

Digital transformation strategies for the sustainable growth of startups in Australia

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Abstract

The COVID-19 outbreak provided a glimpse of a future world in which digital interactions are critical, compelling organisations and individuals to increase their adoption of technology. Therefore, to gain a competitive edge, organisations need accurate, real-time responses from extensive data analysis to further develop their products and services or create entirely new business models. The rising dependence on technical services has created a gap between organisational offerings and objectives, especially for startups. Statistics reveal the high failure rate of startups in top-ranking countries such as the United States, Germany and Australia. A major reason for startup failure is a lack of business knowledge in the technical team, affecting the adaptability of the business with respect to technology. Australia is ranked eighth in the world in terms of its startup ecosystem because of its internal market dynamics and physical, commercial and legal infrastructure. Nevertheless, startup failure in Australia is significant. Therefore, this paper, based on desk research and an analysis of secondary data, presents digital transformation strategies aimed at reducing risks, creating sustainable business growth and providing a real-time view of business efficiency, resulting in reduced costs and improved performance.

Keywords: *Startups; digital transformation; big data; Australia; economy; sustainable business growth.*

1. Introduction

This research paper discusses the effect of digital transformational strategies on the sustainable growth of startups and the national economy. The paper provides an overview of the global startup market before focusing specifically on the Australian market. Given its internal market dynamics and physical, commercial and legal infrastructure, Australia ranks eighth in the world for startups (Statista, 2022).

The COVID-19 pandemic has compelled businesses across a wide range of sectors to provide online services, and consumers have become dependent on these services for their essential and non-essential needs. Under these new societal norms, business demand for cloud- and internet-based technologies is increasing (Hai, Van, & Thi Tuyet, 2021). The increasing adoption of digital solutions for existing services or operations across industries has boosted productivity (Osmundsen, Iden, & Bygstad, 2018). In 2022, the global digital transformation market was valued at US\$594.5 billion and is predicted to reach US\$1,548.9 billion by 2027, showing a compound annual growth rate (CAGR) of 21.1% over the forecast period (Statista, 2022). To gain a competitive edge, organisations need digital solutions to gain real-time responses from extensive data analysis to create new or enhance existing products and services or completely recreate their business models (Hai et al., 2021).

The increasing dependence on technical services has created a gap between organisational offerings and business objectives, especially for startups. A lack of business knowledge in the technical team can affect the adaptability of the organisation with respect to technology (Savey, Daradkeh, & Gouvela, 2020). Studies show that, globally, 90% of startups fail, with 20% failing in the first year, 30% failing within 2 years, and 50% failing within 5 years (Statista, 2022). The predominant reasons for startup failure include technological issues, lack of skills and poor financial capability (Savey et al., 2020).

The gap between business and technical knowledge means that potential technological solutions such as big data integration systems, open data analysis, public data mining, artificial intelligence (AI) and cybersecurity strategies offer no significant benefits for businesses (Hai et al., 2021). More research on the organisational need for such technological solutions is needed before technical services can be effectively provided (Sekongo, 2019).

Cybercrime involving the theft of sensitive client data and financial information has become a major risk for businesses (Statista, 2022). This has led to the increased demand for secure digital transformation solutions across various industries. Therefore, this paper

presents high-end digital solutions in the form of digital transformation strategies for startups to help improve efficiency and productivity, reduce operational costs and increase net profits through digitisation and automation. These strategies are aimed at reducing risks and creating a safer, healthier and more sustainable business with a real-time view of efficiency to reduce costs and improve performance.

This study is based on a desk research methodology in which data were gathered from recent research articles and statistical resources. These data reveal the impact of digital transformation on the global and Australian economies.

The remainder of the paper is structured as follows: Section 2 presents the statistics related to the global startup market, the success and failure rate of startups by country and the gaps in the Australian market; Section 3 discusses the e-services market in Australia; Section 4 presents digital transformation strategies for startups to ensure their sustainability; and Section 5 provides conclusions and recommendations.

2. Global Startup Market Statistics

According to data in figure 1, the United States (US) was the top-ranked country for startups in 2022, with a score of nearly four times (195.37) that of the second top-ranked country, the United Kingdom (52.56). These ranking are based on the country positive ecosystem and number of established startups. Australia ranked eighth, placing it strongly in the top 10 leading countries for startups worldwide.

