on UIC which has resulted in extensive literature emphasizing the mechanisms (including initial conditions) that have been developed for the interaction between universities and industry, as well as the outcomes of such collaborations.

3.1 Sampling

Simple Random Sampling is done for this research. Here the group of 63 respondents were considered as sample size based on Krejcie and Morgan 1970 table. There were 75 participants who were willing to share their response on this research topic. Due to social distancing being in practice across the world, the authors used the mode of electronic data collection. These 63 respondents were randomly picked from Simple Random Sampling technique. Respondents were from different demographic background.

3.2 Data Collection

Google Survey forms were used for data collection. An adapted questionnaire with developed questions were implied in this research. Questionnaires were with Likert Scale 5 ranging from strongly agree, agree, neutral, disagree and strongly disagree. Within the period seven days the data were collected completely from electronic mode.

3.3 Research Paradigm

Research Paradigm encompasses Ontology and Epistemology. Here in this paper, Epistemology is been adhered, that is, to know and understand the belief that is known. Bit complicated but this paradigm suits for this research. It is well known that industry liaison builds nation, here it is dealt how this industry liaison along with institutional policies and certain constructs enhances the nation building concept.

DATA ANALYSIS

PLS (Partial Least Squares) SEM-VB (Structural Equation Modelling-Variance Based) was employed to assess the research model by utilising the software SmartPLS 3.0 (Ringle, Wende, & Becker, 2015). A two-phase analytical technique (Anderson & Gerbing, 1988; Hair, Hult, Ringle, & Sarstedt, 2017) consisting of (i) measurement model analysis (reliability and validity) and (ii) structural model analysis (examining the conceptualised relationships) was employed after performing the descriptive assessment. This two-phase analytical technique consisting of a structural and a measurement model assessment is better than a single phase assessment (Schumacker & Lomax, 2004; Hair et al., 2010). While the model of measurement explains each parameter's measurement, the structural model describes the correlation between the parameters in this model (Hair et al., 2017).

4.1 Descriptive analysis

Table 1 presents the mean and standard deviation of each variable in the current study. The respondents were asked to indicate their opinion in relation to nation building and industry liaison based on a 5-point scale ranging from 1 (strongly agree) to 5 (strongly disagree). Customer score the highest with mean 3.831 out of 5.0, with a standard deviation of 0.735.

4.2 Measurement Model Assessment

Construct reliability as well as validity (comprising discriminant and convergent validity) were used to examine the measurement model. The particular alpha coefficients of Cronbach were tested to determine the reliability of every core parameter in the measurement model (construct reliability). The quantities of all the unique alpha coefficients of Cronbach in this research ranged from 0.758 to 0.853, which went beyond the proposed value of 0.7 (Kannana & Tan, 2005; Nunnally & Bernstein, 1994). Moreover, for inspecting construct reliability, all the CR (composite reality) values ranged from 0.861 to 0.910, which went beyond 0.7 (Werts, Linn, & Jöreskog, 1974; Kline, 2010; Gefen, Straub, & Boudreau, 2000). Analysis of indicator reliability was conducted by utilising factor loadings. When the related indicators are very similar, this is reflected in the construct and signified by the construct’s high loadings (J. F. J. Hair et al., 2014). As per Hair et al. (2010), the exceeding of values beyond 0.70 suggests substantial factor loadings.

AVE (average variance extracted) was employed in this study to analyse *convergent validity*, which represents the degree to which a measure is correlated positively with the same construct’s other measures. All the AVE values ranged from 0.618 and 0.772, which went beyond the proposed value of 0.50 (J. F. Hair et al., 2010). Thus, all constructs have complied with the convergent validity acceptably, as shown in Table 1.

Table 1:Measurement model assessment

Constr ucts	Ite m	Lo ad in g (> 0. 7)	M	S D	α (> 0. 7)	C R (> 0. 7)	A V E (> 0. 5)
Cultur al Orient ation (CO)	E OI	0. 87					
	1	6	3	0.	0.	0.	0.
	E	0.	.	7	85	91	7
	OI	89	7	8	3	0	7
	2	4	0	8			2
	E	0.	7				
	OI	86					
	3	6					

