

EMPOWERING RURAL ENTREPRENEUR WITH DIGITAL  
ENTREPRENEURSHIP, A STUDY FOR COMMUNITY OF BEAUFORT

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**EMPOWERING RURAL ENTREPRENEUR WITH DIGITAL  
ENTREPRENEURSHIP, A STUDY FOR COMMUNITY OF BEAUFORT**

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requirements for the award of the degree of  
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## **DEDICATION**

This thesis is dedicated to my children Balqis, Maryam and Adani, who have seen my struggle and the reason for me to keep going. I hope I inspired them to never give up and trust Allah in the process.

## **ACKNOWLEDGEMENT**

The first praise is due to Allah Almighty, on whom we ultimately depend for all the strength and guidance during the journey.

My sincere gratitude goes to my thesis advisor Prof. Dr Nur Naha for encouragement, guidance, criticism and friendship. I would also like to thank Azman Hashim International Business School, University Technology Malaysia for providing me with the academic foundation for this study.

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May Allah grant everyone success and great achievements no matter what path you choose to take in the future.

## **ABSTRACT**

Pusat Ekonomi Digital Malaysia(PEDi), formerly known as Pusat Internet Komuniti, a project by MCMC acts as a catalyst for local entrepreneur development to boost and contribute to the development of the digital economy in Malaysia. The impact of the pandemic Covid-19 is enormous on the global economy. The use of technology has grown, and digitalization has impacted nearly all aspects and levels of life. The urban people may adapt much quicker to this change, but rural people may need help to adjust. Previous literature has revealed a significant relationship between rural entrepreneurship and ICT knowledge among the instruments to eliminate poverty. This study aims to asses and improve the ICT acceptance level among the community in Beaufort through digital entrepreneurship. This action research targets the community in the district of Beaufort where MCMC has 6 Pusat Ekonomi Digital Keluarga Malaysia. This study's data will be collected through a mixed method. The data sources will also be from literature reviews, documents, expert opinions, and trends observation on successful entrepreneurship development for the community. The outcome of this study is an intervention program to improve the ICT acceptance level through digital entrepreneurship in the rural community of Beaufort.

## ABSTRAK

Pusat Ekonomi Digital Keluarga Malaysia / Pusat Internet Komuniti adalah projek oleh SKMM yang bertindak sebagai pemangkin pembangunan usahawan tempatan dengan harapan ia akan melonjakkan dan menyumbang kepada pembangunan ekonomi digital di Malaysia. Kesan pandemik Covid-19 sangat besar terhadap ekonomi global. Penggunaan teknologi telah berkembang dan pendigitalan telah memberi kesan kepada hampir semua aspek dan semua peringkat kehidupan. Penduduk bandar mungkin lebih cepat menyesuaikan diri dengan perubahan ini, tetapi mereka yang berada di luar bandar mungkin memerlukan bantuan untuk menyesuaikan diri. Literatur terdahulu telah menemui dan mendedahkan hubungan yang signifikan antara keusahawanan desa dan pengetahuan dalam ICT adalah antara instrumen untuk menghapuskan kemiskinan. Kajian ini adalah untuk menilai dan meningkatkan tahap penerimaan ICT dalam kalangan masyarakat di Beaufort melalui keusahawanan digital. Kajian tindakan ini mensasarkan masyarakat di daerah Beaufort yang mana SKMM mempunyai 6 Pusat Komuniti Internet. Data kajian ini akan dikumpul melalui kaedah campuran. Sumber data juga adalah daripada ulasan literatur, dokumen, pendapat pakar dan pemerhatian arah aliran mengenai kejayaan pembangunan keusahawanan dalam komuniti. Hasil kajian ini merupakan program intervensi untuk meningkatkan tahap penerimaan ICT melalui keusahawanan digital dalam komuniti luar bandar Beaufort.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

This section will cover the background of the study and the problem statement. The chapter also explained the research questions, objectives, and scope of the study. Finally, to include theoretically and practically of my thesis significance of the research and organization of the thesis.

Pusat Ekonomi Digital Keluarga Malaysia or PEDI is an initiative under the Malaysian Communications and Multimedia Commission (MCMC) to offer Internet services to underserved areas and to inculcate computer-based skills and know-how for community development and knowledge growth. There are 115 Pusat Ekonomi Digital Keluarga Malaysia (PEDI) in Sabah to serve the rural community strategically located in 25 districts all over Sabah.

