

## AN ANALYSIS OF SUCCESS FACTORS OF DIGITAL ENTREPRENEURS IN WESTERN PROVINCE, SRI LANKA

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**ABSTRACT:** *The nature of uncertainty in entrepreneurial activities and methods for coping with uncertainty have changed as a result of digital technology. Many businesses in Sri Lanka have failed within a few years of their founding, despite the efforts of entrepreneurs. There has been little study done on the prospects, difficulties, and key success elements of digital entrepreneurship. The goal of this study was to pinpoint the key success factors (CSFs) that govern how well digital business is implemented. The literature review identified relationship competency, IT business process integration competency, and competency in digital business strategy as antecedents of E-business success. Data was gathered by utilizing a questionnaire and was acquired using quantitative research techniques. E-business success was measured using reflective and formative items on e-efficiency, e-business lock in and e-business novelty. Partial Least Squares Structured Equation Modelling (PLS-SEM) was used to assess a randomly chosen sample of 120 digital entrepreneurs in Western Province, Sri Lanka. It was discovered that there is a strong correlation between e-business performance and competency in digital business strategy, IT business process integration, and both. These variables explained 34% of the variation of the e-business success. The report makes some recommendations for steps that entrepreneurs and the government should take to succeed in digital commerce in light of its results.*

**Keywords:** Digital entrepreneurship, e-Business success, Digital business strategy

### 1. INTRODUCTION

Understanding the nature and causes of uncertainty that underpin entrepreneurial efforts as well as how entrepreneurial activities take shape in the face of such uncertainty has been a major focus of entrepreneurship study (Satalkina & Steiner, 2020). Uncertainty "is a conceptual cornerstone for most conceptions of the entrepreneur"(McMullen & Shepherd, 2006). Mobile computing and social media are a few examples of new digital technologies that have been integrated into various aspects of innovation and entrepreneurship in recent decades. These technologies have altered the nature of the inherent uncertainty in entrepreneurial processes and outcomes as well as the methods for dealing with it. This has led to a number of critical research questions on digital entrepreneurship at the intersection of technology and business, which necessitate close scrutiny of digital technologies and their unique capacities to influence entrepreneurial initiatives.

Digital technology therefore plays an increasingly crucial part in the entrepreneurial opportunity's process as well as its final result. Using Davidsson's (2015) model for entrepreneurial potential as a guide, digital artifacts and platforms help create new venture ideas (outcomes), while digital infrastructure operates as an external facilitator (supporting the process).

Digitalization is presently a very important factor in entrepreneurship and innovation, according to Berger et al. Digital technologies change the inherent unpredictability of business

processes and results in this way. Digital companies, according to von Briel et al. (2021), are built on concepts with digital artifacts at their heart. According to Fossen et al., highly trained workers and ICT professionals who are dealing with disruptive digitalization processes are more likely to become future online entrepreneurs.

The objective of Ammirato et al. (2019) were to categorize the various types of digital entrepreneurs. Following their analysis, they came to the conclusion that there are three different categories of digital entrepreneurs: "very young emerging," "focused emerging," and "seasoned in business." According to Cavallo et al. (2019), the growth of digital entrepreneurship is mostly dependent on outside financial sources. According to these academics, access to external investment fosters the expansion of emerging digital businesses.

E-commerce in Sri Lanka have seen a rapid growth over the last years with a large percentage of people making purchases online (Derana Entertainment (Pvt) Ltd, 2020). Sri Lanka's E-commerce business is projected to hit USD 400 million by 2022 (Daily News, 2018). Sharma and Rautela (2021) note that digitalization was considered as a main strategy in Covid-19 crisis for SMEs in South Asia. Although the technical landscape has undergone a significant transformation, only few SMEs have adopted digitalization to reach out to bigger customer groups (Perera, Mudalige, & Liyanage, 2011). Such digitization was required during the Covid-19 era of social isolation, and those who were prepared and capable of a rapid digital transformation gained an edge (Bloombergquint.com, 2020). SMEs realized the need of digital transformation and began adopting digital knowledge management with the onset of the COVID-19 pandemic (Valk & Planojevic, 2021).