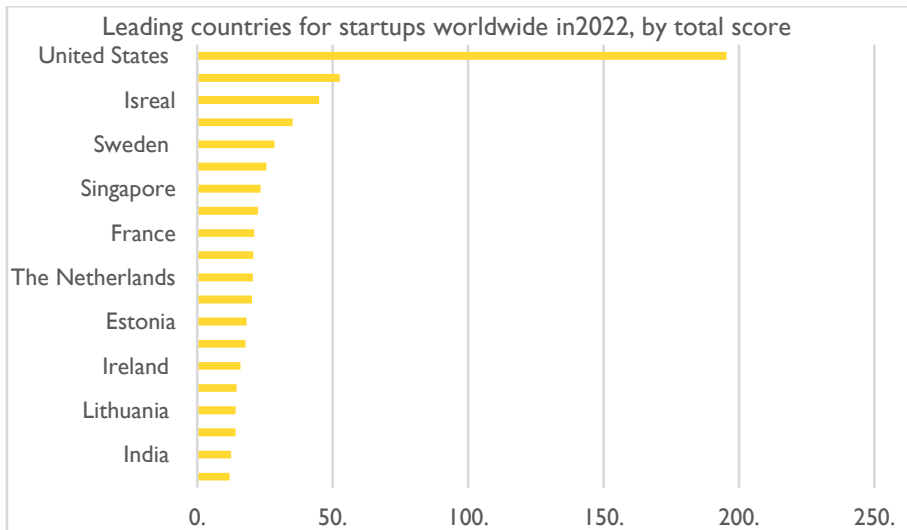


Figure 1: Leading countries for startups worldwide 2022, (Statista 2022).

Australia's strong ranking arises from its internal market dynamics and physical, commercial and legal infrastructure (Statista, 2022), which have strongly influenced its startup ecosystem and resulted in it becoming one of the first countries to establish startups.

2.1. Startup Success and Failure Rate by Country

Statistics show that startup failure rates are higher than success rates (see Table 1). South Africa has the highest startup failure rate at 86% and the lowest success rate at 14%, while Switzerland has the lowest failure rate at 65% and highest success rate at 35%. The US, Canada and France have similar startup failure and success rates of 80% and 20%, respectively. Australia, Germany and Estonia all have a 75% failure rate and a 25% success rate. These statistics show that startup failure rate is high in all top-ranked countries.

Table 1: Startup Success and Failure Rate by Country

Country	Startup Failure Rate	Startup Success Rate
United States	80%	20%
Canada	80%	20%
France	80%	20%
Germany	75%	25%
Switzerland	65%	35%
Estonia	75%	25%
South Africa	86%	14%
Australia	75%	25%

Source: CB Insights. (2023).

The most common reason for startup failure is a lack of product demand arising from a limited understanding of customer needs (Savey et al., 2020). Moreover, startups in the technological domain have high failure rates; for example, 80% of e-commerce, 75% of fintech, 80% of health technology and 60% of educational technology startups fail (CB Insights, 2023).

2.2. Gaps in the Australian Market

Challenges in the Australian startup market contribute to startup failure within the first 3 years. The primary reasons for startup failure include financing issues, finding the right talent and navigating the regulatory and legal environment (Expert-Market, 2023). Startups need to secure resources and implement cost-effective operations to minimise their financial obligations. Recruiting skilled people for startup teams can be costly; therefore,

outsourcing may be an effective way to collaborate with professionals at a lower cost. Navigating the regulatory and legal environment is challenging for startups in Australia, especially with respect to digital services and data security. Startup owners must understand the relevant laws and regulations pertaining to their online services and the potential implications of non-compliance. Therefore, startups should consult with technical business advisors to ensure their compliance with relevant legislation.

3. The E-Services Market in Australia

Revenue from the e-services market is predicted to reach US\$5.40 billion in 2023 and show a CAGR of 8.71% (2023–2027), resulting in a projected market value of US\$7.54 billion by 2027 (Statista, 2022). Figure 2 shows that revenue from the information technology (IT) services market is projected to reach US\$34.11 billion in 2023. The largest segment in the market is IT outsourcing, with a projected market volume of US\$12.07 billion in 2023. This revenue is expected to show a CAGR (2023–2027) of 7.06%, resulting in a market volume of US\$44.81 billion by 2027. The average spend per employee in the IT services market is projected to reach US\$2,470 in 2023.

