

The Positive Effects of the Implementation of ICT with Knowledge Management in Business Industries in Developing Country, Such as in Bhutan

Sonam Wangmo¹, Tsheten Dorji²

Abstract: *This research assesses the analytical concerns on the implementation of ICT (Informational Communication Technology) into knowledge management (KM) and how they could bring an effective improvement for the business industries in developing countries. Since the most common cause of the failure was a lack of proper framework and methodology, this research would bring a theoretical framework that would be responsive to some critical issues. Additionally, it would guide to be innovative. However, there are further research required for the framework and it could be debatable for the implementation in the remote part of those developing countries. Therefore, this paper aims to identify how ICT could bring greater and better improvement in business through knowledge management.*

1. Introduction

In case of one a developing country, such as Bhutan, it was isolated until 1999, when Bhutan's first ever television broadcasted. Since then, there was a rapid growth in ICT (Yoichiro Ishihara, 2017). However, a lack of knowledge and skilled labor has been the issue according to the report on National Human Resource Development Needs of the Kingdom of Bhutan (MoLHR, 2010). Numerous business has been taking place. Apart from other environmental factors, knowledge management and application have contributed to its failure. application of knowledge methods and skills has become a challenging one and a core mechanism that would no doubt be an advantage to a global business (Zhang, 2005).

Thus, as mentioned in the Constitution of Bhutan, Article 9, Principles of State Policy, clause 9 states that the country should endeavor any method to promote a certain project (MoWHS, 2016), this research aims to analyze how to develop an effective approach by implementing ICT and knowledge in a business management. As this framework would try to solve the reasons for the failure of managing successful businesses, dealing with major issues such as cost, deliverable quality, time and resources it would also play a vital role in developing a business as a whole. Thus, refining business quality.

While on the other hand, managing a business includes but not limited to: requirements for the business, needs and concerns of the consumers (PMI, 2017), this research tries to solve a major issue concerning business scope, profit and the risks associated. Therefore, involvement of ICT with knowledge into a business would not only solve any issues related to a business, but also an employment program for a nation. Bangladesh is one of an exemplary nation that has implemented 'sophisticated ICT' with knowledge in their business leading to the most efficient and effective business (Dr. Islam, 2016). Finally, cost effect might be one of the major challenges in Bhutan.

2. Limitations

Although this research has reviewed a detail experiences of experienced business sectors, it aims to understand the business market in Bhutan and compares with high technology advanced business. However, not apprehensive about any geographical situations of the country or as such of any particular zone. In addition, it has overlooked minor issues such as unemployment conditions and some personal factors. Nevertheless, the study included effective and constructive tools for those business sectors that aspire to thrive in this technology world. Thus, this research mainly concentrates on how to minimize the input and maximize the output.

3. Literature Review

For the better understanding of the research, literature review has been categorized under specific topics. Firstly, defining knowledge management (KM) and how it would be understood in business domain. Later followed by ICT with knowledge management into a business world. Although knowledge management would be in an initial contextualization, it describes and define what it would mean in a business world. Likewise, next followed would describe precisely on the tools of ICT with knowledge and how it would bring positive impact in a business. ICT was and is seldom used in the business world in Bhutan. However, Pradhan has mentioned in his research that, the 'strategy towards GNH*' has recognized the benefits of ICT in every field (Pradhan, 2001).

