

THE ROLE OF HIGHER EDUCATION INSTITUTIONS IN THE DEVELOPMENT OF SMES IN ZIMBABWE

Mapeto Bomani

Botswana International University of Science and Technology
E-mail: bomanim@biust.ac.bw

Ziska Fields

University of KwaZulu-Natal
E-mail: fields@ukzn.ac.za

Evelyn Derera

University of KwaZulu-Natal
Email: dererae@ukzn.ac.za

—Abstract —

The role of universities in promoting Small and Medium Enterprise (SME) development has attracted much interest among researchers worldwide. These Higher Education Institutions (HEIs) constitute several governments' grand strategies of promoting the development of small businesses. The purpose of this paper is to explore the role of Higher Education Institutions (HEIs) in promoting the development of SMEs in Zimbabwe. Interpretivism was adopted as a philosophy to guide the study. The study adopted a qualitative approach in which data collection was conducted through in-depth interviews. Respondents were drawn from six state universities through convenience and purposive sampling. Data analysis was conducted through content analysis. The results of the study revealed that the HEIs are promoting the development of SMEs through technology transfer, workshops on SMEs, short courses for small businesses and providing consultancy services. Furthermore, HEIs also provide skilled manpower for SMEs, and Entrepreneurship courses in the curriculum to create an entrepreneurial spirit among students. The study recommends that sector-specific training programmes must be provided for manufacturing, retail and services sectors. Additionally, the curriculum needs to be reviewed such that Entrepreneurship becomes a core module in all degree programmes to further

promote an entrepreneurship culture among students and produce graduates that have an entrepreneurial mindset. Incubation centres also need to be established at universities to reduce the risk of failure among SMEs. Universities should partner with government ministries and the industry to effectively support the development of SMEs in Zimbabwe.

Key Words: Higher education institutions, development of SMEs, universities, training, technology transfer, entrepreneurship.

JEL Classification: M19

1. INTRODUCTION

The role of universities in promoting the development of SMEs has attracted much attention among researchers worldwide. HEIs, in the form of universities, should meet the socio-economic needs of a country (Kasim, 2011). Furthermore, they are critical in creating a knowledge-based economy and providing entrepreneurship education which instils an entrepreneurial culture among students and the community (Efi, 2014). The main objective of entrepreneurial education is to provide stakeholders with the relevant and adequate knowledge, skills, aptitude and exposure that promote the development of SMEs. Companies, including SMEs, use knowledge, expertise and facilities of universities to build their technological capabilities that promote the production and provision of high quality products and services. In addition to that, universities produce highly qualified and skilled human capital that is absorbed by SMEs (Darwish, 2014). Universities make research results available to students and SMEs. Such an interaction between HEIs and SMEs promotes creativity, innovation and technology transfer, which are critical for economic development (Darwish, 2014; O'Malley, 2016) and national competitiveness (Moeliodihardjon *et al*, 2012).

Studies have been conducted on the role of universities in promoting the development of SMEs. For example, Darwish (2014) conducted a study on the role of universities in developing small and medium enterprises in Bahrain. Similarly, Nicholaides (2011) studied the role of higher education in South Africa. Kasim (2011) conducted a similar study on how Malaysian HEIs have shaped the entrepreneurial agenda. However, scanty literature exists on the role of HEIs in enhancing the growth of SMEs in all sectors of the economy. Therefore, the

current study seeks to plug that gap. Not much research has been conducted on the role of Zimbabwean HEIs in promoting SME development. Thus, the current study seeks to plug the gap. Saruchera *et al.* (2014:252) did a similar study in Zimbabwe, but focused on the case of Chinhoyi University of Technology in promoting technology transfer to SMEs in the manufacturing sector. The current study focuses on SMEs in all sectors of the economy. Moreover, the researcher covers six state universities in Zimbabwe so as to have a clear view of the role of HEIs in supporting the development of SMEs. That makes the study unique and hence its distinctive contribution.