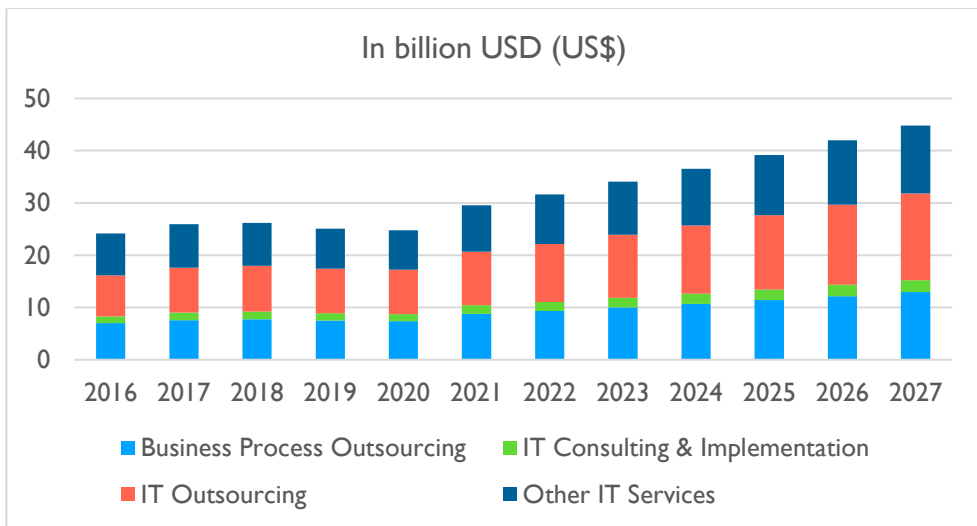


Figure 2: 3. The E-Services Market in Australia 2022, (Statista, 2022).

Online education and training are the largest segments in the market, with an expected revenue growth of 14.4% by 2024. The education and training sector provides educational services through preschools, primary and secondary schools, technical colleges, training centres and universities (Statista, 2022).

The growth of e-services and the dependence on big data with respect to consumer transactions and social media mean that startups face major challenges, which can lead to failure. Therefore, to grow their businesses sustainably, startups need the support of technology professionals (Hai et al., 2021). The following section presents digital transformational strategies for technology professionals to assist startups with sustainable business growth.

4. Digital Transformational Strategies for Sustainable Startup Growth

Digital transformation can enhance performance and reduce errors, saving time and effort. In addition, it increases the flexibility, convenience, collaboration and performance of organisational activities (Nguyen, 2020). Therefore, digital transformation has become essential for both small and large businesses to enhance their business processes and customer experiences to meet changing business requirements.

Startups are playing an increasingly important role in the Australian economy. With the growth in technology, cyberthreats and cybercrime have taken on new shapes in the form of next-generation ransomware, web attacks and others (Expert-Market, 2023). This paper presents digital transformational strategies for technology professionals who offer services to startups that require technological solutions for services such as online shopping, open and public data mining, shipping logistics, online systems, video conferencing, AI, virtual reality and interactive systems.

The business strategies presented in this paper are based on the need for high-end digital solutions, consultation and training. The primary objective is to provide startups with limited resources in the rapidly growing e-services and online business sectors with secure, cost-effective digital solutions to ensure sustainable growth and meet client needs. Startups seek digital solutions to create better products more quickly and at a lower cost (Savey et al., 2020). These solutions can help startups be more sustainable, data driven and compliant (El Hilali & El Manouar, 2019). Figure 3 illustrates various IT solutions that may be offered to startups to make the crucial first steps and confidently expand their businesses. These solutions include integrated platforms with advanced and cost-effective technological features to boost the customer base, training and consultation in digital services, cybersecurity and compliance with legislation, strong data encryption practices, the efficient deployment of resources to improve decision-making and reduce operational costs and the offering of digital service packages at prices that meet the startup's financial capabilities.

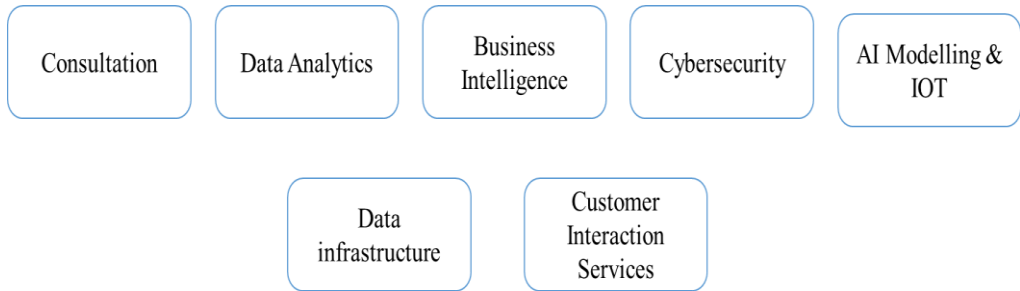


Figure 3: Services that may assist startups.

