DEVELOPMENT OF TRENDS OF ONLINE AND OFFLINE BUSINESS MANAGEMENT AND ASSESSMENT OF POSSIBLE PATHWAYS

TIEŠSAISTES UN BEZSAISTES UZŅĒMĒJDARBĪBAS VADĪBAS TENDENČU ATTĪSTĪBA UN IESPĒJAMO ATTĪSTĪBAS CEĻU NOVĒRTĒJUMS

Master's thesis in fulfilment of the requirements for the professional master in business management

ANOTĀCIJA

Maģistra darbs ar nosaukumu **"Tiešsaistes un bezsaistes uzņēmējdarbības vadības tendenču attīstība un iespējamie attīstības ceļi"**, kuru izstrādājusi **Sahitya Sharma**, pēta mainīgo uzņēmējdarbības modeļu ainavu un to ietekmi uz uzņēmumu darbības rezultātiem, ilgtspēju un konkurētspēju. Darbs sastāv no **67 lapām**, **32 tabulām**, **5 attēliem**, **122 literatūras avotiem** un **1 pielikumiem**. Tā mērķis ir identificēt tiešsaistes, bezsaistes un hibrīdo uzņēmējdarbības modeļu operacionālās atšķirības, kā arī izvērtēt, kā digitālā transformācija un ilgtspējas stratēģijas ietekmē finanšu noturību un ilgtermiņa dzīvotspēju.

Darba mērķis ir izpētīt, kā uzņēmumu vadības struktūras, ilgtspējīgas prakses un digitālie rīki ietekmē stratēģisko panākumu un konkurētspēju dažādos uzņēmējdarbības modeļos. Galvenie uzdevumi ietver operacionālo atšķirību analīzi, ilgtspējas ietekmes izvērtēšanu uz finanšu rezultātiem un digitālās transformācijas nozīmes izpēti uzņēmumu attīstībā. Pētījumu vada šādi pētniecības jautājumi:

- Kādas operacionālās atšķirības pastāv starp tiešsaistes, bezsaistes un hibrīdajiem uzņēmējdarbības modeļiem, un kā šīs atšķirības ietekmē uzņēmumu efektivitāti un darbības rezultātus?
- Kā ilgtspējīgas prakses integrācija ietekmē finanšu dzīvotspēju un uzņēmuma stratēģisko attīstību dažādos modeļos?
- Kāda ir digitālās transformācijas loma konkurētspējas uzlabošanā un kā uzņēmumi atšķiras digitālo rīku ieviešanā?
- Cik lielā mērā pašreizējie uzņēmējdarbības modeļi ir gatavi pielāgoties jauniem ekonomiskajiem, tehnoloģiskajiem un normatīvajiem izaicinājumiem?
- Kādi ieteikumi var palīdzēt uzņēmumiem uzlabot operacionālās prakses, finanšu noturību un ilgtspējīgas attīstības saskaņotību ar izvēlēto uzņēmējdarbības modeli?

Tēzes ietver trīs galvenos pieņēmumus:

- **Operacionālās atšķirības un uzņēmējdarbības sniegums**: Uzņēmējdarbības modeļa (tiešsaistes, bezsaistes, hibrīda) struktūra un vadība būtiski ietekmē galvenos darbības rādītājus, tostarp klientu iesaisti, izmaksu pārvaldību un resursu izmantošanu.

- **Ilgtspēja un finanšu dzīvotspēja**: Ilgtspējas prakses ieviešana ir pozitīvi saistīta ar uzlabotiem finanšu rezultātiem un uzņēmuma noturību visos uzņēmējdarbības modeļos.

- **Digitalizācija un konkurētspējas priekšrocības**: Efektīva digitālo resursu un attālinātās vadības tehnoloģiju izmantošana ir būtiska, lai saglabātu konkurētspēju mūsdienu digitāli virzītajā uzņēmējdarbības vidē.

Pētījuma metodoloģija balstās uz anketas aptauju, kurā piedalījās **105 respondenti** – uzņēmēji, vadītāji un speciālisti no dažādiem uzņēmējdarbības sektoriem. Dati atklāj būtiskas atšķirības operacionālajās praksēs, ilgtspējas ietekmē uz finanšu caurspīdību, kā arī digitālo rīku nozīmē uzņēmējdarbības stratēģijās. Rezultāti liecina, ka tiešsaistes uzņēmumi ir elastīgāki digitālo rīku ieviešanā, savukārt bezsaistes uzņēmumi saskaras ar ierobežojumiem, kas saistīti ar manuāliem procesiem un mazāku pielāgošanās spēju. Hibrīdie uzņēmumi bieži demonstrē potenciālu, bet cieš no integrācijas problēmām.