2. LITERATURE REVIEW

Universities operate in an environment that is constantly changing. Therefore, the HEIs' curricula also change to address short-term and long-term societal challenges (Kurasha & Chabaya, 2013). Unemployment, extreme and persistent poverty, gender inequality and slow economic development are some of the challenges confronting the world today (World Economic Forum, 2016). Entrepreneurship has been identified as one of the solutions to these challenges (Musanzikwa, 2014; Maunganidze, 2013). Educational institutions are a critical, indispensable element of entrepreneurship. Against this background, the success of entrepreneurship in any society depends on the quality of its higher education. In the light of this understanding, governments have positioned HEIs in such a way that they play a central role in economic development (O'Malley, 2016). In this context, HEIs have become engines for national prosperity as substantiated by Alexander and Eugeny (2012:47) who note that "Universities are agents of economic and technological development". Therefore, universities are increasingly expected to establish and maintain linkages with businesses, especially SMEs (Piterou & Birch, 2014). SMEs constitute more than 95 % of the registered businesses in the world and contribute approximately 60 % of the jobs in the private sector as well above 50% of the world GDP (Edinburgh Group, 2012). Such a critical sector requires skills and knowledge to develop their innovative capabilities and improve their competitiveness.

Zimbabwe has fifteen universities, nine of which are public institutions while six are privately owned. These institutions were established for the purpose of imparting tertiary education in the form of skills and knowledge to enable graduates to secure employment and contribute to the development of Zimbabwe. However, the job market is shrinking due to the closure of companies as a result

of the unfavourable macro- economic environment. On realising this, HEIs have had to train the graduates such that they start their own businesses (SMEs) to create employment rather than seek employment. Universities, through their community service programmes (Bukaliya & Hama 2012) and formal programmes contribute to addressing societal challenges. One of the challenges facing Zimbabwe is unemployment, which universities have to help address.

Additionally, HEIs have been involved in training, technology transfer and the provision of research information to the established businesses and start-ups (O'Malley, 2016; Technopolis Review, 2011). This is confirmed by a study conducted by Darwish (2014) in Bahrain. Furthermore, results of a study in the UK by Piterou and Birch (2014) indicated that universities transfer technology to SMEs through business incubation. Thus, universities “are involved in the production and diffusion of public knowledge across research, teaching and innovation” (Universities UK, 2015). HEIs are also commercialisation agents of research ideas (Alexander & Eugenyi, 2012).

The Zimbabwe government encourages universities to be actively involved in the country's economic development. That explains why universities like the Harare Institute of Technology (HIT) and Chinhoyi University of Technology (CUT) have become centres of technical training for SMEs (Technopolis Review, 2011). A study in Nigeria by Efi (2014) concurs by revealing that universities are important for training, and knowledge and technology transfer. The HIT has a technology centre where students and SMEs are trained to understand the stages of product development, from invention to commercialisation (Technopolis Review, 2011). The technology centre at HIT is the heart of the ‘science park project’ in Zimbabwe. The university also has a Technopreneurship Development Centre where technical students and SMEs are taught entrepreneurial skills. These skills have assisted manufacturing SMEs (Kangondo, 2012). The Indo-Zimbabwe Project is housed within the technology centre of the HIT (Kazunga, 2013). Manufacturing SMEs approach the Indo-Zimbabwe Project at HIT to source spare parts for their machinery (Kazunga, 2013). Moreover, the university has hosted Global Entrepreneurship Training for Zimbabwe and Southern Africa (HIT, 2016). Such training focused on the importance of entrepreneurship, creative innovation, business law, ethics, intellectual property, financial engineering, business communication and strategic planning (HIT, 2016). SMEs, academics, and government officials acquired valuable skills and knowledge that would promote the development of small businesses.

Additionally, HEIs create a high-calibre workforce for the SMEs. In Zimbabwe, large companies have closed down due to the unstable macroeconomic environment. Therefore, the university graduates are being absorbed by the SMEs (Rwafa, 2006, cited in Zindiye *et al.*, 2012). Universities also provide a cheap source of labour for SMEs through industrial attachments with students for approximately 12 months.