MCMC has since carried out several other projects that concentrate on entrepreneurship, including promoting small goods to a broader market. In Sept 2020, MCMC announced its commitment to strengthening Pusat Ekonomi Digital Keluarga Malaysia as the transformation agent to improve its surrounding communities' socio-economic and livelihood. Pusat Ekonomi Digital Keluarga Malaysia will act as the catalyst for local entrepreneur developments to boost Malaysia's digital economy and ensure that no one is left behind, especially those living in the rural part of Malaysia.

## **1.2 Problem Background**

According to the Statistic Department of Malaysia, rural areas are defined as areas with a population of fewer than 10,000 people having agriculture and natural resources in which its population is either clustered, linear, or scattered. According to The states of Kedah, Perlis, Terengganu, Kelantan, Pahang, Sabah, and Sarawak are among the states in Malaysia that have more than 50.0percent of their people live in rural areas (Shaari, 2001).

Located in the Interior Division of Sabah, Malaysia, the town of Beaufort is the administrative centre for the Beaufort District. It was named after Leicester Paul Beaufort, a previous British Governor. In 2010, its population was projected to be around 12,742. It is located about 90 km south of Kota Kinabalu and approximately 167 km north of Long Pasia (one of the famous tourist attractions in the Interior Division). It contains shophouses elevated above the roadways to escape the Padas River's frequent flooding.

Beaufort is predominantly populated by Bisaya, Brunei Malays, Kadazan-Dusuns, Lun Bawang/ Lun Dayeh, Muruts, and Chinese (mainly Hakkas). The predominant ethnic group is Bisaya, and the people is dispersed across the town.

Beaufort has in total 6 Pusat Ekonomi Digital Keluarga Malaysia located in scattered locations all over Beaufort. Apart from providing ICT services and internet access to the community, the Pusat Ekonomi Digital Keluarga Malaysia also offers various ICT and entrepreneur programs as part of their activities. PEDis' activities have been mainly towards ICT and Internet safety awareness in the past years, such as "Klik Dengan Bijak". Entrepreneurship programs are also offered to the community as part of ICT enablement program. MCMC recently announced in September 2020 that moving forward; the Pusat Ekonomi Digital Keluarga Malaysia will focus and play an essential role in developing the socio-economy of the local people through entrepreneurship. The objective of this vision is to help the community to grow, increase community income and also to create job opportunities.

According to recent data collected in August 2020, Pusat Ekonomi Digital Keluarga Malaysia in Beaufort has 4,136 users in total, which is among the top 10 active PEDi in Sabah

State/ District	Number of PIK	Sum of Member	Sum of Non-Member	Total Sum of User
KINABATANGAN	8	6,269	6,396	12,665
TAWAU	10	6,092	658	6,750
BELURAN	8	5,888	635	6,523
KUNAK	5	5,539	71	5,610
KENINGAU	6	5,357	230	5,587
PAPAR	6	4,822	568	5,390
PITAS	5	3,281	2,108	5,389
SANDAKAN	8	4,779	570	5,349
KOTA BELUD	6	3,334	1,025	4,359
BEAUFORT	6	3,343	793	4,136

*Figure 1: Top 10 PEDi with highest no of users for PEDi Sabah, data August 2020*

### 1.2.1 Understanding the Problematic Situation

To understand the problem and situation that led to the formulation of the research questions, the researcher performed SWOT analysis and came up with an Ishikawa model.

### 1.2.2 SWOT Analysis

The PEDi existence was seen as an essential platform to help community development. Therefore, since its inception, PEDi has provided various training and courses in information communication and technology (ICT) and entrepreneur development courses.

The SWOT analysis below is to identify the strengths, weaknesses, opportunities and threat that exists for PEDi to focus and to develop rural entrepreneurship among the community of Beaufort.

<p><b>Strengths</b></p> <p>Managers or Assistant Managers have good education level – degree and diploma level.</p> <p>All the PEDI in Beaufort have been in operation for at least 3 years.</p> <p>PEDI are the only government internet centers located in Beaufort. There are no PEDI Desa or Pusat Komuniti Desa located in Beaufort.</p>	<p><b>Weaknesses</b></p> <p>Non related to IT or business background, such as International Relation, Administration, Policy Management, Bio-Informatics and Literature Studies</p>
<p><b>Opportunities</b></p> <p>The community appreciate the services and program provided by PEDI</p> <p>Community rely on PEDI to get good reliable Internet services and training.</p> <p>PEDI Beaufort received daily visits from the community, and members are from various age groups.</p>	<p><b>Threats</b></p> <p>Program are often one-off and have no continuity causing unable to measure the impact</p> <p>The community depend too much on the PEDI manager to help them to do various ICT related tasks</p> <p>Lack of initiative to learn ICT on their own from the community</p>