Limited amount of research is available on success factors of digital entrepreneurs. Al-Fadhli (2011) carried out research on Critical Success Factors influencing E-Commerce in Kuwait. He found that e-Commerce readiness in Kuwait is below global standard, by assessing technological, legal and environmental contexts. Malaysian Ecommerce entrepreneur success factors were discussed by Firdause et al. (2017).

However, despite its contemporary importance, recent entrepreneurship research has largely ignored the part that digital technology play in entrepreneurial endeavors. Despite its advantages, many developing nations still find it difficult to embrace e-commerce (Agren & Barbutiu, 2018). Many authors argue that there is little consensus on digital entrepreneurship's purpose, nature, and boundaries. Zhao & Collier (2016) argue that research does not always synchronize and reflect with practice of many different country contexts.

With the availability and easy access to internet, many internet startups boomed in Sri Lanka, according to the (Sri Lanka Top Startups, n.d.) there are top 284 internet startups in Sri Lanka which is topped by a classified website Ikman.lk and followed by Roar Media which is a digital media platform, lankaproperty.com a property classified website, wasi.lk online ecommerce website, Auto Lanka an automobile e-magazine. Business models of these top internet entrepreneurs are focused on buying and selling (Wasi.lk, Mydeals.lk, Takas.lk, Mystore.lk, Big Deals, Labai.lk), classified websites where they earn revenue from classified ads and listings such as ikman.lk, Lanka property Web. Pickme.lk is a taxi hailing app and Pay Here is an online payment gateway provider which helps people to send and receive money globally.

In this regard, numerous studies stressed the significance of investigating variables to model entrepreneurial intent (EI) (Ozaralli & Rivenburgh, 2016). Researchers should concentrate on identifying and modeling quantitative indicators of digital entrepreneurship. Therefore, the main goal of this research is to discover the factors that support digital entrepreneurship in Sri Lanka. Although some of the online startups in Sri Lanka has strived many startups are prone to failures and most of the other startups have failed within few years of inception. This leads to a research question on what are the factors that affect the success or failures of online entrepreneurs and the whole online entrepreneurship market in Sri Lanka. There are few studies carried out to assess the critical factors that affect the Online Entrepreneurs in Sri Lanka. Therefore, the broader research question that this research attempt to discuss is:

*What are the factors that influence the success of Online Entrepreneurs in Sri Lanka?*

Following is the objective that this research will focus on

- Identify the factors that affect the success of online entrepreneurs in Sri Lanka

This research will help digital entrepreneurs to identify the barriers which diminish their growth so they can implement contingency plans and sustain in the industry. This study will give a guideline to policy makers to make correct policy decisions which will not hinder the growth of online entrepreneurs in Sri Lanka. Since Sri Lanka is in an economical struggle due to the Covid-19, the growth of the Online Entrepreneurship industry will directly help to uplift the economy in Sri Lanka as they can contribute immensely on bringing foreign remittance to Sri Lanka.

## **2. LITERATURE REVIEW**

Digital business models operate very differently from conventional ones, according to Bican & Brem (2020). In order to succeed, digital entrepreneurs must be conscious of the differences, opportunities, and threats; otherwise, the endeavor runs a high risk of failing. Given the importance of networks and communities for digital entrepreneurs, Wind (2008) claims that digital businesses represent a "shift from traditional management approaches to "network orchestration".

IT and digital technologies have a wide range of effects on business innovation and entrepreneurship because they can facilitate, mediate, or result from entrepreneurial operations or the overall business model.

Success of e-business and digital entrepreneurship depends on two main aspects. First, how well the business can foresee the strategic potential of emerging digital technologies in its industry. Understanding of digital business concepts and strengths and weaknesses of the own organization in e business domain is critical for this. Secondly, the ability to construe and use strategic planning process effectively which is needed to develop a digital business strategy (Elia, Margherita, & Passiante, 2020). This dimension describes how digital business will be put into action in the long run. Therefore, the following hypothesis can be formed.

