



Journal of Economics and Business

Isa, Filzah Md, Muhammad, Nik Maheran Nik, Ahmad, Azizah, and Noor, Shaista. (2021), Effect of ICT on Women Entrepreneur Business Performance: Case of Malaysia. In: *Journal of Economics and Business*, Vol.4, No.1, 137-146.

ISSN 2615-3726

DOI: 10.31014/aior.1992.04.01.326

The online version of this article can be found at:
<https://www.asianinstituteofresearch.org/>

Published by:
The Asian Institute of Research

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Effect of ICT on Women Entrepreneur Business Performance: Case of Malaysia

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Abstract

Women entrepreneur has gained utmost importance in the past few decades in Malaysia due to their significant contribution to the country's economic development. However, few business challenges create a constant obstruction for many women entrepreneurs such as lack of ICT knowledge, time constraint to learn ICT, lack of technological expertise, etc. The present study aims to identify the effect of ICT adoption on business performance and examine how ICT usage helped them handle operational business matters. The present study adopted the qualitative research strategy, and researchers interviewed ten (10) women entrepreneurs for this study. A semi-structured interview technique was applied, and six Malay and four Chinese entrepreneurs made the study population. The result highlights that Malay and Chinese entrepreneurs use ICT in their business operation such as warehousing system, purchasing system, HRM software and accounting system, purchase order system, production system, internal communication, and AutoCAD. The present study may support the prospective entrepreneurs in considering the ICT usage to embark on technology and innovation and provide inputs to policymakers to design a proper support system for Malaysian women entrepreneurs, particularly those new entrepreneurs who are mostly young and inexperienced.

Keywords: Business, ICT, Performance, Malaysia, Women Entrepreneurs

1. Introduction

Women constitute about nearly half of the entire world population, which means partial progress of a country is on women's shoulders (Devi, 2012; Rahman et al., 2013). In line with this, developing countries worldwide are making strategies to upgrade women status since they are sometimes considered the most neglected group of society (Siddique, 2008; Noor et al., 2020b). Among the strategies are special incentives, tax rebates, duty cuts and subsidised land and training programs for women entrepreneurs. Past research highlights that women entrepreneurship leads towards economic stability and no gender inequality; while at the same, time will boost

women's self-reliance and empower them economically and socially. Also, apart from an economic perspective, development of women entrepreneurship and women empowerment are significant in developing countries (Alam et al., 2011; Basit et al., 2020; Noor et al., 2020a) including Malaysia. Generally, an entrepreneur refers to an individual who has an idea in mind and initiates it to produce good returns. Adeel et al. (2012) defined woman entrepreneur as a woman who can play an active role by interacting and participating in economic activities. Thus, to improve their family's financial wellbeing, without any fear of risk, many women entrepreneurs utilised their personal finances as a seed capital, and unexpectedly in many instances they are unaware of the outcomes of their business involvement (Hill et al., 2008; Dvir et al., 2010), which could let them experience business failure and losing their investment.

Most budding women entrepreneurs may need strong support from their spouse, family members, or close friends during the early stage of a business venture since they lack business acumen and experience to run a business effectively. Those who come from a family who owns a business could perform more confidently in any entrepreneurship activity than those who are not. In line with this, previous studies revealed that family background and upbringing are considered essential for entrepreneurial success (Shoebridge et al., 2012). This is deemed true since exposure to any entrepreneurial activity since early age could benefit them more than those who are not. The entrepreneurs will be more persevering, more confident and understand the business environment better and faster.

By attending training programs and workshops, women entrepreneurs could gain various new knowledge and skills crucial for entrepreneurship. Comparatively, women entrepreneurs in Malaysia are more fortunate since they can seek financial and technical support from several government agencies and ministries directly involved with women entrepreneurship development, i.e. MDeC, SME Corp, MARA, AIM, etc. Among the new skills that they could gain and improve is ICT skill. With this skill, they can enhance their business competencies i.e. management and operational.