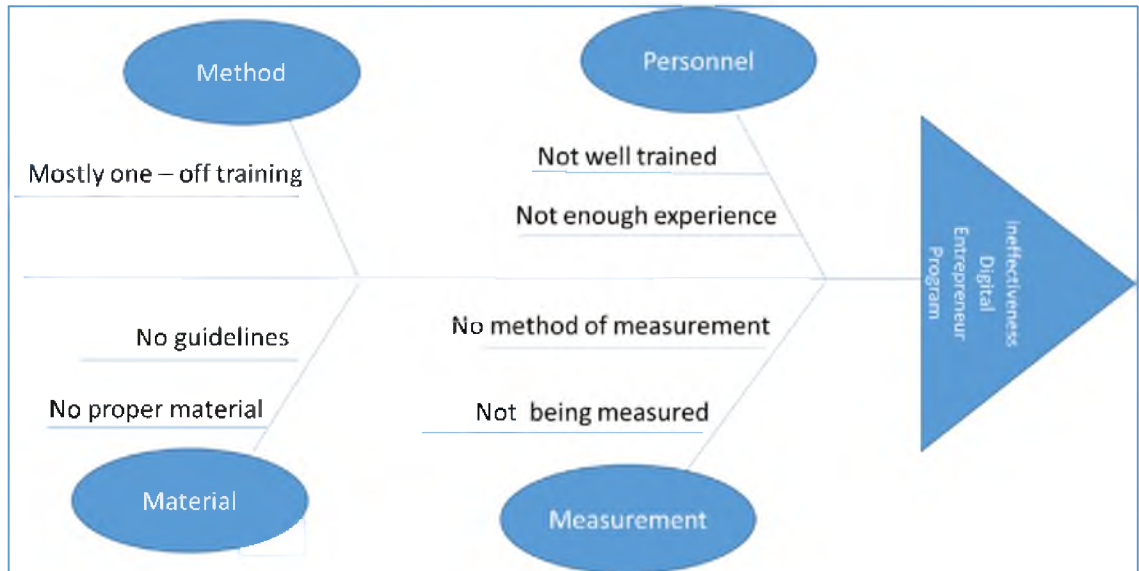
### 1.2.3 Ishikawa Model

As mentioned in Chapter 1, two problem statements were identified in this research area:

- *The level of ICT acceptance in the community among the rural entrepreneur is unknown. No previous study was done on ICT*

*literacy level or the acceptance level for the rural entrepreneur to use the Internet to grow their business.*

- *Unavailability of adequate training and according to the community's need can produce successful entrepreneurs among the community of Beaufort.*



To understand the problem better, an Ishikawa model was developed to understand the causes and effects of the event. Ishikawa diagrams are graphical representations of causes and effects. Ishikawa model allows potential causes of a problem to be broken down into basic elements and direct solutions to a problem (Suárez-Barraza & Rodríguez-González, 2019). Such diagrams are graphical representations of causes of specific effects under investigation. The development of the Ishikawa model is based on the initial findings that was done from the preliminary data collected from the PEDi.

*Figure 2: Ishikawa Model*

### **1.3 Problem Statement and Research Importance**

One of MCMC's strategic objectives set for 2021 in MCMC is to transform Pusat Ekonomi Digital Keluarga Malaysia by fostering the advancement of the socio-

economic status of the local communities. One way to achieve this is by PEDi putting extra focus on entrepreneur training and programs primarily related to digital technology usage. However, since this is a new objective, whether the PEDi is ready to train the community. The two main concerns are as follows:

- ***Unavailability of data on ICT literacy level or acceptance of the entrepreneurs in the rural community to adopt ICT technology as a tool for marketing and digitizing their business***

Information provided by telecentres must be demand-driven, emphasising two main aspects of having access to local knowledge and content relevant to the population's needs (Samah et al., 2013). Therefore, understanding their level of ICT literacy and awareness will benefit the PEDi in how they performed the training and content selection based on the community's needs.