Ilgtspējas stratēģiju nozīme tika plaši atzīta, taču to ieviešanas vieglums un ieguvumu uztvere atšķīrās. Uzņēmumi, kas īstenoja ilgtspējīgas iniciatīvas, ziņoja par labāku finanšu pārskatāmību un stratēģisko fokusu. Vienlaikus tika atzīts, ka valdības atbalsta programmas bieži tiek nepietiekami izmantotas sarežģīto pieteikšanās procedūru un informācijas trūkuma dēļ.

Darba secinājumi norāda, ka digitalizācija un ilgtspēja nav tikai tendences, bet būtiski priekšnosacījumi mūsdienu uzņēmējdarbības panākumiem. Lai veicinātu šo pāreju, tiek ieteikts izstrādāt integrētas digitālās stratēģijas, piedāvāt praktiskas ilgtspējas apmācības un vienkāršot piekļuvi atbalsta mehānismiem. Tiek arī uzsvērts, ka hibrīdajiem modeļiem jāveido saskaņotas operacionālās struktūras, lai izvairītos no sadrumstalotības.

Pētījuma galvenās tēzes ir šādas:

Tēze 1: Operacionālās atšķirības ietekmē uzņēmējdarbības sniegumu

- Tiešsaistes, bezsaistes un hibrīdiem uzņēmumiem ir specifiskas iezīmes, kas ietekmē klientu apkalpošanu, izmaksu efektivitāti un loģistiku.

Tēze 2: Ilgtspējīgas prakses uzlabo finanšu dzīvotspēju

- Uzņēmumi, kas ievieš ilgtspējas stratēģijas, gūst labākus finanšu rezultātus, augstāku patērētāju uzticību un lielāku noturību.

Tēze 3: Digitālā transformācija ir būtiska konkurētspējai

- Stratēģiska digitālo rīku izmantošana ievērojami veicina uzņēmuma pielāgošanās spēju, inovāciju attīstību un konkurētspēju, īpaši hibrīdā vidē.

Šis darbs sniedz nozīmīgu ieguldījumu izpratnē par to, kā uzņēmējdarbības vadības modeļi var attīstīties, lai atbildētu uz mūsdienu ekonomikas, vides un tehnoloģijas izaicinājumiem. Tiek piedāvāti praktiski ieteikumi uzņēmējiem, politikas veidotājiem un pētniekiem, kas vēlas uzlabot uzņēmumu ilgtspēju un konkurētspēju mainīgajā vidē.

ANNOTATION

This master's thesis, "**DEVELOPMENT OF TRENDS OF ONLINE AND OFFLINE BUSINESS MANAGEMENT AND ASSESSMENT OF POSSIBLE PATHWAYS**" by **Sahitya Sharma**, investigates the dynamic future of business management models and their impact on performance, sustainability, and competitiveness. The thesis comprises **67 pages**, **32 tables**, **5 figures**, **122 references**, and **1 annexe**. It seeks to determine operational disparities between online, offline, and hybrid business models and identify how digital transformation and sustainability strategies impact financial resilience and long-term viability.

The research objective of the thesis is to investigate how operational models, sustainability processes, and digital technologies affect business firms' strategic success and competitiveness under varying management models. The main tasks include investigating variations in the operations of businesses, studying the effect of sustainability on bottom-line results, and assessing the impact of digital transformation on competitiveness. The research questions that guide the investigation are:

- What operational distinctions exist between online, offline, and hybrid business models, and how do these distinctions affect performance and efficiency?
- How does the integration of sustainability practices influence the financial viability and strategic direction of businesses, and does this differ across business types?
- What role does digital transformation play in enhancing competitiveness, and how do businesses vary in their adoption and use of digital tools?
- To what extent are current business models prepared to adapt to emerging economic, technological, and regulatory challenges?
- What recommendations can help businesses improve operational practices, financial resilience, and sustainability alignment based on their chosen model?

The thesis posits three hypotheses:

- **Operational Distinctions and Business Performance**: The structure and operation of a business model (online, offline, hybrid) significantly influence key performance outcomes, including customer engagement, cost management, and resource allocation.