3.1 Define Knowledge Management and its implementation in a business

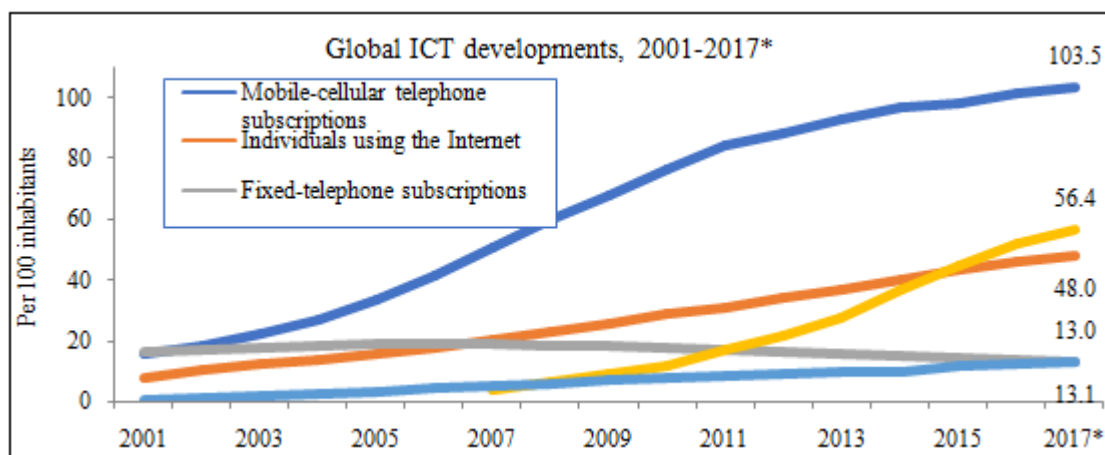
An ability to understand, implement and apply to a certain situation would be known as a *knowledge*. Leidner and her friend have mentioned in their research that, knowledge is the highest level of a 'hierarchy' where data would be translated into an information and the information into a decision (Fernandez & Leidner, 2015). Therefore, Nonaka has mentioned that knowledge was created by information

which could be 'controlled by the sender' (Nonaka, A Dynamic Theory of Organizational Knowledge Creation, 1994). Hence, being subjective, it could be shared and transferred through learning.

Knowledge management has not been described as a technology nor has it been described as an enabler. However, it has been used for a strategic framework in a business. Although it was neither a directive nor a business strategy, PMI (Project Management Institution) has stated that KM is essential to 'achieve success' in a business (Levin, 2010)(PMI, 2017). It could be described as a 'leveraging' of information and strategic innovation (Frappaolo, 2002)(Fernandez & Leidner, 2015). KW could be further divided into two for the betterment of any organization. Nonaka has mentioned Tacit Knowledge (TK) as to communicate directly and Explicit Knowledge (EK) as to transfer through verbal or non-verbal communication (Nonaka, A Dynamic Theory of Organizational Knowledge Creation, 1994). In other words, knowledge could be shared through socialization, experiences, and interaction. Thus, benefiting a business and enhancing it to 'accelerate' further (Frappaolo, 2002). KM, also known as a management of people, system, culture, and processes has KM focusing on a 'subtle yet profound' shift towards an advancement business, relying on the past experiences (Fernandez & Leidner, 2015). Hence, having knowledge (KM) has become a basic for a business to advance.

3.2 ICT with Knowledge Management (KM) in a business

The link between ICT and KM has been considered an accepted collaborative source that would bring improvements in a business. ICT with knowledge would bring further improvement and progress in a business such as reducing cost and increase in revenue, better customer relation, and also increasing in business performance (Saad, Rosenthal-Sabroux, Gargouri, & Saad, 2014). With a growth of ICTs, there has been rapid change of effective advancement in business. Avgerou and his friends have mentioned in their article on how knowledge and ICT has brought certain changes for example: increased effectiveness of the deliverables; competitive business environment; increased rate of productivity growth; and finally, but not limited to life condition improvements were certain changes (Avgerou, Hayes, & Rovere, 2016). In addition, several researchers have a common viewpoint that globalization has changed the growth of ICTs into a *knowledge-sharing* organization (Ishihara, 2017), (Lee & Kelkar, 2013), (Nonaka, A Dynamic Theory of Organizational Knowledge Creation, 1994), (Kelly & Souter, 2014), (Ritter & Hawamdeh, 2014). Thus, it is certain that ICT and knowledge would increase its productivity as well as outsourcing businesses.



Note: * Estimate

Source: ITU World Telecommunication /ICT Indicators database

Figure 2: Technological advancement in recent years.