*H1: Competency in digital business strategy and strategic planning is positively associated with e-business success*

IT-business process integration and systems was found to be a major success factor in past digital entrepreneurship research (Standing & Mattsson, 2018). A company's ability to realize potential benefits of new technology was affected by its ability to coordinate business processes that leveraged its potential. Past researchers argue that adoption of digital business heavily altered internal processes and procedures. Competencies in IT-business process integration can be stated as "the ability to integrate IT and business knowledge to devise new business processes". The competency to manage IT in general and competency in systems and infrastructure were the two dimensions of IT business process integration as per Bharadwaj et al. (2000).

*H2: Competency in IT business process integration is positively associated with e-business success*

The research currently available emphasizes the value of social capital (networking) for SMEs (Pinho & Prange, 2015). The employment of qualified personnel, the introduction of clients and vendors, the acquisition of financial resources, and the acquisition of intellectual capital all depend heavily on social capital. The benefits of human capital are expected to be amplified through formal and informal social networks (i.e knowledge, experience etc.). Networks, in the opinion of researchers, support indirect learning in companies (Apaydin, Thornberry & Sidani, 2020). The potential to develop networks are known as relationship competency. In the era of digital business domain and network economy, relationship competency includes sourcing and alignment. Digital enterprises may benefit from digital business prospects and forge important business alliances thanks to sourcing and alignment capabilities. Therefore it was hypothesized:

*H3: Relationship Competency is positively associated with e-business success*

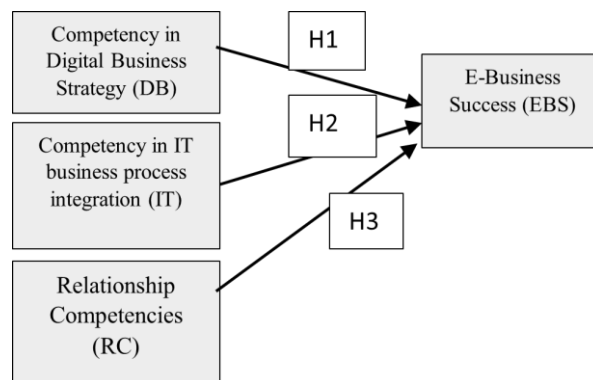


Figure 1. Conceptual Framework (Source: Amit and Zott (2012) and Eikebrokk and Olsen (2007))

### 3. METHODOLOGY

The population of this study consist of the online startups of Sri Lanka. Based on latest statistics of population details provided it is evident there is a total of 280 online startups and businesses in Sri Lanka. However, a sample that is representative of the entire population would be chosen owing to resource constraints like accessibility and time. A sample of 137

respondents was chosen. The number of responses to the questionnaire distributed was 120. A structured questionnaire was used to test the conceptual framework.

The e-business success was measured using Amit and Zott (2012) reflective measurement model. The e business success scale had three main dimension which are e-efficiency, e-business lock in and e-business novelty. E-business lock in indicated the how costly it is for the customers to replace the current company/product whereas e-business novelty indicated how innovative and pioneering the company is when it comes to digital business. All other indicators were derived from Eikebrokk and Olsen (2007).

Even though the scales were chosen a priori, a pilot study was done to see how well the items were understood before the questionnaires were actually distributed. For this pilot research, ten (10) digital entrepreneurs were chosen on the basis of convenience. This was to ensure that the items in the questionnaire will be understood by the targeted group. No major revisions to the questionnaire were done after pilot study.

#### 4. RESULTS AND DISCUSSION

A majority of online entrepreneurs in Sri Lanka, comprising of 51%, have 3 to 5 years of experience in the field. This is a fair level of experience. Only 27% have more than 5 years of experience in the field. Only a minority of 22% of online entrepreneurs have less than 3 years' experience in their relevant field. Hence, it can be said that most employers and digital entrepreneurs in Sri Lanka have substantial experience.