Education Orientation (EO)	E	0.					
	O	82					
	P1	3	3	0.	0.	0.	0.
	E	0.	.	7	79	87	7
	O	84	6	8	2	8	0
	P2	0	7	3			6
	E	0.	6				
Industry Orientation (IO)	O	85					
	P3	7					
	E	0.					
	O	83					
	R	3	3	0.	0.	0.	0.
	1	0.	.	7	75	86	6
	E	80	7	4	8	1	7
O	8	3	8			3	
R	0.	3					
2	82						
E	0						
Social Responsibility (SP)	O	0.					
	P	79					
	F1	9	3	0.	0.	0.	0.
	O	0.	.	7	76	86	6
	P	78	6	7	8	6	8
	F2	7	4	7			4
	O	0.	7				
P	89						
F3	1						
Investments (IN)	O	0.					
	P	77					
	C	1					
	1	0.	3	0.	0.	0.	0.
	O	77	.	7	79	86	6
	P	9	8	3	4	6	1
	C	0.	3	5			8
2	78	1					
O	9						
P	0.						
C	80						
3	6						
Institutional Policies	O	0.	3	0.	0.	0.	0.
	PI	75	.	7	79	86	6
	P1	9	7	3	5	7	1
	O	0.	8	4			9

(IP)	PI	80	1					
	P2	0						
	O	0.						
	PI	79						
	P3	9						
	O	0.						
	PI	78						
	P4	9						
	O							
	P							
	L							
	G							
	1	0.						
	O	80						
	P	5						
	L	0.						
Indust	G	84	3	0.				0.
ry	2	4	.	7	0.		0.	6
Liaiso	O	0.	7	7	84		89	7
n	P	80	3	7	2		4	8
(OL)	L	4	7	9				
	G	0.						
	3	84						
	O	0						
	P							
	L							
	G							
	4							

Note: M=Mean; SD=Standard Deviation, α= Cronbach’s alpha; CR = Composite Reliability, AVE = Average Variance Extracted.

Key: CO- Cultural Orientation, EO- Education Orientation, IO – Industry Orientation, SP – Social Reponsibility, IN – Investments, IP – Institutional Policies, IL – Industry Liaison

The degree to which the articles distinguish among concepts or measure different constructs is demonstrated by discriminant validity. Fornell-Larcker was employed to analyse the measurement model’s discriminant validity. Table 2 shows the outcomes for discriminant validity by employing the Fornell-Larcker condition. It was discovered that the AVEs’ square root on the diagonals (displayed in bold) is bigger than the correlations among constructs (corresponding row as well as column values), suggesting a strong association between the concepts and their respective markers in comparison to the other concepts in the model (Fornell & Larcker, 1981; Chin, 1998). According to Hair et al. (2017), this indicates good discriminant validity. Furthermore, the exogenous constructs have a correlation of less than 0.85 (Awang, 2014). Therefore, all constructs had their discriminant validity fulfilled satisfactorily.

Table 2: Fornell-Larcker criterion

	CO	EO	IO	SP	IN	IP	OL
CO	0.879						
EO	0.709	0.840					
IO	0.675	0.696	0.821				
SP	0.632	0.648	0.697	0.786			
IN	0.542	0.550	0.585	0.644	0.827		
IP	0.645	0.663	0.655	0.674	0.542	0.787	
OL	0.679	0.642	0.707	0.655	0.545	0.706	0.824

Note: Diagonals represent the square root of the average variance extracted while the other entries represent the correlations. **Key:** CO- Cultural Orientation, EO- Education Orientation, IO – Industry Orientation, SP – Social Responsibility, IN – Investments, IP – Institutional Policies, IL – Industry Liaison

This research had twelve hypotheses, however, for the purpose of proving the primary elements the first three constructs were tested using Structural Equation Modelling. Following are the results. P-Value is apparently within the threshold and this proves the variables has significant relationship with dependent variable.

Table 3: Structural path analysis result

Hypot	Relations	Std	Std	t-	p-	Decision	R
thesis	hip	Bet	Error	value	valu		e
		a			e		2
H1	CO→NB	0.280	0.055	5.085	0.000	Supported	0.72
H2	EO→NB	0.250	0.063	3.991	0.000	Supported	
H3	IO→NB	0.419	0.063	6.678	0.000	Supported	

CONCLUSION

Through this research paper, it is understood that nation building through economic development can be attained with severe educational strategies. The Limkokwing University model has been used here to illustrate approaches that go beyond the normal expectations of educational institutions in assisting the student to understand how he/she fits into the scheme of life instead of only focusing on academic fulfilment for the awarding of degrees. This has required strategic collaborations with both industry and government so students gain understanding of the functions of both entities. Through such interactions students obtain a clearer understanding of how the fields they have chosen to study fit in the real world and what the expectations will be for them to be successful in their careers. It helps students stay grounded and achieve practical solutions. Through its institutional development, governments, particularly those of the African continent, have found a partner in their human capital development agenda and this has allowed some of the nations to make new economic projections with confidence. A number of these nations have found it easier to diversify their economies and those with

limited natural resources have the confidence to venture into technology-driven development. With tech-competent human capital they are also able to plan for foreign direct investment. Thus, through culture, education, investments, social responsibility it is apparent that nation building can be made possible, importantly, along with Economic Development if the model used is based on inclusion of industry and government collaborations.

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