- **Sustainability and Financial Viability**: The implementation of sustainability practices is positively related to enhanced financial performance and business resilience in all types of models.
- **Digitalization and Competitive Advantage**: Effective utilization of digital resources and remote management technologies is essential for sustaining a competitive advantage in today's digitally driven business landscape.

The methodology of research is grounded on a systematic questionnaire survey carried out involving **105 respondents** from business owners, managers, and professionals in multiple business domains. The data gathered reveal operational differences, the impact of sustainability on financial transparency, and the most significant implication of digitalization in contemporary business policies. The findings indicate that online companies are more nimble in embracing digital technology, whereas offline companies are hindered by manual systems and less adaptable infrastructures. Hybrid models tend to be promising but are plagued by integration issues.

Sustainability practices were generally recognized as being worth it, but ease of implementation and perceived value were quite different. Companies that embraced sustainable practices reported enhanced financial transparency and strategic intent. At the same time, most respondents identified that government assistance programs, though existing, tend to go underutilized due to cumbersome application processes and the absence of targeted outreach.

The thesis concludes that sustainability and digitalization are not only trends but are necessities for today's business success. To aid this shift, the thesis advises creating integrated digital strategies, providing applied sustainability training, and making access to support mechanisms easier. It also underscores the importance of hybrid models in building integrated operating structures that will prevent fragmentation.

The key theses formulated in the study include:

Thesis 1: Operational Distinctions Impact Business Performance

- Online, offline, and hybrid business models have distinct operational characteristics that affect performance, particularly in customer engagement, cost efficiency, and logistics.

Thesis 2: Sustainability Practices Enhance Financial Viability

- Businesses that implement sustainability strategies experience better financial clarity, stronger consumer perception, and increased resilience, regardless of model type.

Thesis 3: Digital Transformation is Crucial for Competitiveness

- Strategic use of digital tools significantly contributes to business adaptability, innovation, and market competitiveness, especially in hybrid environments.

This thesis contributes to a better understanding of how different business management models can evolve to meet modern economic, environmental, and technological demands. It provides practical recommendations for entrepreneurs, policymakers, and academics seeking to enhance the sustainability and competitiveness of businesses in a rapidly changing landscape.

ABBREVIATIONS, ACRONYMS AND SYMBOLS

df	Degrees of Freedom
Sig.	Significance (Statistical significance level)
N	Number (of valid cases)
%	Percent
.	Decimal point

Table of Contents

In order to remain compliant and ensure operational effectiveness, online companies use a range of tools aimed at streamlining operations, protecting data, and complying with

1. THEORETICAL OVERVIEW OF ONLINE AND OFFLINE BUSINESS MANAGEMENT PRACTICES AND RELATED ISSUES

Business organizations need to control material, fiscal, and human resources in an intelligent way by adapting to extremely changing market circumstances (Sviatnenko, 2020). Previously, corporate management depended very much on in-person contact and actual infrastructure planning. Nevertheless, with the innovation of digital technology, these paradigms have totally changed (Monge & Soriano, 2023; Pascucci et al., 2023). It has resulted in unique business operations both in the offline and online sectors, with opportunities and challenges that call for creative approaches (Kusmiyati & Priyono, 2021). Moreover, as sustainability becomes a core business imperative, contemporary practices are required to increasingly embrace environmental and social factors, an area which continues to require extensive exploration (Olson, 2006; Phusavat et al., 2018; Thun et al., 2024; Whitelock, 2019). This background sets the stage for the following discussion on operational differences and the research gap established through comparative assessment. Offline companies have long depended on brick-and-mortar locations and face-to-face human interaction, creating strong customer relationships and instant feedback (Zhao et al., 2022). Though this method provides customer services and local knowledge benefits, there are high costs of overhead to physical stores, inventory, and labor expenses associated with it (Pescow, 2024; Treece, 2024). Online companies make use of computerized platforms that allow them access to larger marketplaces with a higher degree of operational flexibility with lower overhead expense through efficient streamlined logistics and the use of fact-based decision making (Bowman, 2000). This transformation in business models is of particular importance in the current digital era, when customer behavior increasingly supports convenience and accessibility.