In Malaysia, women participation in business has increased year after year. Even during the present pandemic Covid-19, more women choose to involve in various business activities from their homes. The Malaysian Companies Commission (MCC, 2015) reported that women had registered 187,264 companies out of 920,624 active establishments nationwide. The year 2010- 2015 depicted a fairer gender contribution from 19.2% or 127,422 companies operated in 2010 to 20.3% or 187,264 companies in the year 2015. The data showed that womenfolk opened an average of 10,000 companies annually within five years (The New Straits Time, 2018). The numbers are higher in 2021 since entrepreneurship has a low entry barrier for women. The choices of business venture vary, from manufacturing to services. To date, many women entrepreneurs have to rely more on ICT and technology-related operation to succeed in business, particularly when they work from home through a social media platform.

Due to their dual responsibilities as an entrepreneur and as a wife and mother, their involvement in business can be classified into three segments or groups based on their businesses' status: women in 'stable' business, women in newly formalised business, and women in non-formalised business. Formalisation refers to the business's legal registration (Fatimah et al., 2013; Lai et al., 2010). Those in a formal and registered business are devoting their time and effort as a full-time businesswoman, while others do it as a part-time activity. In contrast, other groups whose businesses are not registered and related to cottage production are mostly working on the base of referrals. These differences reflect the different goal orientations that Malaysian women have in venturing into business (Basit et al., 2020; Noor et al., 2019), precisely due to household responsibilities and duties. Nowadays, many Malaysian women choose non-formalised business to help increase their family's income. They conduct their business from home to cope with the limitation of movement outside the house during the unprecedented pandemic that affects the family's and country's economy.

As a country's progress and development are associated with the success of women entrepreneurship, however, the literature lacks the studies related to qualities of successful women entrepreneur (Alam et al., 2011; Fatima, Mohammad, and Joni, 2013; Noor et al. 2020c; Ariffin et al., 2017). Among a woman entrepreneur's qualities are business competency and capability, creativity, innovativeness, ICT skill, etc. Although various studies are done on women entrepreneurship, more studies are still explicitly needed to better understand women entrepreneurs'

growth and expansion and how they acquire new knowledge and skills. Hence, the present study explores the effect of ICT usage on Malaysian women entrepreneurs' business performance. It is essential to explore ICT's role among women since it has transformed many businesses to be internationalised within the shortest period compared to conventional business practices. With ICT implementation, prospective entrepreneurs may gain benefit and systematic guidance to operate more effectively and efficiently.

2. Literature Review

Women entrepreneurs are the key to economic growth and development in a country, and increasing their income is related to family wellbeing. Hence, the role of women is utmost important to achieve the main goals of national development in various fields such as nutrition and education of women (International Finance Company (IFC), 2007; the Centre for Arab Women Training and Research (CAWTAR, 2007)), to name some of them. By 1990, nearly five million sole proprietorships in the United States owned by women. Women-owned partnership company accounted for 31 per cent of all small businesses. At present, the percentage is approaching more than 90 per cent, which shows a remarkable increase of women interest in entrepreneurship (Basit et al., 2020)

Generally, women entrepreneurs in the 21st century seem to combine entrepreneurial characteristics such as self-discipline, focus, independence, systematic thinking, empathy, and creativity. A study found that many women open their businesses after they felt their previous employment was discriminatory to women (Spinuzzi, 2016). Therefore, by opening their own businesses, it was a starting point for success in business areas where they could conduct their business the way they prefer in a positive way, such as; i) practice of noble values, ii) caring for the welfare of workers and customers, iii) being a fair leader who can guide and not control, iv) put emphasise on the concept of cooperation rather than competition, v) be receptive to change, vi) be responsive, vii) willing to learn from mistakes, and viii) spend more time with family (Alam et al., 2011). The uniqueness of women entrepreneurs is that they are the source of strength to attract and inspire more new entrepreneurship talent (Aslam et al. 2012). Based on research on women entrepreneurs conducted in the Asian countries, there is no significant difference between Western countries (Low et al., 1996; Anjum et al., 2012; Ariffin et al., 2017; Brindley, 2016) in terms of challenges. For instance, less-educated women may face financial or human capital constraints, which limit their business pursuits. The individual characteristics such as age, years of formal education, managerial skills, creativity in generating ideas, ability to deal with people, and prior experiences in the industry, are positively correlated with firm performance (Brush, 2018). These characteristics can either directly or indirectly influence their business insights and competencies, i.e. their creativity in idea generation can lead them to be exposed to various new business opportunities. Also, their managerial skills may enhance their leadership quality as an entrepreneur. Moreover, women gained knowledge through their projects in managing and controlling productive resources, skill and experience, and an increase in their ability to source relevant information and solve problems that drove them to become reliable entrepreneurs that can run their business successfully (Hin et al., 2012; Basit et al., 2020).