(Source: ICT facts and Figures 2017)

According to the given figure (Figure 2), it clearly communicates the recent growth in technology. It also states the effectiveness of ICT in different fields apart from communication and storage. In other words, rapid change of business environment has contributed in a wide spread of ICTs as a tool for an effective advancement. Avgerou and his friends have mentioned in their article about how KM with ICT has brought certain changes. Increased effectiveness of the deliverables; competitive business environment; increased rate of productivity growth; and finally, but not limited to life condition improvements were certain changes (Avgerou, Hayes, & Rovere, 2016). In addition, several researchers have a common viewpoint that globalization has changed the growth of ICTs into a

knowledge-sharing organization (Ishihara, 2017), (Lee & Kelkar, 2013), (Nonaka, A Dynamic Theory of Organizational Knowledge Creation, 1994), (Kelly & Souter, 2014), (Ritter & Hawamdeh, 2014). Thus, it is certain that ICT and knowledge would increase its productivity as well as outsourcing businesses.

In addition, a recent 'vital' role of ICTs has proved ICTs as *not* only a tool for 'capturing data' and formatting but also as a *knowledge sharing* and *information handling* in a business resulting to an increase in productivity (Phang & Foong, 2010). Ritter and Hawamdeh(2014) as well as Hendriks (1999) stated that, ITCs has been a tool for administration, operational and management control (Hendriks, 1999)(Ritter & Hawamdeh, 2014). On the other

hand, Bhutan as a landlocked country has its own challenges, such as a least developed country and a failure to access to the outside markets (Tobgay & Wangmo, 2008). While ICTs has capabilities to combine explicit (EK) and tacit knowledge (TK) to bring an *enriched and collaborated decision-making* framework for a business, it would also guide to bring effective knowledge sharing in a business by bringing TK and EK shareholders together. Henceforth, external and internal knowledge management would be introduced to a business.

- a) External Matters – An organization’s relationship with the environment
- b) Internal Matters– members’ information, management and communication needs

To conclude, KM enables ICT to develop a strong requirement for a business management. Thus, improving business growth strategies and delivery services. Alvarez has also mentioned in his research that, an organization requires ICT knowledge that would search, sort and analyze information in its business management; to facilitate communication for IK and to develop and maintain a better relationship between the stakeholders, EK (Alvarez, 2015).

4. Findings

Even though numerous researchers state the advantages of ICTs in business management, some has highlighted few disadvantages (Jahkola, 2013). More justifiable facts about business growth with ICTs overcomes the minimal disadvantage of ICTS in business (Chew, Ilavarasan, & Levy, 2017). Thus, raises business performances more than what it used to be (Machikita, Tsuji, & Ueki, 2010).

Research Question and Hypotheses

During this research, I have explored and considered Bhutan as a fast developing country. I am interested in a fact that Bhutan could have business confidence similar to other developed countries. Thus, the following hypotheses has come up:

- 1) ICTs not only stores data, but it also helps an individual to share and distribute knowledge in a much easier way
- 2) Business sectors/industries involving ICTs with knowledge would bring an effective and efficient outcome leading to increase in sale as a whole.
- 3) ICT would bring better exposure and cost effective to a business firm.

5. Methodology

5.1 Data Collection

The research attempts to recognize the advantages and the key challenges for using ICTs and knowledge in a business. To conduct the research, few primary sources with numerous secondary sources were used, based on research proposal followed by a research paper. In other words, at first, gathered necessary information for a literature review and then the interpretation of research questions. The questions were asked to few business owners in Bhutan based on personal experiences and how it could bring effective changes in the business world. Information was gathered through social media interviews, researching and

reading journal articles. Since data collections through questionnaires/survey and interviewing were expensive, both qualitative and quantitative research was used to analyze different data.

5.2 Data Analysis

This research contains a collection of external evidence such as databases, publications and numerous internal evidence such as reports, journal articles and books. The research was analyzed using the triangulation technique (TT) focusing on common views and ideas from different researchers. Nonetheless, multivariate analysis of variance (MANOVA) statistics was used. The researcher was motivated to find out if ICTs would bring a big positive change in a business. the data would describe how some of the researchers have concluded about ICT, even though, many agree that it enables to build ‘virtual space for knowledge sharing’ (Alvarez, 2015). The result from the research suggests that there are few prominent concerns of managing ICTs in Bhutan.