- ***The unavailability of training content and adequate knowledge on digital entrepreneur topics to train the community.***

On average, Pusat Ekonomi Digital Keluarga Malaysia conducted about 1 full day of entrepreneurial program per month from 2018 to 2020 for local entrepreneurs or those interested in becoming entrepreneurs. Some of the programs collaborate with other agencies such as FAMA, Kemas or MDeC. Others are initiative programs by PEDi on the various topics picked or requested by the community, such as photography class. A program or module with a specific objective will help boost their confidence to train the community and ensure that they are competent in the topic as the subject matter expert.

#### **1.4 Research Objectives and Research Question**

The purpose of this study is to answer and address the following research questions as well as the corresponding research objectives:

***Research Question 1***

*What are the root causes of rural entrepreneur to be less effective in their involvement in digital entrepreneurship?*

***Research Objective 1***

*To determine the root causes of rural entrepreneur to be less effective digital*

***Research Question 2***

*How can we enhance ICT acceptance level among rural entrepreneurs?*

***Research Objective 2***

*To determine factors the able enhance ICT acceptance level for rural entrepreneurs that lead to increase in profit/sales.*

***Research Question 3***

*What are the best interventions to improve ICT acceptance for rural entrepreneurs in becoming digital entrepreneurs?*

***Research Objective 3***

*To determine the best interventions to improve ICT acceptance amongst rural entrepreneurs to become digital entrepreneurs*

**1.5 Research Scope**

This research aims to perform action research to empower entrepreneurs in the rural community with digital knowledge through the adoption of e-commerce as a tool to increase their ICT literacy.

There are several limitations set:

1. This study only limited to the community in the Beaufort district.

2. This study involves only Pusat Ekonomi Digital Keluarga Malaysia in Beaufort. In total there are 6 locations of Pusat Ekonomi Digital Keluarga Malaysia as below:

- *PEDi Kg. Bambangan*
- *PEDi Kg Kabidang*
- *PEDi Kg Lawa Kabajang*
- *PEDi Pekan Weston*
- *PEDi Teluk Weston*
- *PEDi Pekan Membakut*

## **1.6 Researchers Role and Etiquette**

The researcher must understand their role and responsibility in conducting the research entirely. It is also the responsibility of the researcher to follow certain research ethics to produce a quality research

### **1.6.1 Researchers Role**

- a. The researcher is responsible for completing the project in compliance with the agreed deadlines and for the prompt reporting of the result.
- b. The researcher shall be responsible for the work, discipline, and all other matters to ensure the smooth progress of the research.
- c. The researcher will need to conduct the study until it is completed
- d. To present and share the study if required by the University

### **1.6.2 Researcher Etiquette**

In general, research ethics refers to a set of rules for an individual researcher needs to follow in conducting their research studies. Thus, the broad definition of certain ethical principles are given below:

- a. The report shall be written purely by the researcher. All information, results and methods must be accurately documented by the researcher without fabricating, falsifying or misrepresentation of data.



- b. Researcher must maintain high integrity, avoiding any bias while conducting all research activities, including methods, observations, analysis, reviews and other aspects of the study.
- c. The researcher must prevent careless mistakes and negligence; assess the study works carefully and objectively.

## **1.7 Significance of the Research**

This research is a significant and essential area of study for Beaufort community or Sabah and on a larger scale. Many countries other than Malaysia also have a considerable gap in ICT literacy, be it in Malaysia or other countries worldwide include in Asean countries like Indonesia and the Philippines. In October 2020, Philippine Statistics Authority launched its 31st National Statistic Month with *“Bridging Digital Divides: Making Information Available to All”*. This topic acknowledges the importance of digitization while also emphasizing the need to alleviate socioeconomic inequality regarding ICT access and use.

### **1.7.1 Significance to Theory**

According to Stoiciu (2011), there are three importance of telecentre existence and should provide the following for a target group of low-income populations:

- Access to new technologies;
- Access to applications and services appreciated by the target group;
- Services that directly help the economy, society, or culture, i.e. that improve living circumstances.

On top of this, the operation of a telecentre should also be sustainable and replicable. Thus this research is based on these three importance mentioned. The study provides the rural entrepreneur with the right technological tools crucial for their business development towards digital entrepreneurship. It is impactful that by doing

this research and implementing the intervention, it is expected to make a difference in the improvement to their socio-economic situations in the long run.

### **1.7.2 Significance to Practice**

Because of this pandemic, our movements are being restricted. Most people can no longer live everyday life, such as we are unable to attend school or work, attend lessons, and even earn a livelihood become extra challenging. Because of that, it is more important than ever before for us to harness modernization through digitalization to fulfil the increasing needs for sustaining and making a living. Because of the existing digital gap in Malaysia's rural and urban communities, the effort to assist the rural communities in embracing digitization needs to be doubled if not tripled. MCMC, as a government organization, needs to play this very important role to ensure that the rural community are supported in their needs to develop themselves through digital means.