2.1 ICT and Business Performance

Past literature shows that most of the studies focused on one dimension of ICT, i.e. electronic commerce (Kurnia et al., 2015; Turban et al., 2008) that involves buying and selling process. Few studies show a positive effect of ICT on business performance while few shown its negativity (Zaremohzzabieh et al., 2015). ICT is on fame worldwide today that includes broadband, mobile and Internet, providing women entrepreneurs with the opportunity to do their business from anywhere and anytime. Thus, ICT is now becoming the primary business strategy (Etemad et al., 2010; Ong et al., 2015). However, ICT alone may not be sufficient in some business activities, especially in manufacturing and machine-operated activities. Hence, various technologies, i.e. AutoCAD, ERP system, purchasing system, etc., all need ICT to be effective. Whether they like or not, women entrepreneurs today must equip themselves with ICT skill to strengthen business position in the market place and to compete in the international market.

In line with this, Malaysian Government encourage entrepreneurs to adopt ICT in business; however, there is a need of proper planning and Standard Operating Procedures (SOPs) to be successful (Chen, 2013; Ong et al., 2020)

and other business systems. As (Beninger et al., 2016) stated, an adaptation of ICT open new avenues for women entrepreneurs to connect to the entire world market, supplier and customer in a more systematic manner. Without a proper system, a business may not have a standardise guideline for a routine operation and can end with losses. Earlier studies on ICT are mostly general without specifying the gender, while others focus on critical factors or ICT's determinants (Oly and Kahraman, 2005; Aboelmaged, 2014). It is also suggested that the main hurdles in adopting the ICT among women entrepreneurs is lack of training, expensive equipment, and software packages (Vossenber, 2013; Bardan 2014). These hurdles can obstruct and affect the women entrepreneurs' confidence in full usage of ICT in their business activities. Other loads are related to the infrastructure that is not up to the mark, and network failure and trafficking (Gilbert et al.,2012). The existing issues and challenges may dampen their interest to adopt ICT to the fullest.

Undoubtedly, women entrepreneurs' knowledge, experience and technological expertise play a catalytic role but lack technical skills, creating a more challenging situation (Ong et al.,2020; Beninger et al., 2016; Anjum et al.,2012). Literature highlights the lack of studies about the adaptation of ICT and business performance among women entrepreneurs in Malaysia. Hence, the present study explores the effect of ICT on women entrepreneurs' performance in Malaysia.

3. Research Objective and Question:

RO: To explore the effect of ICT on **women entrepreneur business performance in Malaysia.**

RQ: How does ICT affect **women entrepreneur business performance in Malaysia?**

4. Methodology

The study adopted the qualitative methodology. A semi-structured interview technique was used for data collection. However, for any research method as highlighted by (Hall et al., 2016), philosophical underpinnings are considered very important as it depicts the researcher stance and covers the researcher's entire schema based on data collection and analysis technique. Moreover, questions are considered the base for the phenomena under study (Clough et al., 2012). The current study follows interpretivism as it deals with people's experience (Creswell, 2012). For this study, researchers had interviewed ten (10) women entrepreneurs from the northern part of Malaysia. The interviews were conducted in English and Malay and completed in four months. Interviews were tape-recorded and later on transcribed for analysis purposes. The interview lasted about 30 minutes to 45 minutes. The semi-structured interviews were based on ICT usage on women entrepreneurs' business performance. Hence, each interview question was transcribed to traceable chunks and coded by the participants for three interview questions. The study followed Johnny Saldaña's (2018) technique for data analysis. Subsequently, NVivo Software was used for the final data analysis (Hall et al., 2016). Table 1 depicts the interview questions.

Table 1: Interview Questions

Sr.no	Interview Questions
1	Does your business operation use ICT?
2	In which area or function ICT is applied in your organisation?
3	Do you think it is important to use any ICT related or Business Intelligence (BI) in providing the right information or knowledge for your business decision?