HEIs have also made their research findings freely accessible on the Internet (Gibb *et al.*, 2013). The number of online academic journals and of the academics who publish their work online has increased over the years. The research findings provide an important source of valuable information for SMEs. Zimbabwean academics are an important part of SME growth in Zimbabwe through presentations at business expos where SMEs attend and exhibit their products (ZimMarketer, 2014). Knowledge gained from the expos is necessary for the development of the SME sector.

3. CONCEPTUAL FRAMEWORK

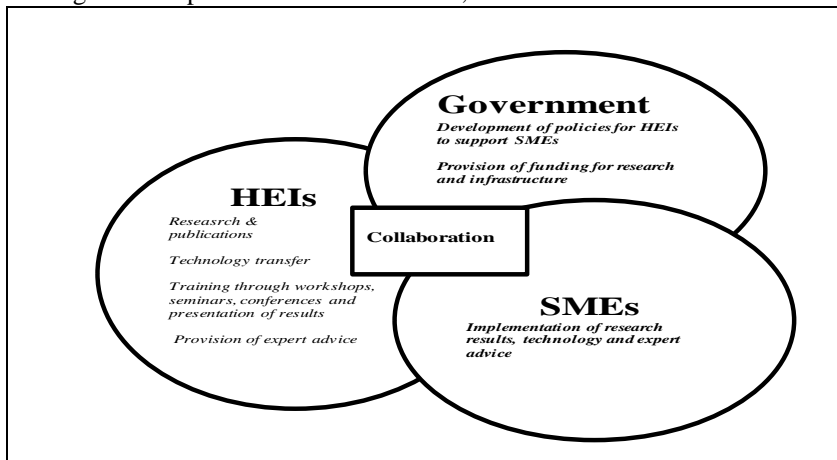
The Triple Helix Model (THM) is relevant as a conceptual framework for explaining the role of HEIs in promoting the development of SMEs. Silva *et al.* (2012) note that the model was formalised by Etzkowitz and Leydesdorff (1997) to explain the interaction among universities, enterprises (business or industry) and the government in promoting innovation and technology transfer. Avvari (2011) further observes that the THM “is based on the perspective of university as a leader of the relationship with business and government to generate new knowledge and innovation for economic development. Countries that are transforming from the resource-based to knowledge-based economies are emphasising the THM as a source of innovation and development. Against this background, governments are including HEIs in the development strategies and policies (Avvari, 2011). This study suggests that the THM of converging HEIs, business sector and government can be applied as a basic approach to promote the development of SMEs in Zimbabwe. Such an interaction among stakeholders leads to economic transformation.

According to the THM, HEIs are viewed as centres for the provision of entrepreneurial education and producing graduates to address the needs of business (SMEs) (Universities UK, 2015). Furthermore, HEIs also conduct research and disseminate results for the benefit of businesses (SMEs) (Oh, 2011).

New products are manufactured from research results. Therefore, universities are the core of innovation (Oh, 2011). Universities establish spin-off companies in incubators for the commercialisation of Research and Development products (Piterou *et al.*, 2012).

The government, through its various policies, regulatory agencies and financial support, imposes and influences actions and activities that enhance the development of businesses (SMEs) (Silva *et al.*, 2012). As illustrated in Figure 1, the government provides the requisite infrastructure for the growth of the SME sector. As a policy maker, the government may also provide a commercialisation incentive to universities by granting them ownership of intellectual property emanating from their research (Siyanbola *et al.*, 2012). In response to the support from the HEIs and government, the business sector (SMEs) implements the research results, technology and expert advice. Furthermore, the funding from the government is used for business development. Figure 1 illustrates the relationship between the HEIs, government and SMEs.

Figure 1: Triple Helix Model for HEIs, Government and SMEs



Source: Adapted from Ranga & Etzkowitz (2013:07)

4. RESEARCH METHODOLOGY

The purpose of the study was to explore the role of HEIs in the development of SMEs in Zimbabwe. A qualitative approach was adopted. Therefore,

interpretivism became the suitable research paradigm. An interpretivist researcher believes that knowledge or reality is constructed by social actors and how people perceive it (Creswell, 2011). Convenience sampling was employed in the selection of six state universities. Research participants were purposively sampled. The researcher employed in-depth interviews with participants from six state universities in which open-ended questions were used. Content analysis was used in the analysis of empirical evidence. The identity of the respondents was protected by using numbers, 1 to 6. Table 1 illustrates the universities involved in the study as well as their provinces.