Business sustainability today goes beyond profit maximization to encompass environmental, social, and economic considerations. Ethical sourcing, low-carbon practices, resource efficiency, and circular economy approaches that enhance recyclability and longevity are key principles of sustainable supply chains (Ramanathan et al., 2023). Although there is extensive literature on sustainability practices, there has been limited comparative research on their application in online versus offline business contexts, and hence a strategic implications

gap remains. Researching the impact of digital transformation on sustainability initiatives and decision-making across various business environments is essential to tackling this problem.

Digital transformation also has an important function in reconceptualizing competitive advantage. By incorporating digital technology and remote management solutions in business processes, businesses improve agility, simplify communication, and obtain data insights in real-time (Miklošík & Evans, 2020; Pereira et al., 2022). Remote management solutions enable businesses to increase talent pools and promote cross-border cooperation (Truong, 2024). Even as digital transformation gains interest, most previous research tends to neglect its interface with traditional management structures and sustainability strategies. The aim of this research is to address that shortfall by exploring the ways in which digitalization enhances strategic objectives within the growingly hybrid business environment. This new context sets the stage for the research question and thesis statements driving the following analysis.

The main aim of this thesis is to explore and contrast the business operations, finance, and sustainability practices of online and offline companies, specifically with the intention of ascertaining the strategies that maximize business performance and maintain long-term sustainability. For this purpose, the study will answer some key objectives. First, it will contrast the management strategies adopted by online and offline companies to learn how each model operates and the particular strategies they adopt for success in operations. Second, the study will analyze the financial and revenue models of both business models, comparing the differences and issues each encounters in financial sustainability and expansion. Thirdly, the study will assess the practices of sustainability within both the offline and online worlds, examining how each model embeds sustainability in business processes. Fourthly, the study will aim to ascertain the most crucial factors that determine business performance across these different models, providing insights into the strategic decisions that lead to success within both realms. Finally, the study will offer practical suggestions on how to integrate sustainability in business operations and provide guidance to organizations keen to enhance their long-term sustainability.

According to these objectives, the thesis will explore several core research questions. The first question relates to the major operating differences between online and offline business models with the purpose of highlighting the unique challenges and advantages of each. The second question explores the ways in which cost structures and revenue models vary in online and offline businesses, achieving a deeper insight into their financial systems. The third

research question explores the influence of sustainability initiatives on the resilience and bottom line of business, whether sustainable processes enhance business model results. The fourth question investigates the role of digital transformation in strategic decision-making and business sustainability, exploring the impact of technology on modern business practices. Finally, the thesis will try to identify organizational best practices for sustainability both in the offline and online contexts and offer advice for practice that can guide firms seeking to remain competitive in an ever-evolving environment.

The research theme of this thesis is a comparison of managerial methods in virtual and real business models. The scope allows for a full understanding of the different management practices and operation systems used by firms in virtual and actual environments. The objective is to ascertain the strategic methods that result in success in both models and also to explore how sustainability is embedded in the strategies.

The research focus of this thesis is operational systems of modern companies that combine physical and virtual strategies. This entails examining how companies manage their operations across various contexts, such as how they structure their labor force, optimize resources, and incorporate sustainability strategies into their day-to-day operations. The research focus aims to illuminate the operational challenges and advantages that companies face in online and offline environments.

This study is based on the hypothesis that organizations that effectively integrate sustainability, leverage digital technology, and exploit operational contrasts offline and online enjoy improved operational effectiveness, financial viability, and competitiveness. The hypothesis suggests that businesses can enhance performance significantly by tying their operational initiatives to sustainability targets and digital evolution, enabling them to outshine in a dynamic business environment.

While this study makes valuable observations, the limitations of the study must be noted. Survey response styles, the rapidity of technological advancements in the digital environment, and heterogeneity of regional market dynamics might affect the external validity of observations. These limitations define the scope of the study and provide a benchmark to critically evaluate the research method and findings in following chapters.

This thesis adopts a quantitative approach to testing the main hypothesis rigorously and answering the research questions. The methods include primary data collection from structured

questionnaires to be administered among business managers and stakeholders in order to gather real-world experiences and insights. Secondary data analysis shall also be utilized through peer-reviewed scholarly journals, classic business management texts, and industry reports to supplement the primary data. Statistical methods such as descriptive statistics, regression analysis, and chi-square tests will be applied through SPSS to examine correlations between business activities, financial performance, and sustainability efforts. This robust methodological framework ensures the validity and reliability of the study's conclusions, giving a solid foundation for the subsequent chapters.