Table 2a: Participants Personal and Business Background

Question			Participants				
Categories	No	types	E1	E2	E3	E4	E5
individual factors	1	Age Category	30-39 years	40-59 years	40-59 years	40-59 years	40-59 years
	2	Marital Status	Married	Married	Married	Married	Married
	3	Do have a child/children	Yes - 2	Yes - 6	Yes - 3	Yes How many?	Yes - 4
education	4	Education level	postgraduate	secondary	tertiary	postgraduate	postgraduate
business background	5	Are you the sole owner of this business entity?	no	yes	no	yes	yes
	6	If No, name your position in the business.	M.D	-	others	CEO	partner
	7	This Business is a:	corporation	sole proprietor	corporation	partnership	partnership
	8	Your business experience in the current and (point to that):	11-15 years	11-15 years	more than 20 years	6- 10 years	1-5 years
	9	How did you involve in this business?	start on business	based on personal innovation and initiatives		based on personal innovation and initiatives	started the business with partner/partners
	10	What is the size of your company?	medium (50-249 employees)	small (10-49 employees)	medium (50-249 employees)	small (10-49 employees)	medium (50-249 employees)
	11	Any family members working in the business?	yes	no	yes	yes	yes
	12	Please specify your relation with the persons	Sister		spouse and children	son & daughter	

Table 2a: Participants Personal and Business Background

Question			Participants				
Categories	No	types	E6	E7	E8	E9	E10
individual factors	1	Age Category	40-59 years	30 -39 years	30-39 years	20 -29 years	40 - 59 years
	2	Marital Status	Married	Married	Single	Married	Married
	3	Do have a child/children	yes 3	Yes, two	No	Yes, One	Yes, One
education	4	Education level	Tertiary level	Secondary	Tertiary level	Tertiary level	Postgraduate (MBA) (DBA)
business background	5	Are you the sole owner of this business entity?	No	No	No	No	Yes
	6	If No, name your position in the business.	General Manager	Partner and manager	Partner and manager	Shareholder and manager	
	7	This Business is a:	Corporation	Partnership	Partnership	Sole proprietor	Corporation
	8	Your business experience in the current and (point to that):	More than 20 years	11 – 15 years	6 to 10 years	6 to 10 years	11 - 15 years
	9	How did you involve in this business?	Based on personal innovation and initiatives	Started with partner	Based on personal innovation and initiatives	With the help of husband	Based on personal innovation and initiatives
	10	What is the size of your company?	Medium (50- 249)	Small	Micro (1- 9 staff)l	Medium (50- 249)	Micro (1 - 9 employees)
	11	Any family members working in the business?	Yes	No	No	Yes	No
	12	Please specify your relation with the persons	Children			husband	

Table 2a & 2b summaries the women entrepreneurs' demographic factors and business backgrounds such as age category, marital status, number of children, education, type of ownership, business experience, company size, family member in business etc.

5. Discussion

The interviews were conducted to get a holistic view of women entrepreneurs' (Malays and Chinese) business performance after adopting ICT. The coded data cross-referenced to highlight the similarities and differences of participant views. As (Crotty, 1998) explained, continuous comparison leads to fewer themes for research questions. Table 3 depicts the main themes and sub-themes generated from transcribed interviews.

Table 3: Themes generated

Interview Questions	Themes	No of Participants
Does your business operation use ICT?	Yes	10 (M-6 C-6)
	No	0
In which area or function ICT is applied in your 142tilizing142in?	Company website	10(M-6 C-4)
	Advertising	9 (M-5C-4)
	Account system.	8(M-4 C-4)
	ERP system	7(M-5 C-2)
	UBS system	6(M-3 C-3)
	Warehousing system	9(M-5 C-4)
	Training	7(M-4 C-3)
	Purchasing system	7(M-5 C-2)
	Internal Communication	9(M-6 C-3)
	AutoCad	9(M-5 C-4)
Do you think it is important to use any ICT in providing the right information or knowledge for your business decision?	Yes	7 (M-3 C-4)
	No	3 (M-3 C-0)

Note: (M= Malay C= Chinese)

6. Findings

The study's findings concerning ICT usage that most of them use ICT to develop a company website (M-6, C-4) for advertising (M-5, C-4) account system 8(M-4, C-4), ERP system (M-5, C-2), UBS system (M-3, C-3), Warehousing system(M-5, C-4), Training (M-4, C-3), Purchasing system (M-5, C-2), Internal Communication (M-6, C-3), and AutoCad (M-5, C-4). These results show that ICT usage is considered an essential tool in the business, and they only use it for specific purposes. The feedbacks of the participants below show the importance of ICT in women entrepreneurship.