6. Results

6.1 Is ICT an essential one

Every research state that recent development of technology has brought positive impacts to the organization. It has generated more effective and efficient project execution in the organizations. The research argues how ICT provides several new insights for the knowledge management into a business. However, it is researched that for a developed country it could be very slow. Ikediashi and friends has described the practice and implementation of ICT in a business sector in Nigeria as ‘sluggish’ and a slow one (Ikediashi & Ogwueleka, 2016). On the other hand, comparing with the traditional paper-based information, enhancement of ICTs in a business has increased business efficiencies and effectiveness (Ishihara, 2017). Hence, it is argued that KM would be the best exploited when managed with ICTs for a ‘competitive advantage’ (Phang & Foong, 2010) (Ikediashi & Ogwueleka, 2016) (Ikediashi & Ogwueleka, 2016).

6.2 Are there any means of using ICTs as a tool?

Although ICT exists in an organization, a wide spread of ‘intra’-net’ would bring different forms of knowledge to exchange. Thus, making a team feel more committed towards the organizational goals (Acosta, Giudice, & Scuotto, 2018). However, there is no evidence that ICTs has been a success in Bhutan so far. Hence, ICTs *could be* considered a tool to develop knowledge training or a resource to facilitate effective communication and interaction amongst a team. Thus, bringing positive outcome.

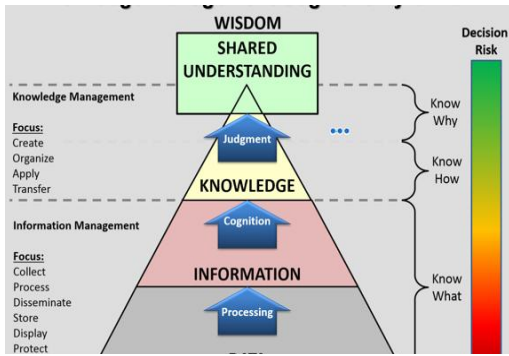


Figure 3: Knowledge with ICTs know-what, know-how and know-who
(Source: (Fernandez & Leidner, 2015))

6.3 What would be the conclusion?

In a nutshell, ICTs play a vital role, of course (a picture above depicts how ICTs with knowledge minimizes the risk and brings positive outcomes). Thus, an evolutionary of ICTs with knowledge framework should be proposed in a business world which would, obliterate the lack of a standardized framework for managing KM through ICT (Kamara, Augenbroe, Anumba, & Carrillo, 2001).

Literature Article	
1 Acosta, Pedro Soto; Giudice, Manlio Del; Scuotto, Veronica (2018)	
Positive	1. facilitate interaction between employees to execute the innovation process with users and business partners from remote places 2. digital platforms are prone to deliver innovative ideas. 3. supports the knowledge exchange process
Neagitive	1. Unnecessary cost 2. Lack of trained and knowledgeable people
2 Ishihara, Yoichiro (2017)	
Positive	1. Different types of knowledge (TK&EK) contributes in positive aspects of Cis. 2. KM adds to project success by fixing the issues 3. KM brings innovation, effective business performance and better outcome 4. Sharing of knowledge through ICTs would bring better interpersonal relationship with the team and the customers
Negative	1. Many companies are not convinced with KM nor ICTs in construction industries 2. Letting people share their experiences could be challenging unless they are willing to

Figure 4: The positive and negative of ICTs with KM or as an individual. (Source: Sonam Wangmo)

In addition to above optimistic about ICTs in a business world, Global Information Technology Report (2015) stated that ICTs has brought positive effect towards many industries, including poverty ‘alleviation’ (Pepper & Garrity, 2015). The figure (Fig.4) below explains the details. Statista (2018) has a similar result in their research. Figure 5 explains how ICTs has generated revenues, not only for the business environment but globally (Statista, 2015). On the

other hand, many employed workers are seniors and has minimized ICTs’ support. Therefore, a framework should be required for the business industries, irrespective of an age gap, location, company size or number of workers (Lee Chei Sian; Rujuta S Kelkar, 2013). Consequently, encouraging a use of ICTs.