A majority of online business earned a turnover between LKR 16 million to LKR 250 million, comprising 40% of the selected sample. Only 23% earns the lowest, even that between 0 to LKR 15 million. The results of this sample also indicate that most of the online business in Sri Lanka take place in or use Facebook as their primary platform to conduct business activities, as there is a percentage 49. Affiliate marketing is the second largest form of online business in Sri Lanka with 23% of Sri Lankan businesses. The least used forms are freelancing and classified. Most online businesses operating in Sri Lanka are small in terms of the number of employees as 41% of the online businesses employ between 0 to 50 employees only.

For an outer measurement model, factor component loadings of at least 0.50 are often regarded as significant. This research's outer measurement model's indicators all met the minimum 0.5 requirement. So the convergent and discriminant validity checks were conducted without removing any indicators of the measurement model.

Table 1: AVE for the constructs

Variable	AVE
EBS	0.5857
DB	0.6066
IT	0.7087
RC	0.8390

If HTMT values are less than 0.85, discriminant validity is established (Kline, 2011). All constructs reported an HTMT value below the threshold value of 0.85.

The number of bootstrap samples was set to 500 to run the SMARTPLS program.

Table 2: Summary of structural model testing

	Path	Path Coefficient	SE	t	Significance
H1	DB>EBS	0.286	0.067	4.232	Yes
H2	IT>EBS	0.263	0.069	3.982	Yes
H3	RC>EBS	0.130	0.055	2.528	Yes

Competency in Digital Business Strategy, Competency in IT business process integration and Relationship Competencies explain 34% of the variance of e-business success. This is of a moderate significance in explaining the success of e-business. The analysis showed that all three competencies are important for digital business capability and success in digital organizations.

The way new company ventures are created of and established in the modern world is significantly impacted by digital technology. According to the resource-based view (RBV) (Barney, 1991), the ability to control resources that are valuable, rare, unique, and particular to the firm gives these business models a competitive edge. The digital organizations, most of the time do not acquire or possess physical assets that match above criteria. A digital platform's network of (different) players, their interactions with one another, and the interchange of information among them are its most important (intangible) assets. These resources produce an advantageous competitive position that is difficult to match (van Alstyne, Parker & Choudary, 2016). One of the key advantages of digital business models, according to Yoo et al. (2002), is transaction speed and efficiency provided by ICT, which result in a large decrease in search and transaction costs.

In research by Sebor, Lee, and Sukasame (2009), the success of an e-commerce enterprise was correlated with founders' achievement orientation, strategic planning capability and locus of control, as well as their attention on the quality and usability of their e-services. They found that the founder vision and his prior experience at strategic level management play a key role in success. As per Ghobakhloo and Iranmanesh (2020), Small organization need to have particular capabilities such as management of change and strategic planning capability with respect to digitalization to reach cyber success. Developing a strategy in digital business took more time and was connected to implementation compared to brick and motor organizations. They emphasized having a broad, "big picture" vision and a solution for customers' requirements instead of developing a formal business strategy (Zaheer et al. 2018). The outcome of this research matches these previous research findings with respect to competencies in digital business. It highlights the importance of strategic focus, vision and forte in strategic planning process (ideally supported by his/her previous strategic management level experience).

Organizations need to understand how improving their IT capacity may help them create and leverage value (Nambisan, 2017). Successfully managing a digital business is not always about specialized IT knowledge or competencies. General IT management play a critical role in success. This research finding demonstrate that a set of generic IS abilities, enabled by a number of technologies, may forecast the success of e-business.

According to the Industry 4.0 scenario, future SMEs must reach the highest degree of digitization, which includes vertically integrating every industrial function at the plant level and horizontally integrating for data and information exchange with partners and clients (Mittal et al., 2020). As a result of electronic networks of businesses, e-business may now be conducted in innovative ways that cross organizational boundaries. Thus, the interorganizational alliance's effectiveness and the participants' capacity to add value in these networks would be dependent on their relationship competencies. Digital entrepreneurs need to develop their relationship competencies. Starting to network and accumulating significant social capital is another way to ensure the early success of a digital start-up. The most important network partners are those that the entrepreneur has built up over the course of their career (Spiegel et al., 2016). Findings of this research reinforces such previous research.