"We cannot run away from ICT, whoever wants to succeed in business must use ICT, because it has no boundaries, especially from the marketing side" (E3).

"We use ICT mainly to develop production system, 142 tilizing 142 ing between departments for internal communication. The company also use AutoCad for tooling design and development" (E6).

"We use ERP system in procurement, CAD or CAM in designing machines and UBS system in accounting"(E9).

The results above highlight that all entrepreneurs use ICT in certain areas in their business operation, and Malay entrepreneurs are more inclined to adopt ICT than Chinese. Therefore, ICT can be treated as an essential tool that influences business success. There are various tools the entrepreneurs may adopt to enhance the success rate. For instance, Standard Operation Procedures (SOPs) must be closely adhered to manage and align their business operating efficiently. The finding is in line with previous research that proper use of ICT will ensure the business success (Kurnia et al., 2015; Turban et al., 2008; Chen, 2013; Ong et al.,2020; Zaremohzzabieh et al., 2015). ICT

may provide a wide range of opportunities for women entrepreneurs' business development and act as a driving force to boost their business venture internationally. Malaysian women entrepreneurs adopt ICT usage in various business tasks such as drafting letters, preparing reports, database setup, planning, budgeting, resolve the overall analysis of problems, etc. ICT also provided the channel for speedy communication with suppliers, vendors, retailers, sellers, customers and other parties. It is proposed that in order to make women more active in ICT usage, more training programmes and workshops must be provided by the government agencies and ministries for women entrepreneurs, especially to those who live in the rural areas, to make them more familiar and confident in utilising ICT. These programmes could either be free or with a certain amount of fee charges based on the type and level of training and workshop.

7. Theoretical Justification

This study is governed by the Resource-based view (RBV). RBV is a method used to achieve competitive advantage. The concepts of resource, capability and competence have been widely discussed in management literature. As compared to the larger firms, smaller firms are less competitive because they may possess less of those three factors (Barney, 1991). According to Barney (1991), the resource-based view (RBV) implies that differences in performance between businesses may be better clarified through differences in firm resources and accumulation and usage. Businesses have a propensity to grow because of wanting to reach for economies of scale (Chandler & Hanks, 1994). There may still balance to use internal and external resources (Alvarez & Busenitz, 2001). RBV focuses on the activities that can perform with business resources. Some researchers divide resources into four categories: human, financial, physical and intangible, or four factory outputs: performance, flexibility, innovativeness, and delivery plus three network outputs; namely accessibility, mobility, and learning (Kellermanns, Walter, Crook, Kemmerer, & Narayanan, 2014). The resource-based theory is focused on performance relative to competitors (Alvarez and Busenitz, 2001). Resource-based perspective needs to achieve and support the competitive advantage. In most situations, competitive advantage is beneficial to the business when the small number of firms implement a value-creating strategy. In the resource-based view, entrepreneurs in Small Medium Enterprises (SMEs) as a manager are vital to controlling the firm's performance by utilising its resources (Barney, 1991). They have to choose the suitable strategy to make the most effective use of the firm's resources and capabilities. The firm resources comprise capabilities, processes, firm attributes, knowledge, and information controlled by a firm (Barney, 1991), which leads to the firm's competitive advantage. Contrasting to Barney (1991) was Wernerfelt, who identified resources to have consisted of anything that might be thought of as a given firm's strength or weakness (Wernerfelt, 1984). Resources can be turned into tautological and circular. Resources are considered to include anything contributing to a firm's sustainable performance (Wiklund and Shepherd, 2003). The resource-based perspective can still be considered lacking maturity. Even the exact definitions of key concepts, such as resources, competences, core competencies, capabilities, and dynamic capabilities, have not been agreed upon or remain ambiguous and controversial. The resource-based view has been instrumental in improving the legitimacy of the strategic management field as perceived by scholars in other, more conventional disciplines, including mainstream economics and organisation science (Kellermanns, Walter, Crook, Kemmerer, & Narayanan, 2014).