	Year	Revenue in Billion euros
1	2005	2,307
2	2006	2,455
3	2007	2,614
4	2008	2,723
5	2009	2,813
6	2010	2,969
7	2011	3,083
8	2012	3,169
9	2013	3,555
10	2014	3,686
11	2015	3,829
Estimated	12 2016	3,978
Estimated	13 2019	4,460

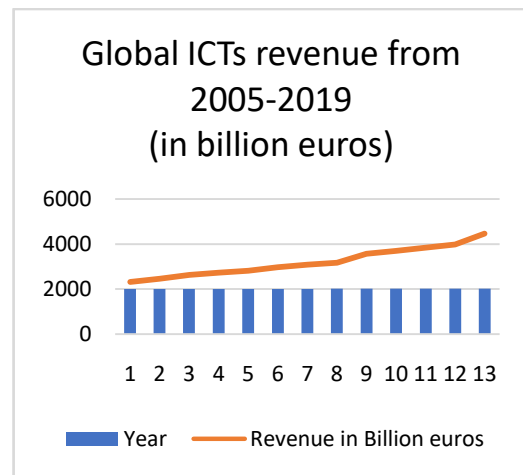


Figure 5 (a) and (b): Global ICT revenue from 2005-2019 (in billion euros)
(Source: Statista 2015)

7. Conclusion

Report addresses advantages of using ICTs in business world that would smooth the outcome, better scope, always on budget and would be assuring standard quality. In other words, ICTs with additional knowledge would address business issues such as time, low project(outcome) quality, budget overrun or reinventing the wheel. Although certain issues were overlooked, such as geographical locations of a business, an implementation of ICT with knowledge of course, would bring efficient and effective business outcome. Moreover, ICTs would accelerate business input as well as output. Thus, thriving in business world.

8. Recommendations

- 1) In future, opinion from different locations (diversity) is required. Thus, questionnaires could be used for random business owners and seek their opinions which could be compared accordingly.
- 2) Persistence framework that would accord with a desired industries goals by reaching out to many through interviews and surveys.
- 3) Involvement of few firms and potential business sectors who could be an influential one.