Digital entrepreneurs as well as SMEs willing to digitalize their operations must understand which competencies have the best chance of improving the IS competence. Engaging in competence networks and encouraging industry associations to launch initiatives to improve member firms' e-business proficiency are both very relevant. Any SME considering digital transformation should perform some kind of pre-assessment of their digitalization readiness to see whether they have the skills and resources required to build critical capabilities like IDT maturity.

Few limitations of this research can be stated. This paper focused only on few E business success factors found in literature. There are many other variables identified as antecedents of digital entrepreneurship success such as digital entrepreneurship ecosystem, knowledge management, dynamic capabilities etc. Future research could incorporate these variables in the research frameworks. Also since digital entrepreneurship process and ecosystem vastly varies from developing countries to developed countries (Bican & Brem, 2020), applicability of research results of this research is doubtful in developed context.

## **5. CONCLUSION**

Based on the literature review, competency in digital business strategy, competency in IT business process integration and relationship competency were identified as antecedents of E-business success. The quantitative research methods were used and data were collected by using a questionnaire. E-business success was measured using reflective indicators on e-efficiency, e-business lock in and e-business novelty. A randomly selected sample of 120 digital entrepreneurs in Western Province, Sri Lanka were analyzed using Partial Least Squares Structured Equation Modelling (PLS-SEM) method. Most employers and digital entrepreneurs in Sri Lanka have substantial prior experience. The results of this sample indicated that most of the online business in Sri Lanka take place use Facebook (49%) as their primary platform to conduct business activities. It found that there is a significant positive relationship between competency in digital business strategy, competency in IT business process integration and relationship competency and e business success. These variables explained 34% of the variation of the e-business success.

Future research should pinpoint the players and organizations that potentially shape the digital entrepreneurship ecosystem. To determine a country's impact on influencing digital entrepreneurship, further research can look at the settings of other nations, such as developed vs. rising economies. Future studies may look at external factors like economic and technical forces that may have an impact on how digital start-ups flourish.

## REFERENCES

- Agren, E. S., & Barbutiu, S. M. (2018). *Barriers in the adoption of e-commerce in Pakistan with the focus on Gender. International Journal of Scientific and Technology Research*, 7(1), 23–31.
- Al-Fadhli, S. (2011). *Factors Influencing the Acceptance of Distance-Learning: A CASE STUDY OF ARAB OPEN UNIVERSITY IN KUWAIT. International Journal of Instructional Media*, 38(2).
- Amit, R., & Zott, C. (2012). *Creating value through business model innovation*. 2012, 53.
- Ammirato, S., Sofo, F., Felicetti, A. M., Helander, N., & Aramo-Immonen, H. (2019). *A new typology to characterize Italian digital entrepreneurs. International Journal of Entrepreneurial Behavior & Research*.
- Apaydin, M., Thornberry, J., & Sidani, Y. M. (2020). *Informal social networks as intermediaries in foreign markets. Management and Organization Review*, 16(3), 629-656.
- Bican, P. M., & Brem, A. (2020). *Digital business model, digital transformation, digital entrepreneurship: Is there a sustainable “digital”?. Sustainability*, 12(13), 5239.
- Cavallo, A., Ghezzi, A., & Balocco, R. (2019). *Entrepreneurial ecosystem research: Present debates and future directions. International Entrepreneurship and Management Journal*, 15(4), 1291-1321.
- Davidsson, P. (2015). *Entrepreneurial opportunities and the entrepreneurship nexus: A re-conceptualization. Journal of business venturing*, 30(5), 674-695.
- Eikebrokk, T. R., & Olsen, D. H. (2007). *An empirical investigation of competency factors affecting e-business success in European SMEs. Information & Management*, 44(4), 364-383.
- 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, 119791.
- Fornell, C., & Larcker, D. F. (1981). *Evaluating structural equation models with unobservable variables and measurement error. Journal of marketing research*, 18(1), 39-50.
- Ghobakhloo, M., & Iranmanesh, M. (2021). *Digital transformation success under Industry 4.0: A strategic guideline for manufacturing SMEs. Journal of Manufacturing Technology Management*, 32(8), 1533-1556.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). *Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. European business review*.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). *The use of partial least squares path modeling in international marketing. In New challenges to international marketing. Emerald Group Publishing Limited*.
- Jamil, M. R., & Ahmad, N. (2009, December). *Present status and critical success factors of e-Commerce in Bangladesh. In 2009 12th International Conference on Computers and Information Technology (pp. 632-637). IEEE*.