Table 1: Universities involved in the study

University	No of Participants	Province	Respondent No:
Bindura University of Science Education	1	Mashonaland Central	1
Chinhoyi University of Technology	1	Mashonaland West	2
Great Zimbabwe University	1	Masvingo	3
Harare Institute of Technology	1	Harare Metropolitan	4
University of Zimbabwe	1	Harare Metropolitan	5
Zimbabwe Open University	1	Covers the country's 10 provinces	6

Source: Data collected in the study

5. PRESENTATION AND DISCUSSION OF RESULTS

This section presents an analysis of the in-depth interviews conducted with respondents from the six state universities. The respondents interviewed were experienced members of the academic staff who had interacted with SMEs.

5.1 The role of universities in promoting the development of SMEs

The results of the study revealed that Zimbabwean universities are promoting the development of SMEs through technology transfer, imparting knowledge about process of formalising business operations, management, financial literacy, marketing and business plan writing. HEIs also conduct research and commercialise innovative business ideas for the benefit of SMEs. Furthermore, strategic partnerships have been created with government ministries to promote

entrepreneurship and SME development. The following were some of the statements made by participants during data collection: Respondent 4 stated that:

“In its curriculum, the university has included technopreneurship that enables Engineering students to establish SMEs”.

The quote illustrates that, besides the usual degree programmes of engineering and technology, students are imparted with entrepreneurship skills in their areas of specialisation. Such knowledge is critical for the establishment of SMEs. This is consistent with Technopolis Review (2011), which identifies universities as centres for acquiring entrepreneurial skills.

One of the obstacles to SME development in Zimbabwe is lack of skills. Universities are in the process of addressing this challenge by providing skilled labour for the SMEs. Graduates have management, financial, technical and marketing skills which are required by SMEs. This is illustrated by Respondent 1 who indicated that:

“As a university we are releasing many graduates into the labour market... and most of the graduates are absorbed by SMEs. Our graduates have skills have marketing, financial, management and technical skills”.

The respondents implied that SMEs have become the employers of many university graduates (Chingwaru, 2014), given that SMEs constitute the majority of businesses (Edinburgh Group, 2012). University graduates are being absorbed by the SMEs (Rwafa, 2006, cited in Zindiye *et al.*, 2012) because larger companies closed down due to the unfavourable macro-economic environment. Skills acquired from universities play an important role in the development of SMEs.

Universities are also actively involved in technology transfer to SMEs. Technical skills are required especially among SME in the manufacturing and information technology businesses. Therefore, the transfer of skills to such businesses becomes necessary. For example, Respondent 4 stated that:

“The university houses the Indo-Zimbabwe Project. This is a project between

the government of Zimbabwe and India. The project was meant to transfer technology to SMEs and promote SME access to machinery and spare parts.”

The respondent shows that the university has accommodated a government project that seeks to promote the development of the SME sector. The technology transfer has positively impacted on the quality of products manufactured by SMEs. The findings concur with the existing literature. Kazunga (2013) notes that the Indo-Zimbabwe Project is in the Technology Centre of the HIT and is a source of machinery spare parts. Ryan and Mohammed (2013) maintain that universities are agents of technology transfer.

Business and entrepreneurship clubs established at universities stimulate an entrepreneurial spirit among students. As students interact among themselves and with the businesses people, an entrepreneurial mindset is developed. Entrepreneurship clubs also impart business planning skills. This is consistent with what Respondent 5 noted:

“The university has established a very powerful social club, Enactus-Boost Fellowship, where students are groomed for entrepreneurship. The fellowship facilitates students’ interaction with SMEs in which they apply the skills as well as acquire practical experience.”