8. Conclusion

Woman entrepreneur's contribution to the Malaysia economic is very significant and should never overlook all parties. The present study examines the effect of ICT on women entrepreneurs' business performance. This study examines and gathers detailed information on women entrepreneurs and how successful women entrepreneurs in Malaysia are by strategising ICT in business. The research findings indicated that the entrepreneurs use ICT freely as they are more comfortable with ICT usage in business and are almost similar for both ethnics, Malay and Chinese. Their experience, issues and problems are also identical. Future studies may be conducted using a quantitative approach to find the most trends of women entrepreneurs' business success by ICT usage. Since this research focuses on Malaysia's northern region, further research should explore the impact of ICT in women entrepreneurs' businesses in different areas, sizes, and types of business. Also, Indian women entrepreneurs can be included in future study.

ACKNOWLEDGEMENT

This research will not be possible without the Ministry of Higher Education Malaysia (MOHE) and the technical support from Universiti Utara Malaysia (UUM). Therefore, we would like to express our gratitude to both MOHE and UUM for giving us this meaningful research opportunity. We would also like to acknowledge the contribution of Dr Siti Norezam Othman and Dr Cheng Wei Hin in this research project. Our sincere prayers to the improvement of their health.

References

- Aboelmaged, M. G. (2014). Predicting E-rEadinEss at firm-level: An analysis of technological, organizational and environmental (TOE) effects on E-maintEnancE readiness in manufacturing firms. *International Journal of Information Management*, 34(5), 639-651. <https://doi.org/10.1016/j.ijinfomgt.2014.05.002>
- Adeel, M., Khan, N., Naz, H., Raza, S. A., & Fatima, S. (2012). Problems and Prospects of Women Entrepreneurs : A case study of Quetta-Pakistan. *International Journal of Business and Social Science*, 3(23), 177–183.
- Alam, S. S., Jani, M. F., & Omar, N. A. (2011). An empirical study of success factors of women entrepreneurs in southern region in Malaysia. *International Journal of Economics and Finance*, 3(2). <https://doi.org/10.5539/ijef.v3n2p166>.
- Alvarez, S. A., & Busenitz, L. W. (2001). The entrepreneurship of resource-based theory. *Journal of Management*, 27(6), 755-775.
- Anjum, M. A., Khan, N., Naz, H., Raza, S. A., & Fatima, S. (2012). Problems and Prospects of Women Entrepreneurs: A case study of Quetta-Pakistan. *International Journal of Business and Social Science*, 3(23), 1-7.
- Ariffin, A. S., Baqutayan, S. M. S., & Mahdzir, A. M. (2017). *Enhancing Women Entrepreneurship Development Framework: Policy & Institution Gap and Challenges in the Case of Malaysia*. *Journal of Science, Technology and Innovation Policy* (Vol. 3).
- Aslam, T. M., & Awan, A. S. (2012). An Empirical study of Family back ground and Entrepreneurship as Career selection among University Students of Turkey and Pakistan, 3(15), 118–123.
- Badran, M.F.B. Access and use of ICT in female owned SMEs in selected Arab countries and Brazil: A comparative study, Maastricht School of Management, Working Paper No. 2014/12
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Basit, A., Hassan, Z., & Sethumadhavan, S. (2020). Entrepreneurial success: Key challenges faced by Malaysian women entrepreneurs in 21st century. *International Journal of Business and Management*, 15(9), 122. <https://doi.org/10.5539/ijbm.v15n9p122>.
- Beninger, S., Ajjan, H., Mostafa, R. B., & Crittenden, V. L. (2016). A road to empowerment: Social media use by women entrepreneurs in Egypt. *International Journal of Entrepreneurship and Small Business*, 27(2/3), 308. <https://doi.org/10.1504/ijesb.2016.073987>.
- Brindley, C. (2016). Barriers to Women Achieving Their Entrepreneurial Potential : Women and Risk International Journal of Entrepreneurial Behavior & Research Article information :, (April 2005). <https://doi.org/10.1108/13552550510590554>.
- Chandler, G. N., & Hanks, S. H. (1994). Market attractiveness, resource-based capabilities, venture. strategies, and venture performance. *Journal of Business Venturing*, 9, 331– 350.
- Chen, L. (2013). The quality of mobile shopping system and its impact on purchase intention and performance. *International Journal of Managing Information Technology*, 5(2), 23-32. <https://doi.org/10.5121/ijmit.2013.5203>.
- Clough, P., and Nutbrown, C. (2012). *A Student's Guide to Methodology: Justifying Enquiry* (3rd Ed.). London: Sage.
- Creswell, J. W., & Poth, C. N. (2012.). *Qualitative inquiry & research design : choosing among five approaches*. Retrieved from <https://in.sagepub.com/en-in/sas/qualitative-inquiry-and-research-design/book246896>.
- Crotty, M. (1998) *The foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage Publications.
- Devi, R. H. (2012). Women empowerment through entrepreneurship. *Global Journal For Research Analysis*, 3(8), 1-3. <https://doi.org/10.15373/22778160/august2014/113>.