- McMullen, J. S., & Shepherd, D. A. (2006). *Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur*. *Academy of Management review*, 31(1), 132-152.
- Nambisan, S. (2017). *Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship*. *Entrepreneurship theory and practice*, 41(6), 1029-1055.
- Ozaralli, N., & Rivenburgh, N. K. (2016). *Entrepreneurial intention: Antecedents to entrepreneurial behavior in the USA and Turkey*. *Journal of Global Entrepreneurship Research*, 6(1), 1–32.
- Perera, H.S.C., Mudalige, D.M., & Liyanage, C. (2011). *A Case Study of Technology Transfer Process in a Government Research Organization in Sri Lanka*. *Wayamba Journal of Management*
- Pinho, J. C., & Prange, C. (2016). *The effect of social networks and dynamic internationalization capabilities on international performance*. *Journal of World Business*, 51(3), 391-403.
- Sahut, J. M., Iandoli, L., & Teulon, F. (2021). *The age of digital entrepreneurship*. *Small Business Economics*, 56(3), 1159-1169.
- Satalkina, L., & Steiner, G. (2020). *Digital entrepreneurship and its role in innovation systems: A systematic literature review as a basis for future research avenues for sustainable transitions*. *Sustainability*, 12(7), 2764.
- Sebora, T. C., Lee, S. M., & Sukasame, N. (2009). *Critical success factors for e-commerce entrepreneurship: an empirical study of Thailand*. *Small Business Economics*, 32(3), 303-316.
- Sharma, S., & Rautela, S. (2021). *Entrepreneurial resilience and self-efficacy during global crisis: study of small businesses in a developing economy*. *Journal of Entrepreneurship in Emerging Economies*.
- SL e-commerce to hit US\$ 400 mn by 2022 (2018) Retrieved from <https://www.dailynews.lk/2018/09/07/business/161894/sl-e-commerce-hit-us-400-mn-2022>
- Spiegel, O., Abbassi, P., Zylka, M. P., Schlagwein, D., Fischbach, K., & Schoder, D. (2016). *Business model development, founders' social capital and the success of early stage internet start-ups: a mixed-method study*. *Information Systems Journal*, 26(5), 421-449.
- Standing, C., & Mattsson, J. (2018). *"Fake it until you make it": business model conceptualization in digital entrepreneurship*. *Journal of Strategic Marketing*, 26(5), 385-399.
- Valk, R., & Planojevic, G. (2021). *Addressing the knowledge divide: digital knowledge sharing and social learning of geographically dispersed employees during the COVID-19 pandemic*. *Journal of Global Mobility: The Home of Expatriate Management Research*.
- Van Alstyne, M. W., Parker, G. G., & Choudary, S. P. (2016). *Pipelines, platforms, and the new rules of strategy*. *Harvard business review*, 94(4), 54-62.
- von Briel, F., Recker, J., Selander, L., Jarvenpaa, S. L., Hukal, P., Yoo, Y., ... & Wurm, B. (2021). *Researching digital entrepreneurship: current issues and suggestions for future directions*. *Communications of the Association for Information Systems*, 48(1), 33.
- Zhao, F., & Collier, A. (2016). *Digital entrepreneurship: Research and practice*