The statement indicates that social clubs can be a powerful tool for promoting SMEs. Students are required to develop business ideas and then prepare business plans for local and international competitions. The students’ interactions with SMEs expose them to the practical world of business. The experience acquired and the knowledge gained promotes the development of new businesses and the growth of existing ones. O’Malley (2016) concurs with the results by stating that HEIs provide training opportunities for students and the community. Training for students can either be formal or informal.

Business failure is partly linked to inadequate business management skills. As part of community engagement, universities are involved in the training entrepreneurs in technical, management, financial, marketing and communication skills. Such skills are essential for the development of SMEs. Business failure is partly linked to the inadequate business management skills. This concurs with the statement made by Respondent 2:

“The university provides technical and business management training to the local community to promote the growth of the sector. It is part of our community service and we feel duty-bound to contribute to the local economic development”.

The quote shows that universities are involved in training local entrepreneurs to promote local economic development. Technopolis Review (2011) concurs by noting that universities have become centres of technical training for SMEs. Knowledge gained through training builds SMEs’ technological capabilities that consequently improve the quality of products and services.

High rate of unemployment among university graduates (Chipangura & Kaseke, 2012) has become one of the major challenges in the Zimbabwean economy. HEIs have created partnerships with government ministries in promoting SMEs and entrepreneurship to reduce the level of unemployment. Respondent 6 commented that:

“The university has partnered with the Ministry of Youth, Indigenisation and Economic Empowerment in the provision of finance to university youth graduates for starting businesses”.

The statement shows that the government cannot alone address all the socio-economic challenges, but needs to partner with other institutions. Universities, by their nature, cannot provide funding to SMEs or invest in them. HEIs provide skills while some government ministries and agencies provide funding. Therefore, partnerships between universities and government ministries become important in enhancing the growth of SMEs. Extant literature emphasises linkages and partnerships between HEIs and business (Piterou & Birch, 2014). However, the results of this study also indicate the importance of linkages and partnerships with government ministries and agencies.

Universities also extend life skills and entrepreneurship training to prisoners. The reason behind being that, after prison life, they become productive and self-reliant. Respondent 1 indicated that:

“The university has trained inmates at a local prison. The training covered life skills and entrepreneurship.....how to start a business, preparing a business proposal and business finance and management”.

The respondent indicates that universities extend their services to other institutions and individuals with a view to promote SME development. Trained inmates have the potential of becoming productive and acceptable to society. Therefore, university community service assists in addressing socio-economic challenges (Bukaliya & Hama 2012).

Universities conduct research in various fields, including entrepreneurship and SMEs. Such researches are accessible to SMEs through various means, including online publication, workshops or in printed form. Research results are an important source of information for SMEs. Respondent 3 commented:

“Researches conducted by the university produce valuable information for SMEs. Much of the information is online. If the research results are properly used, they can contribute to the growth of the sector”

The respondent shows that researches are also important for SME growth. Much of the information is freely available online. Gibb *et al.* (2013) concurs by stating that HEIs have also made their research findings freely accessible on the Internet. Valuable business ideas, management techniques and business skills can be obtained from the research results.

RECOMMENDATIONS

Based on the findings of the study, the researchers recommend that sector-specific training programmes must be provided for manufacturing, retail and services sectors. Each sector is unique and has specific skills requirements. Additionally, the curriculum needs to be reviewed such that Entrepreneurship is include in most degree programmes to further promote an entrepreneurship culture among students and produce graduates that have an entrepreneurial mindset. The level of unemployment in Zimbabwe is high and graduates need to be prepared for such an environment. South African universities such as Durban University of technology and University of KwaZulu-Natal have established business incubation centres. Zimbabwean universities may also need to have such centres to reduce the risk of failure among SMEs. Universities need to establish more partnerships with government ministries and the industry to effectively support

the development of SMEs in Zimbabwe. Centres for entrepreneurship may need to be established at universities. The University of Cape Town and University of Witwatersrand have such centres for conducting research and providing information for entrepreneurs