## **1.8 Organization Report and Definition of Terms**

This section will describe the report organization and the terms that are used in this document.

### **1.8.1 Organization Report**

The chapter division are as follow:

- **Chapter 1** will cover the introduction which provides the introduction of the research, problem background, problem statements, research question, research scopes which includes the limitations and overall conclusion for chapter 1.
- **Chapter 2** will cover about literature review and it will explain the reviews, previous researches and related studies as well as the proposed intervention.
- **Chapter 3** it will discuss about methodology used when conducting the action research.

- **Chapter 4** it will discuss data analysis of the study.
- **Chapter 5** it will discuss data analysis of the cycle one reflection and conclusion.

### 1.8.2 Definition of Terms

The terms used in this documents are mostly general. However, there are a few terms listed below which are of specific used or are more commonly understood by people in MCMC.

*i. Pusat Ekonomi Digital Keluarga Malaysia (PEDI)*

Pusat Ekonomi Digital Keluarga Malaysia, or Community Internet Centre, is a Malaysian Communications and Multimedia Commission (MCMC) project aimed at providing Internet access to underserved regions and instilling computer-related skills and knowledge, which have become an important asset for everyone in today's world. At the moment, there are now 870 Internet centers located around the country. The telecentres are owned and awarded to service provider under the Universal Service Provisioning (USP) fund project. In Sabah there are only 3 service providers for the PEDI which are Celcom, Telekom Malaysia and Digi. For this project since it will be in Beaufort, all 6 PEDIs are owned by Celcom.

*ii. PEDI Manager*

PEDI Manager refers to the person who is responsible to manage the PEDI overall operation. This includes the day-to-day operation of the center, provides training and Internet related services. On top of this PEDI Manager is responsible in taking care of the assets of PEDI such as the computers, printers, tv and servers. PEDI Manager is assisted by 1 PEDI Assistant Manager, who works together in managing the center. They are paid a fixed monthly salary by the service provider that they were employed by.

iii. Technology Partner

Technology Partner is a local company that was engaged by service provider to oversees the operation of their PEDi. For example, in Sabah, PEDi owned by Celcom will be managed by two technology partner which are Nusuara and Nera. PEDi DiGi is managed by Sprintz Design while for Telekom Malaysia, their PEDi is managed by MSD Sdn Bhd.

## **1.9 Conclusion**

In conclusion, this is necessary research because it will help the researcher identify the community's gap towards becoming a digital entrepreneur and how can we improve the ICT acceptance level in the rural community. This study covers three significant activities – problem finding and identification, training as part of the intervention, and reflection of the study. This research assumed that ICT acceptance level would increase when entrepreneurs become more involved in digital entrepreneurship. At the same time, the community will be able to increase their income through digital entrepreneur activities.

## REFERENCES

- Anderson, D., Tyler, P., & McCallion, T. (2005). Developing the rural dimension of business-support policy.
- Bailey, A., & Ngwenyama, O. (2013). Toward entrepreneurial behaviour in underserved communities: An ethnographic decision tree model of telecentre usage. *Information Technology for Development* (ahead-of-print), 1-19.
- Bhatia, M. (5 September, 2018). *Your Guide to Qualitative and Quantitative Data Analysis Methods*. Retrieved from Humans of Data: <https://humansofdata.atlan.com/2018/09/qualitative-quantitative-data-analysis-methods>
- Biesta, G. (2010). Pragmatism and the philosophical foundations of mixed methods research. A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods research for the social & behavioral sciences* (2nd ed. pp. 95-118). Thousand Oaks, CA: SAGE.
- Botha, M., Van der Merwe, M., Bester, A., & Albertyn, R. (2010). Entrepreneurial skill development: Participatory action research approach in a rural community. *Journal of Family Ecology and Consumer Sciences /Tydskrif Vir Gesinsekologie En Verbruikerswetenskappe*, 35(1), 9–16. <https://doi.org/10.4314/jfec.v35i1.52916>
- Davidson, E., Vaast, E., 2010. Digital entrepreneurship and its sociomaterial enactment. In *IEEE System Sciences (HICSS)*, 43rd Hawaii International Conference. pp. 1–10
- Dewey, J. (2008). How we think. In J. Boydston (Ed.), *The middle works of John Dewey, 1899-1924* (Vol. 11, pp. 105-353). Carbondale: Southern Illinois University Press. (Original work published 1910a)
- Elia, G., Margherita, A., & Passiante, G. (2020). Digital entrepreneurship ecosystem: How digital technologies and collective intelligence are reshaping the entrepreneurial process. *Technological Forecasting and Social Change*, 150(January 2019), 119791. <https://doi.org/10.1016/j.techfore.2019.119791>