Thesis Statements

The competitive business environment is influenced by the intersection of the online and offline business models, sustainability shifts, and accelerated digital evolution. Main topics discussed in this thesis are:

1. Operational Distinctions and Business Performance: The distinct operational structures of online and offline companies have a profound influence on customer interaction, cost-effectiveness, and resource management, eventually influencing overall performance.

2. Sustainability and Financial Performance: Implementation of sustainability practices has a positive correlation with improved financial performance and business resilience.

3. Digitalization and Competitive Advantage: Strategic implementation of digital technologies and remote management solutions is imperative to ensure competitiveness in the modern business environment.

This thesis examines the evolution of online and offline business models, assessing potential ways of infusing sustainable practices into new businesses. With a mixed collection of sources of information—including academic works, business case studies, and questionnaires—the study is narrated in a three-dimensional report of present-day business challenges. Subsequent chapters will elaborate on this initial discussion further, reviewing relevant literature, defining the research process, elaborating on key findings, and providing strategic recommendations to firms and policymakers. This systematic approach enables thorough exploration of how sustainability and digital transformation influence business performance in the current dynamic context.

2. HISTORICAL OVERVIEW OF BUSINESS MANAGEMENT MODELS AND THEIR TRANSFORMATION PATHWAYS

Throughout the past few decades, there have been considerable changes in the running of businesses: these changes have been largely caused by technical developments and changing customer expectations. The management paradigms that were originally limited to physical locations and manual processes have been modified as a result of the advent of e-commerce and the digitalization of company activities. The purpose of this chapter is to provide a complete analysis of the important literature on traditional offline business management as well as the growth of e-commerce and online firms. The investigation of various business models sheds light on the ways in which management techniques have developed and adapted to new market conditions, opportunities generated by technology, and shifting customer behaviours.

2.1 Key differences between online and offline business management

Traditional offline business management pertains to the strategic and operational methodologies utilized by enterprises functioning in physical settings, including brick-and-mortar retail establishments, manufacturing facilities, and service-oriented firms (Nez, 2023). These enterprises are rooted in a concrete setting where direct client interactions, real products, and personal services are integral to the company concept. The fundamental components of conventional offline company management encompass personnel management, supply chain logistics, inventory control, and customer relationship management (Dona & Mohan, 2020; Stevens, 2020).

A fundamental trait of offline firms is their dependence on physical infrastructure, which shapes their operational strategies. Retail establishments, for instance, must uphold organized and aesthetically pleasing environments to attract and retain clientele, while manufacturing facilities need to enhance operational processes to ensure productivity and efficiency (Spanou, 2021). In this setting, efficient resource management becomes crucial as enterprises must meticulously oversee their physical assets—including infrastructure, equipment, and workforce—to sustain profitability. However, this physical dependence often imposes constraints on scalability, geographic reach, and flexibility, especially when compared to online business models (Bryant, 2015).

Furthermore, traditional offline businesses place a strong emphasis on personal relationships and direct contact with customers, a practice that is central to many offline business models. In industries such as retail and hospitality, customer satisfaction is closely tied to the quality of service delivered in person (Leinbach, 2023; Zhao et al., 2022). For many offline businesses, especially those selling luxury goods or specialized services, building close, personal relationships with customers is essential for differentiation and cultivating loyalty (Koraza, 2023). It's a key strategy for differentiation and cultivating loyalty. Customer service teams play a pivotal role in maintaining these connections by addressing complaints, offering individualized assistance, and promoting customer loyalty.

When it comes to supply chain management, offline companies would highly depend on transport, warehouses, and supply networks in their nearby or local environments (Lynch, 2024). Inventory management becomes extremely important here as finding the proper balance between supply and demand could be difficult under the limitations of physical storage as well as varied customer traffic patterns (Sinha, 2013). Moreover, offline companies tend to experience logistical problems like stockouts, transportation delay, and supply chain disruptions, all of which can have adverse impacts on profitability and customer satisfaction.

One of the most limiting aspects of offline enterprises is their geographically limited scope. Often, these enterprises are localized in the regional or local market they serve, with customers restricted to a specific commutable radius. This geographic restriction often leads to less rapid and more resource-intensive expansion compared to online equivalents (Zhang & Zhang, 2019). Venturing into new markets typically involves significant investments in physical infrastructure, including new stores or distribution facilities.