5. Conclusion

This paper has presented digital transformation strategies for technology professionals to assist startups with sustainable business growth and meeting client needs in the Australian market. Technology professionals can offer products and services such as training and consultation, data analytics, business intelligence, cybersecurity checks, AI modelling and systems, the Internet of Things, data infrastructure and customer interaction services to help startups find technological solutions for services such as online shopping, open and public data mining, social media analytics, video conferencing, AI, virtual reality and interactive systems (Hai et al., 2021). In addition, the paper presented strategies for technology professionals to assist startups to make the best possible use of IT, such as training and consultation in utilising digital services, applying secure digital solutions, managing cybersecurity systems and implementing strong data encryption practices.

The statistics presented in this paper reveal that startup failure rates are higher than success rates in leading startup countries. For example, the challenges faced by startups in the Australian market often lead to failure within the first 3 years. The main reasons for startup failure include financial issues, the lack of skilled people and an inability to navigate the regulatory and legal environment. These challenges have increased with the growth of e-services and the dependence on big data pertaining to consumer transactions and social media, contributing to the failure of startups across various sectors. Therefore, it is recommended that startups seek the help of technology professionals to grow their businesses sustainably. Studies have shown that the adoption of various advanced technologies such as AI, machine learning, the Internet of Things, blockchain technology and 5G have a positive effect on the market, resulting in the exponential growth of businesses across the globe (Hai et al., 2021). In addition, investments in the IT sector and the development of smart applications can lead to a significant increase in the adoption of big data and other related technologies. Therefore, to enhance the adoption of technology and utilisation of big data, it is critical to deploy simple, cost-effective, advanced digital

transformational strategies to promote the sustainable growth of startups and reduce the risk of failure.

References

- CB Insights. (2023). Retrieved from <https://www.cbinsights.com/>
- El Hilali, W., & El Manouar, A. (2019). Towards a sustainable world through a SMART digital transformation. In B. Abouelmajd & M. Ben Ahmed (Eds.), *Proceedings of the 2nd International Conference on Networking, Information Systems & Security* (pp. 1–8). New York, NY: The Association for Computing Machinery. <https://doi.org/10.1145/3320326.3320364>
- Expert-Market. (2023). Examining the top challenges faced by start-ups in Australia. Retrieved from <https://www.expert-market.com/examining-the-top-challenges-faced-by-start-ups-in-australia/>
- Hai, T. N., Van, Q. N., & Thi Tuyet, M. N. (2021). Digital transformation: Opportunities and challenges for leaders in the emerging countries in response to Covid-19 pandemic. *Emerging Science Journal*, 5, 21–36. <https://doi.org/10.28991/esj-2021-sper-03>
- Nguyen, T. A. (2020). Thúc đẩy chuyển đổi số tại Việt Nam [Promoting digital transformation in Vietnam]. *Vietnam Journal of Science and Technology*. Retrieved from <https://vjst.vn/vn/tin-tuc/3302/thuc-day-chuyen-doi-so-tai-viet-nam.aspx>
- Osmundsen, K., Iden, J., & Bygstad, B. (2018). Digital transformation: Drivers, success factors, and implications. Paper presented at the 12th Mediterranean Conference on Information Systems (MCIS 2018), Corfu, Greece. Retrieved from <https://aisel.aisnet.org/mcis2018/37>
- Ruby, D. (2023). *107+ startup statistics for 2023 (global facts and figures)*. Retrieved from <https://www.demandsage.com/startup-statistics/>
- Savey, L., Daradkeh, Y. I., & Gouvela, L. B. (2020). The success of startups through digital transformation. *International Journal of Open Information Technologies*, 8(5), 53–56.
- Sekongo, M. (2019). Digital: Transformation digitale, échec ou succès [Digital transformation, failure or success]. *Strat'Marques*. Retrieved from <https://stratmarques.com/digital-transformation-digitale-echec-ou-succes/>
- Statista. (2022a). Cybersecurity—Australia. Retrieved from <https://www.statista.com/outlook/tmo/cybersecurity/australia>
- Statista. (2022b). IT services—Australia. Retrieved from <https://www.statista.com/outlook/tmo/it-services/australia>
- Statista. (2022c). Leading countries for startups worldwide in 2022, by total score. Retrieved from <https://www.statista.com/statistics/1275240/leading-countries-startups-worldwide/><https://www.statista.com/outlook/tmo/it-services/australia>