References

- [1] Acosta, P. S., Giudice, M. D., & Scuotto, V. (2018). Emerging issues on business innovation ecosystems: the role of information and communication technologies (ICTs) for knowledge management (KM) and innovation within and among enterprises. *Baltic Journal of Management*, 13(3), 298-302.
- [2] Alvarez, M. T. (2015). Analysis of the Effects of ICTs in knowledge management and Innovation: The case of Zara Group. *Computers in Human Behaviour*, 51(1), 994-1002.
- [3] Anumba, C. J., Egbu, C., & Carrillo, P. (2008). *Knowledge Management in Construction* (1 ed.). (C. E. Chimay J. Anumba, Ed.) John Wiley & Sons, Incorporated.
- [4] Avgerou, c., Hayes, N., & Rovere, R. L. (2016, December). *Journal of Information Technology*, 31(4).
- [5] CBS. (2018, July). Retrieved from Construction Development Board: <http://www.cdb.gov.bt/web/aboutus>
- [6] Chei, S. L., & Rujuta, S. K. (2013). ICT and Knowledge Management: Perspectives from the SECI model. *Journal of Science*, 31(2), 226-243.
- [7] Chew, H. E., Ilavarasan, P. V., & Levy, M. R. (2017, Dec 5). The Economic Impact of Information and Communication Technologies (ICTs) on Microenterprises in the Context of Development. *Journal of Science*, 44(1), 1-19.
- [8] Construction Development Board. (2018). *About us*. Retrieved from <http://www.cdb.gov.bt/web/aboutus>
- [9] Dave, B., & Koskela, L. (2009). Collaborative knowledge management A construction case study. *Salford Centre for Research and Innovation*.
- [10] Davenport, T., & Prusak, L. (1998, Sep). Working knowledge. *Journal of Trade*, 15(9), 10.
- [11] Dorji, K., & Bonaventura, H. (2006). Safety Management Proactices in the Bhutanese CInstruction Industry. *JOurnal of Construction in Developing Countries*, 11(2).
- [12] Dr. Islam, N. (2016). The Use of Information and Communication Technology (ICT) and Business Management: Contemporary Issues and Challenges. *SSRN Electronic Journal*(DOI: 10.2139/ssrn.2856262).
- [13] Egbu, C. O. (2001). Knowledge Management and Human Resource Management (HRM): The Role of the Project Manager. *JOurnla of Construction and Project Management*, 6-7.
- [14] Fernandez, I. B., & Leidner, D. (2015). *Knowledge Management- An Evolutionary View*. London and NY: Routledge 2 Park Square, Milton Park Abingdon, Oxon NY.
- [15] Frappaolo, C. (2002). Knowledge Management. 26-125.
- [16] Guion, L. A., Diehl, D. C., & McDonald, D. (2011). Triangulation: Establishing the validity of qualitative studies. *Research journal*.
- [17] Hendriks, P. (1999). Why Share Knowledge? The influence of ICT on the Motivation for KNowledge sharing. *Knowledge and Process Management*, 6(2), 91-100.
- [18] Hunter, R. J. (2001). Managing Knowledge workers. *Atlantic Journal of Business*, 37(4), 219-221.
- [19] Ikediashi, D. I., & Ogwueleka, A. C. (2016). Assessing the use of ICT systems and their impact on construction project performance in the Nigerian construction industry. *Journal of Engineering, Design and Technology*, 14(2), 252-276.
- [20] Ishihara, Y. (2017, August 15). *How can digital technology transform lives and improve opportunities in Bhutan?* Retrieved from The World Bank- IBRD-IDA: <http://blogs.worldbank.org/endpovertyinsouthasia/how-can-digital-technology-transform-lives-and-improve-opportunities-bhutan>
- [21] Ivona, O. (n.d.). The Importance of Tacit knowledge within the organization. *Faculty of Business Administration*, 414-416.
- [22] Jahkola, M. V. (2013). Pros and Cons of Various ICT Tools in Global Collaboration – A Cross-Case Study. *International Conference on HIMI*, 391-400.
- [23] Kamara, J., Augenbroe, G., Anumba, C., & Carrillo, P. (2001). Knowledge Management in Architectual, Engineering and Constructions INdustry. *Journal of Construction Innocvation*, 1(2), 53-67.
- [24] Kelly, T., & Souter, D. (2014). *Ther role of ICT in Postconflict reconstruction*. Washington DC: The World Bank.
- [25] Lee Chei Sian; Rujuta S Kelkar. (2013). ICT and knowledge management: perspectives from the SECI model. *School of Communication and Information*, 31(2), 226-243.
- [26] Lee, C. S., & Kelkar, R. S. (2013). ICT and knowledge management: perspectives from the SECI model. *The Electronic Library*, 31(2), 226-243.
- [27] Levin, G. (2010). KNowledge management success equals project management success. *Project Management Institute*.
- [28] Machikita, T., Tsuji, M., & Ueki, Y. (2010). How ICTs