Aside from these operational issues, offline companies normally also depend on conventional advertising techniques to catch their customers' attention. Print adverts, billboards, and promotions made in-store are the usual practices, but they are more costly and less selective compared to the digital advertising practices of online companies (Hylewski, 2024). Although the conventional practices work, they tend not to have the accuracy and cost savings that digital marketing offers.

In summary, conventional offline business operations are considerably based on physical activities, interpersonal contact with consumers, and region-specific supply chains. Although the businesses provide personal relationship-building and in-person experiences opportunities,

they tend to have limited scalability, flexibility, and geographical reach compared to the enhanced capabilities of online business models.

2.2 Rise of E-Commerce and Online Businesses

The emergence of e-commerce and online enterprises has ushered in one of the most profound shifts in the business world over the past few decades. E-commerce, characterized by the online buying and selling of goods and services, has deeply transformed conventional business operations by empowering businesses to access global markets, simplify operations, and reduce the cost of operation (Hylewski, 2024). The arrival of the internet during the 1990s signified the dawn of the digital revolution, which brought with it a new business model that enables businesses to operate without a physical store. This has radically changed the way goods and services are promoted, sold, and delivered to consumers.

One of the most important benefits of online business management is the potential to access a wider and more diverse consumer base. In contrast to offline businesses that are usually limited by geographical location, online businesses can access customers globally. This scalability is providing immense opportunities for growth to those companies who are adept at managing digital platforms and logistics well (Roy, 2023; Yates, 2015). As such, the majority of conventional physical brick-and-mortar stores either went online or adopted mixed models, demarcating the line between physical and virtual services in order to cater to the altered demands of their customers. Beyond this, e-commerce has made a complete U-turn in terms of how the companies interact with their consumers. Digital tools such as data analytics, social media, and customer relationship management (CRM) software allow organizations to gather and study large amounts of data on customer habits and preferences (Devarakonda et al., 2020).

This data-driven approach enables firms to personalize interactions, tailor marketing campaigns for specific groups, and refine pricing plans. Unlike traditional offline businesses, which depend a great deal on interpersonal interactions, online businesses can leverage algorithms and automation to deliver personalized experiences to large customer segments (Hilton et al., 2020).

Another area where the shift to online business has had a profound impact is supply chain management. Highly networked and streamlined digital supply chains are vital to the success of online businesses, especially in e-commerce enterprises (Devarakonda et al., 2020).

Transnational in scope, these supply chains utilize advanced transportation networks, drop-shipping tactics, and real-time inventory management software. Kuptsova, (2023), has pointed out, the ability to automate processes such as reordering, inventory tracking, and shipping monitoring has made online businesses run better and more inexpensively than traditional offline equivalents.

Still, running an online business has its own set of problems. The most important problem is the requirement of strong cybersecurity measures to secure customer information and keep online transactions secure. In light of rising instances of data breaches, online businesses must spend on secure websites and adopt effective data protection measures (Guido et al., 2010). Also, the comparatively lower entry barriers to the digital marketplace imply that web businesses tend to experience high competition. In order to remain ahead, businesses are required to continuously innovate and alter their strategies so as to counter the rapid technology developments in the digital world.

Another challenge faced by online businesses is maintaining customer satisfaction in the absence of in-person interactions. While online businesses offer convenience and accessibility, industries such as luxury goods, healthcare, and hospitality—where personal service and customer relationships are key—may struggle to replicate the in-person experience that many customers value (Kabango & Romeo, 2015). To mitigate this, many online companies invest heavily in customer service, offering live chat, virtual assistants, and detailed FAQ sections to assist customers.

The evolution of marketing techniques is another significant shift caused by e-commerce. Digital marketing methods like search engine optimization (SEO), pay-per-click advertising, social media marketing, and email marketing are now primarily used by online companies (Moteria, 2023). These processes provide a degree of accuracy and affordability that is not possible for offline marketing processes. For instance, businesses can target specific customer segments based on demographic information, behavior, and interests, optimizing their marketing budgets and improving conversion rates (Fomby, 2023).

The growth in e-commerce has also resulted in new business models emerging, for instance, platform-based economies, digital marketplaces, and subscription-based services. Companies such as Amazon, Alibaba, and Shopify have further made e-commerce wider in scope through establishing platforms whereby other companies are enabled to offer their

products and services online (Mansor et al., 2018; Papathomas & Konteos, 2023). These websites have further increased the reach of e-commerce, allowing even small businesses to reach global markets.