- Dvir, D., Sadeh, A., & Malach-Pines, A. (2010). The fit between entrepreneurs' personalities and the profile of the ventures they manage and business success: An exploratory study. *The Journal of High Technology Management Research*, 21(1), 43-51. <https://doi.org/10.1016/j.hitech.2010.02.006>.
- Etemad, H., Wilkinson, I., & Dana, L. P. (2010). Internetization as the necessary condition for internationalization in the newly emerging economy. *Journal of International Entrepreneurship*, 8(4), 319-342. <https://doi.org/10.1007/s10843-010-0062-x>.
- Fatimah-Salwa, A. H., Mohamad-Azahari, A., & Joni-Tamkin, B. (2013). An empirical evidence from Malaysia: What makes the Muslim entrepreneurs succeed? *International Journal of Economics and Finance*, 5(7). <https://doi.org/10.5539/ijef.v5n7p94>.
- Gilbert, Jr, A. H., Pick, R. A., & Ward, S. G. (2012). Does "IT doesn't matter" Matter?: A study of innovation and information systems issues. *Review of Business Information Systems (RBIS)*, 16(4), 177-186. <https://doi.org/10.19030/rbis.v16i4.7437>
- Hall, E., Chai, W., & Albrecht, J. A. (2016). A Qualitative Phenomenological Exploration of Teachers' Experience With Nutrition Education. *American Journal of Health Education*, 47(3), 136–148. <https://doi.org/10.1080/19325037.2016.1157532>.
- Hani, U., Rachmania, I. N., Setyaningsih, S., & Putri, R. C. (2013). Patterns of Indonesian Women Entrepreneurship. *Procedia Economics and Finance*, 4(Icsmed), 274–285. [https://doi.org/10.1016/s2212-5671\(12\)00342-5](https://doi.org/10.1016/s2212-5671(12)00342-5).
- Hill, S. A., & Birkinshaw, J. (2008). Strategy – organization configurations in corporate venture units : Impact on performance and survival,23(August 2004), 423–444. <https://doi.org/10.1016/j.jbusvent.2007.04.001>.
- Hin, C. W., Md Isa, F., & Hee, H. C. (2020). A study of perception of international students on quality of Malaysian cars. *Malaysian Management Journal*. <https://doi.org/10.32890/mmj.18.2014.9013>.
- IFC (International Finance Corporation) (2007), 'Gender entrepreneurship markets, GEM Country Brief:' Paper No. 44197, February.
- Kellermanns, F., Walter, G., Crook, R. T., Kemmerer, B., & Narayanan, V. (2014). The resource-based view in entrepreneurship: A content-analytical comparison of researchers' and entrepreneurs' views. *Journal of SME Management*, 54(1), 26-48.
- Kurnia, S., Karnali, R. J., & Rahim, M. M. (2015). A qualitative study of business-to-business electronic commerce adoption within the Indonesian grocery industry: A multi-theory perspective. *Information & Management*, 52(4), 518-536. <https://doi.org/10.1016/j.im.2015.03.003>.
- Lai, K., Nathan, R., Tan, K., & Chan, B. (2010). Effect of innovation to the success of female entrepreneurs. *Journal of Innovation Management in Small and Medium Enterprise*, 1-14. <https://doi.org/10.5171/2010.369877>.
- Low, A. M., & Tan, W. L. (1996). *Entrepreneurs, entrepreneurship and enterprising culture*. Addison-Wesley.
- Noor, S., Md. Isa, F., & Mohd Nor, L. (2019). Ageing care centre women entrepreneur: A silver bullet for ageing tsunami in Malaysia. *Sains Humanika*, 12(1). <https://doi.org/10.11113/sh.v12n1.1600>
- Noor, S., & Md. Isa, F. (2020a). Entrepreneurial opportunities for Malaysian women in ageing care industry. *Social and Management Research Journal*, 17(2), 83. <https://doi.org/10.24191/smrj.v17i2.10515>.
- Noor, S., Isa, F. M., Hossain, M. S., & Shafiq, A. (2020b). Ageing care centers: Mediating role of quality care and proactive environment. *Journal of Population and Social Studies*, 28(4), 324-347. <https://doi.org/10.25133/jpssv28n4.022>.
- Noor, S., & Isa, F. M. (2020c). Contributing factors of women entrepreneurs' business growth and failure in Pakistan. *International Journal of Business and Globalisation*, 25(4), 503. <https://doi.org/10.1504/ijbg.2020.109115>.
- Oly Ndubisi, N., & Kahraman, C. (2005). Malaysian women entrepreneurs: Understanding the ICT usage behaviors and drivers. *Journal of Enterprise Information Management*, 18(6), 721-739. <https://doi.org/10.1108/17410390510628418>
- Ong, S.Y.Y, Habidin, N.F, Salleh, M.I. and Fuzi, N.M. (2015) 'The relationship of WEP towards ICT adoption', *International Journal of Innovative Research and Creative Technology*, Vol. 1, No. 1, pp.88–91.
- Ong, S. Y., Habidin, N. F., Salleh, M. I., & Fuzi, N. M. (2020). The relationship between women's entrepreneurship practice, ICT adoption, and business performance in Malaysia and Indonesia. *International Journal of Entrepreneurship and Small Business*, 39(4), 530. <https://doi.org/10.1504/ijesb.2020.106470>.
- Rahman, S. M., Alam, M. K., & Kar, S. (2013). Factors considered important for establishing small and medium enterprises by women entrepreneurs—A study on Khulna city. *Business and Management Horizons*, 1(1), 171. <https://doi.org/10.5296/bmh.v1i1.3924>.
- Saldaña, J. (2018). Writing Autoethnography. *Writing Qualitatively*, 156-175. <https://doi.org/10.4324/9781351046039-14>.
- Siddique, Md. Mohsin Uddin (2008). "Prospects and Problems of Women Entrepreneurs: A study on Dhaka City." *Dissertation Paper, Department of Development Studies*, BRAC University, Dhaka, Bangladesh.