CONCLUSION

The purpose of the study was to explore the role of HEIs in the development of SMEs in Zimbabwe. The results revealed that HEIs are instrumental in the development of SMEs through training, technology transfer, clubs, research and the commercialisation of research. The study recommends the establishment of entrepreneurship centres at universities and more partnerships with government ministries and industry. Furthermore, business incubation centres need to be established at HEIs to reduce the failure rate of SMEs. In addition to that, the curriculum needs to be redesigned such that every degree programme has Entrepreneurship as a core module in order to produce graduates with an entrepreneurial mindset. The importance of the study lies in that it suggests HEI strategies that further enhance the growth of the SME sector. Focusing on only six state universities is a limitation of this study. A larger sample would have allowed us to conduct a more powerful analysis. Further studies should focus on the challenges facing HEIs in promoting the development of SMEs.

REFERENCES

- Alexander, U and Eugeny, P. (2012). The entrepreneurial university in Russia: from idea to reality. 10th Triple Helix Conference 2012. *Procedia-Social and Behavioural Sciences*, 52(2012), 45-51.
- Avvari, M.V. (2011). A Tale of Two 3-Helix like efforts in Malaysian Biotechnology Industry. *WTA Technopolis Review*, 12 (3), 41-49.
- Brinda, K. P. R. and Dileep, K. M. (2011) Motivational factors, entrepreneurship and education: Study with reference to women in SMEs. *Far East Journal of Psychology and Business*, 3 (3), 14-35.
- Bukaliya, R. and Hama, A. (2012). Challenges affecting informal business funding in Zimbabwe: Implications for Zimbabwe Open University. *The African Symposium: An Online Journal of the African Educational Research Network*. <https://www.ncsu.edu/aern/TAS12.1/TAS12.1Bukaliya.pdf>. Accessed 18/05/2015.

Chingwaru, T. (2014). Impact of trade and economic liberalization policy reforms on the operations of selected small to medium enterprises (SMEs) in Zimbabwe. A comparative study with South African experiences. PhD thesis. Durban: Durban University of Technology.

Chipangura, A and Kaseke, N. (2012). Growth constraints of small and medium enterprises (SMEs) at Gen View Furniture Complex (GFC) in Harare (Zimbabwe). *International Journal of Marketing and Technology*, 2(6), 40–83.

Creswell, J.W. (2011). Designing and conducting mixed methods research (2nd edition). Thousand Oaks, CA: Sage.

Darwish, S. (2014). The Role of Universities in Developing Small and Medium Enterprises (SMEs): Future Challenges for Bahrain. *International Business and Management*, 8(2), 70-77.

EDINBURGH GROUP. (2012). Growing global economy through SMEs. http://www.edinburgh-group.org/media/2776/edinburgh_group_research_-_growing_the_global_economy_through_smes.pdf. Accessed 12/05 2015.

Efi, A.E. (2014). The Role of Higher Institutions in Promoting Entrepreneurship and Small Business in Developing Nations: The Nigerian Experience. *International Journal for Innovation Education and Research*, 2(9), 15-22.

Etzkowitz, H.; Leydesdorff, L. (1997). Introduction to special issue on science on policy dimensions of the Triple Helix of university-industry-government relations. *Science and Public Policy*, 2-14.

Gibb, A., Hoffer, A.R. and Koffen, M. (2013). *The entrepreneurial higher education institution: A review of the concept and its relevance today. HeinnoVate*, https://heinnovate.eu/intranet/tef/downloads/HEInnovate_Analytical%20paper.pdf Accessed 23/02/ 2015.

Harare Institute of Technology (2016). *Global Entrepreneurship Training (Southern Africa) Officially Opened*, <https://www.hit.ac.zw/news/global-entrepreneurship-training-southern%20africa-officially-opened.html>. Accessed 12/02/2018

Kasim, R.S.R. (2011). Malaysian Higher Education Institutions: Shaping an Entrepreneurial Agenda. *International Journal of Information and Education Technology*, 1 (2), 163-170.

Kazunga, O. (2013). *Government to set US\$1 million Skills Development Centre for SMEs. Chronicle*, 4 November 2013. *Business News*.