In short, the emergence of e-commerce and online enterprises has transformed classic corporate management by giving businesses the leverage to scale up operations, minimize overhead costs, and make decisions based on data. That said, while online enterprises offer numerous benefits, e.g., accessibility across the globe and operational efficiency, they also have some specific challenges that they need to overcome, e.g., cybersecurity issues and the imperative of continuous innovation. As technology becomes more advanced and digital, organizations need to remain flexible and flexible in order to succeed in the rapidly changing digital world.

The traditional offline business management literature and the evolution of e-commerce provide useful information regarding business transformation as a result of technological advancements and shifting market forces. While traditional offline businesses are good for personal relationships with customers and physical operations, they are not scalable and less flexible. Conversely, digital-platform-powered online businesses can serve global markets and maximize operations, subject to the hurdles of managing competition as well as cybersecurity threats. In order to thrive in today's globalized world, companies need to know both the advantages and disadvantages of each model, as exemplified in Table 2.1 below.

Table 1.1

Overview of the gains and limitations associated with both traditional offline and online business models

Aspect	**Traditional Offline Business Management**	**Online Business Management**
Gains		
Customer Relationships (Okoli, 2007)	Strong, personalized customer relationships through face-to-face interactions	Large-scale customer personalization via data analytics and automation

Brand Loyalty (Sanders, 2025; Strauss & Frost, 2005)	In-person service helps build customer loyalty, especially in luxury markets	Wider market reach builds brand presence, especially with targeted ads
Inventory Management (Rao & Nayak, 2017)	Can tightly control physical inventory for local demand	Real-time inventory tracking and automation improve efficiency
Local Market Focus (Rao & Nayak, 2017)	Focus on local customer needs, fostering strong local brand identity	Global customer reach and greater market diversification
Marketing (Sari et al., 2021; Soni, 2020)	Physical advertising (e.g., print, in-store promotions) builds local brand awareness	Cost-effective digital marketing (SEO, social media) for targeted reach
Losses		
Scalability (Blazheska et al., 2020)	Limited scalability due to reliance on physical locations	Highly scalable but requires substantial initial tech and logistics setup
Geographic Reach (Huang et al., 2017)	Limited to local or regional markets	Global reach, but subject to international regulations and logistics costs
Operational Costs (Mahmoud, 2020).	Higher fixed costs for physical space, inventory, and personnel	Lower fixed costs, though shipping and fulfilment costs can be high
Customer Service Limitations (Galdolage, 2021)	Limited to working hours and in-person interactions	Lack of in-person service can be challenging for industries needing personal interaction
Inventory Flexibility (Moore, 2021)	Dependent on physical storage space	High flexibility with automated systems, though vulnerable to cyber risks
Competitive Pressure (Shajrawi & Khan, 2020)	Local competition within geographic limits	High competition in global market with lower barriers to entry

Security Concerns (Chu, 2024)	Lower digital security risk, focus on physical security	High cybersecurity needs to protect customer data and prevent breaches

Source: author's construction

2.3 Understanding the Differences Between Online and Offline Business Management

The general difference between online and offline business management comes down to the operational structures, customer interactions, and resource management strategies applied by each category of business model. Offline businesses have conventionally been run through brick-and-mortar outlets, where physical proximity and face-to-face communication are essential for business operations (Zhao et al., 2022). These firms are based on direct interaction with customers and thus always create customer-based services and close community ties (Vernuccio et al., 2021). Management of any offline firm is really concerned with logistics, workforce management, and physical infrastructure building but has to conform to the local market's conditions, which can vary significantly across areas (Greenwald & Kahn, 2005).

Contrary to this, online businesses are mostly operated on digital platforms, which allow them to access international markets with a much lower cost of overheads (Baako & Umar, 2020). These businesses rely much on technology to interact with customers, market their products, and conduct transactions, so digital infrastructure is crucial for their success. By eliminating most physical limitations, including geographical limitations, online businesses can grow exponentially. Nevertheless, running an online business comes with specific challenges, such as the necessity for strong cybersecurity practices, efficient digital marketing tools, and ongoing technological advancements (Baako & Umar, 2020). Further, online businesses have to cope with a very competitive and changing marketplace, defined by rapid changes in consumer trends and international competition.