- Shoebridge, A., Buultjens, J., & Peterson, L. S. (2012). Indigenous entrepreneurship in northern NSW, Australia. *Journal of Developmental Entrepreneurship*, 17(03), 1250017. <https://doi.org/10.1142/s1084946712500173>.
- Spinuzzi, C. (2016). Introduction to the special issue on entrepreneurship communication. *IEEE Transactions on Professional Communication*, 59(4), 316-322. <https://doi.org/10.1109/tpc.2016.2607803>.
- The New Straits Time, (2018), "Women own 1 in 5 companies in Malaysia: Statistics Dept., *National Economic Census, Companies Commission of Malaysia*, 2016. <https://www.nst.com.my/news/nation/2017/06/251038/women-own-1-5-companies-malaysia-statistics-dept>, November 22, 2018.
- Turban E, King D, McKay J, Marshall P, Lee J, & Viehland D (2008) *Electronic commerce: A managerial perspective* (5th ed.). Upper Saddle River, NJ: Prentice Hall.
- Vossenbergh, S. Women Entrepreneurship Promotion in Developing Countries: What explains the gender gap in entrepreneurship and how to close it?, Maastricht School of Management. Working Paper No.2013/08, 2013.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5, 171– 180.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24(13), 1307–1314.
- Zaremohzzabieh, Z., Samah, B. A., Muhammad, M., Omar, S. Z., Bolong, J., Hassan, M. S., & Shaffril, H. A. (2015). A test of the technology acceptance model for understanding the ICT adoption behavior of rural young entrepreneurs. *International Journal of Business and Management*, 10(2). <https://doi.org/10.5539/ijbm.v10n2p158>.