- Raise Manufacturing Performance: Firm-level Evidence in Southeast Asia. *ERIA (Economic Research Institute for ASEAN)*.
- [29] Malhotra, Y. (2005). Integrating knowledge management technologies in organizational business processes: getting real time enterprises to deliver real business performance. *Journal of Knowledge Management*, 9(1), 7-28.
- [30] Maliszewska, J. P. (2017). Managing Knowledge Workers. *Journal of Business Management*.
- [31] McHaney, R. (2011). The new digital shoreline: How web 2.0 and millennials are revolutionizing. *Project Journal*.
- [32] MoLHR. (2010). *Third United Nations Conference on the Least Developed Countries*. Retrieved from <https://www.molhr.gov.bt/molhr/wp-content/uploads/2017/07/ro.pdf>
- [33] MoWHS. (2016). *Construction Industry Policy of Bhutan*. Bhutan: Ministry of Works and Human Settlement.
- [34] Nonaka, I. (1994). A Dynamic Theory of Organizational Knowledge Creation. *Organizational science*, 5(1), 14-38.
- [35] Nonaka, I. (1994, February). A Dynamic Theory of Organizational Knowledge Creation. *Journal of Organization Science*, 5(1).
- [36] Pepper, R., & Garrity, J. (2015). *ICTs, Income Inequality, and Ensuring Inclusive Growth*. World Economic Forum.
- [37] Phang, M. M., & Foong, S. Y. (2010). ICTs and KM Shring: The case of professional Accountants in Malaysia. *World journal of science, technology and sustainable development*, 7(1), 21-35.
- [38] Phang, M. M., & Foong, S. Y. (2010). InformatIon CommuniCatIon teChnologIes (ICTs) and knowledge sharIng: the Case of professional accountants In MalaysIa. *World Journal of Science, Technology and Sustainable Development*, 7(1), 21-35.
- [39] PMI. (2017). *A Guide to the Project Management Body of Knowledge (PMBOK @GUiDe)* (Sixth ed.).
- [40] Pradhan, G. (2001). Study of the development of ICT in the Kingdom of Bhutan. *Journal of Curriculum*, 1(3).
- [41] Preece, C., Moodley, K., & Hyde, J. (2000). KNOWLEDGE MANAGEMENT STRATEGIES TO IMPROVE CONSTRUCTION BUSINESS DEVELOPMENT PROCESSES - A PRELIMINARY CASE STUDY. *Construction Management Group*, 1, 325-334.
- [42] RGoB. (2001). *Third United Nations Conference on the Least Developed Countries*. Thimphu: Ministry of Finance .
- [43] Ritter, W., & Hawamdeh, S. (2014). *Managing Knowledge for global and collaborative innovations* (Vol. 8). (S. Chu, Ed.) Singapore: World Scientific Publishing Co. Pic. Ltd.
- [44] Saad, I., Rosenthal-Sabroux, C., Gargouri, F., & Saad, I. S. (2014). *Information Systems for Knowledge Management*. (e. a. Inès Saad, Ed.) ProQuest Ebook Central: Wiley.
- [45] Schwartz, D. G. (2005). *Encyclopedia of Knowledge Management*. ProQuest Ebook Centra: Idea Group, Inc.
- [46] Scully, J. W., Buttigieg, S. C., Fullard, A., Shaw, D., & Gregson, M. (2013, May 20). The role of SHRM in turning tacit knowledge into explicit knowledge: a cross-national study of the UK and Malta. *The international Journal of HUman Resource Management*, 24(12), 2299-2320.
- [47] Smith, E. A. (2013). The role of tacit and explicit knowledge in the workplace. *Journal of KNowledge Management*, 5(4), 311-321.
- [48] Subashini, R., Rita, S., & Vivek, M. (2012). The Role of ICTs in Knowledge Management (KM) for Organizational Effectiveness. *Communication in computer and Information Science*, 270, 542-549.
- [49] Tobgay, S., & Wangmo, K. (2008). Can ICT (Internet) overcome the natural geographical barriers of Bhutan in developing the nation? *Internation Journal of Education and Development using ICT*, 4(4), 148-158.
- [50] UNICEF. (2016). Six methods of data collection and analysis. In U. Save the children, *Monitoring, Evaluation, Accountability and Learning*. Unicef.
- [51] Yoichiro Ishihara. (2017, August 15). *The World Bank*. Retrieved from How can digital technology transform lives and improve opportunities in Bhutan?: <http://blogs.worldbank.org/endpovertyinsouthasia/how-can-digital-technology-transform-lives-and-improve-opportunities-bhutan>
- [52] Zhang, Y. (2005, January). age, gender, and Internet attitudes among employees in the business world. *Computers in Human Behavior*, 21(1), 1-10.

Author Profile

Both born in a petite country; yet advancing rapidly. It is a destitute country from an economic point of view. However, wealthy in natural resources. ICTs has been introduced by the time we could remember. Nevertheless, Bhutanese has failed to make use of it tomore advantageous way. Opening doors tothe outside world has led its advancement towards better development in business world. Therefore, ICT is one method that has come into existence in many different ways into the industries letting it towards a success.

On the other hand, although there was such into the society, introduction of such technology in business industries were behind. In fact, it was 'not to be seen at all'. When visited countries, major gaps in Bhutan could be comprehended. ICTs in business management would be one of the major issues. Thus, wanted to conclude that ICTs in a business world would be more advantages than disadvantages. In other words, business industries in Bhutan would flourish with ICTs.