<http://www.chronicle.co.zw/govt-to-set-up-1m-skill-development-centre-for-smes/>. Accessed 12/11/2013.

Kurasha, P. and Chabaya, R.A. (2013). Curriculum development and implementation: Factors contributing towards curriculum development and implementation in Zimbabwe higher education system. *European Social Sciences Research Journal*, 1(1), 1–11.

Maunganidze, F. (2013). The role of government in the establishment and development of SMEs in Zimbabwe: Virtues and vices. *Journal of Business Administration and Education*, 4(1), 1-16.

Moeliodihardjo, B.Y., Soemardi, B.W., Brodjonegoro, S.S., Hatakenaka, S. (2012). University, Industry, and Government partnership: its present and future challenges in Indonesia. 10th Triple Helix Conference 2012. *Procedia - Social and Behavioural Sciences*, 52 (2012) 307-316.

Musanzikwa, M, (2014). (2014). Managing small to medium enterprises suppliers in developing countries-A case of SMEs in Harare, Zimbabwe. *Science Journal of Business and Management*, 2(1), 35-43.

Nicolaides, A. (2011). Entrepreneurship-the role of Higher Education in South Africa. *Educational Research*, 2(4), 1043-1050.

O'Malley, B (2016). Universities playing 'key role' in growth of start-ups. *University World News*, 398 (2016).

Oh, D.S. (2011). Academia, Industry and Government Cooperation in Science & Technology Park: Case of Daedeok Innopolis, Korea. *WTA Technopolis Review*, 12 (3), 28-40

Piterou, A. and Birch, C. (2014). The role of Higher Education Institutions in supporting innovation in SMEs: university-based incubators and student internships as knowledge transfer tools. *The Journal of Innovation Impact*, 7(1), 72-79.

Ranga, M. and Etzkowitz, H. (2013). Triple Helix Systems: An Analytical Framework for Innovation Policy and Practice in the Knowledge Society. *Industry and Higher Education*, 27 (4), 1-48.

Ryhan, E and Mohammed, F.R. (2013). Technology role in higher education and its impact on knowledge facilitation. *International Journal of Scientific & Technology Research*, 2(11), 193-198.

Saruchera, Tukuta, M., Ndoda, G.R. and Sikwila, M.N. (2014). Driving Industry Growth through Academic Excellence: A study on the strategic contribution of university-industry knowledge transfer in revamping manufacturing SMEs in developing economies. *Mediterranean Journal of Social Sciences*, 5(14), 252-259

Silva Y.F., de Freitas, C.C, Paranhos, J., Hasenclever, L. (2012). University and the local development in Goiás – Brazil. 10th Triple Helix Conference 2012. *Procedia - Social and Behavioural Sciences*, 52 (2012), 269-278.

Siyanbola, W.O., Oladipo, O.G., Oyewale, A.A., Famurewa, A.J. and Ogundari, I.O. (2012). Academia-Industry Interactions in Nigeria Pharmaceutical Innovation System. 10th Triple Helix Conference 2012. *Procedia - Social and Behavioural Sciences*, 52 (2012), 279-289.

Technopolis Review. (2011). *World Technopolis Association*, 3(12). Spring Issue, <http://www.wtanet.org>. Accessed 16/07/2014.

Universities UK (2015). The funding environment for universities 2015- Economic role of UK universities. London: Woburn House.

World Economic Forum. (2016). World Economic Forum on ASEAN: Asia's Economic Outlook: Trade, Wars. <https://www.weforum.org/agenda/2016/01/what-are-the-10-biggest-global-challenges/>. Accessed 12/09/2018

ZimMarketer. (2014). Synergies for the future: maximizing brand exposure in the 21st Century. *Official Magazine: Marketers Association of Zimbabwe*, 1(2014).

Zindiye, S, Chiliya, N and Masocha, R. (2012). The impact of government and other institutions' support on the performance of small and medium enterprises in the manufacturing sector in Harare, Zimbabwe. *International Journal of Business Management and Economic Research*, 3(6), 655-667.