*Environment and Planning C: Government & Policy*, 23(4), 519–536.  
<http://dx.doi.org/10.1068/c44m>

Fink, Arlene. 2014) *Conducting Research Literature Reviews: From the Internet to Paper*. Fourth edition. Thousand Oaks, CA: SAGE

Gogoi, N. N., & Saikia, N. (2020). ICT for Rural Development : The Role of Telecentres in Enhancing Livelihood in India. *Adalya Journal*, 9(1), 292–297.

Goldstein, B. L., Ick, M., Ratang, W., Hutajulu, H., & Blesia, J. U. (2016). Using the Action Research Process to Design Entrepreneurship Education at Cenderawasih University. *Procedia - Social and Behavioral Sciences*, 228(June), 462–469. <https://doi.org/10.1016/j.sbspro.2016.07.071>

Ibrahim, H., Yusop, N. I., Dahalin, Z. M., Abd Ghani, N. F., Yasin, A., & Kasiran, M. K. (2010). Strategies for Information Communication and Technology (ICT) Adoption in Rural Areas. *Proceedings of Knowledge Management 5Th International Conference 2010*, 7–13.

Ismail, M., & Abdul Wahat, N. (2008). Action research: a strategy in community education. *Journal of Global Business Management*, 4(1), 224–231.

Jaganathan, M., Ahmad, S., Ishak, K. A., Mohd Nafi, S. N., & Uthamaputhran, L. (2018). Determinants for ICT adoption and problems: Evidence from rural based small and medium enterprises in Malaysia. *International Journal of Entrepreneurship*, 22(4).

Khurshid, A., & Ghani, J. (2001). Lahore: A public-private partnership to enter the global IT market , (Background paper). Geneva: ILO.

Lekhanya, L. M. (2018). The Digitalisation of Rural Entrepreneurship. *Entrepreneurship - Trends and Challenges*.  
<https://doi.org/10.5772/intechopen.75925>

Lichtenstein, G. A., Lyons, T. S., & Kutzhanova, N. (2004). Building Entrepreneurial Communities: The Appropriate Role of Enterprise Development Activities.

*Community Development Society. Journal*, 35(1), 5–24.  
<https://doi.org/10.1080/15575330409490119>

Megel, M. E., & Heermann, J. A. (1994). Methods of data collection. *Plastic Surgical Nursing*, 14(2), 109–110. <https://doi.org/10.1097/00006527-199406000-00014>

Mansoor, Y., & Kamba, M. A. (2010). Information acceptance and ICT resistance: Promoting the role of information in rural community development. *Library Philosophy and Practice*, 2010(JUL), 1–6.

Majerová, V. (2015). Social Aspects Of Rural Community Development. *Acta Regionalia et Environmentalica*, 12(1), 11–14. <https://doi.org/10.1515/aree-2015-0003>

Prendes-Espinosa, P., Solano-Fernández, I. M., & García-Tudela, P. A. (2021). Emdigital to promote digital entrepreneurship: The relation with open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 1–14. <https://doi.org/10.3390/joitmc7010063>

Sekaran, U., & Bougie, R. (2014). *Research Methods for Business - A Skill Building Approach (Sixth Edition)*. United Kingdom: John Wiley & Sons Ltd.

Samah, B. A., Badsar, M., Hassan, M. A., Osman, N. Bin, & Shaffri, H. A. M. (2013). Youth and telecentres in community building in rural peninsular Malaysia. *Pertanika Journal of Social Science and Humanities*, 21(July), 67–78.

Sequeira, R. R. (2020). Factors Affecting Rural Entrepreneurship. *International Journal of Research in Engineering, Science and Management*, 3(8), 3–4.

Suárez-Barraza, M. F., & Rodríguez-González, F. G. (2019). Cornerstone root causes through the analysis of the Ishikawa diagram, is it possible to find them?: A first research approach. *International Journal of Quality and Service Sciences*, 11(2), 302–316. <https://doi.org/10.1108/IJQSS-12-2017-0113>