One of the main operational differences between offline and online businesses is how customers are interacted with. Offline businesses provide more personalized and instant customer care, enabling customer loyalty through direct interaction. Online businesses, in contrast, use digital marketing and data analysis to analyze consumer behavior and tailor experiences (Zhao et al., 2022). Although this method enables scalability, it also necessitates high technology and system investment to properly monitor, analyze, and act on customer data.

Supply chain management also underscores the contrast between business operations online and offline. Offline businesses have traditionally depended on conventional supply chains with local or regional suppliers, warehousing, and manual logistics management (Kusmiyati & Priyono, 2021). Conversely, internet-based companies employ coordinated digital supply chains that cross global borders, making use of strategies like just-in-time stockholding and drop-shipping to cut costs on storage and enhance delivery speeds (Zeng et al., 2020). Though this worldwide outreach offers possibilities, it comes with challenges of adapting to global trade rules, having intricate networks of logistics, and providing cybersecurity for online transactions.

The management needs of online and offline companies also require varying skill sets and strategic frameworks. Offline businesses must maximise physical capacity, provide outstanding customer service, and implement location-based marketing solutions. Online businesses must maximise technological infrastructure, digital marketing solutions, and worldwide logistics. All these differences are critical for awareness by businesses transforming between or into both models through a hybrid scheme (Soni, 2020).

2.4 Exploring Tools and Strategies for Sustainable Management in Both Environments

Global problems, such as climate change, resource depletion, and growing consumer demand for social and environmental responsibility, have made sustainability in business administration a choice no more but a necessity (Ikerd, 2024). A company's long-term existence is increasingly reliant on the extent to which it is serious about the question of sustainability, whether online only, offline only, or both. This section tries to analyze the instruments and mechanisms that companies can adopt in order to achieve sustainable operation management in offline as well as online environments.

Offline businesses, in offline settings, have certain sustainability challenges related to the use of resources, waste, and energy consumption. In order to fight their environmental impact, offline companies must focus on strategies such as the implementation of clean energy sources, waste minimization through circular economy, and supply chain optimization for low carbon emissions (Nyamekye et al., 2023). Such tools as Environmental Management Systems (EMS) and guidance on sustainability reporting, like the Global Reporting Initiative (GRI), are

required to report and monitor environmental performance and help businesses reconcile regulatory requirements and stakeholder expectations (Liu et al., 2023).

Offline business sustainability also calls for social sustainability to be considered, which is making sure there is fair labor practices, community relationship, and equal opportunity for everyone (Qalati et al., 2023). Offline businesses, particularly manufacturing and retail businesses, must make sure that there are responsible production and sourcing policies to ensure that there is no exploitation of resources and labor, as well as depletion of local resources. Strategies with local stakeholders, promoting the health of employees, and maintaining open communication are the keys to creating long-term value through sustainability (Mamun, 2021).

Online businesses, on the other hand, have unique sustainability challenges that include global supply chains, data handling, and digital infrastructure. The environmental footprint of cloud-based business and data center power consumption are among the biggest concerns for online businesses (Moghrabi et al., 2023). In order to reduce their carbon footprints, online companies must improve server efficiency, investing in renewable energy for data centers, and making IT infrastructure more energy efficient. Energy monitoring systems and carbon management tools enable companies to track and reduce their digital carbon footprint (Iluyomade & Okwandu, 2024).

In addition, online businesses enjoy the benefit of leveraging data analysis to create more sustainable business choices. Through customer behavior and supply chain data analysis, businesses can optimize stock, avoid wastage, and reduce transportation emissions (Bar-Gill et al., 2024). Moreover, virtual platforms offer the stage for online businesses to embrace circular economy practices through facilitating product reuse, recycling, and refurbishment (Rao & Nayak, 2017).

Social sustainability is also as important to online businesses. Despite the global nature of the online environment, businesses must ensure that their labor practices and supply chains are on par with moral standards. Online businesses, for example, must examine their suppliers in order to determine compliance with labor and environmental regulations, particularly when they deal with countries where regulations are more lax. Additionally, with growing fears over data security and privacy, online companies need to ensure the safeguarding of customers'

information, meeting the increasing demand from customers for secure and transparent data handling practices (Chaudhary, 2017).

Finally, hybrid sustainability practices can yield significant benefits to businesses that both have online and offline operations. As businesses continue to blend physical and digital operations, it is necessary to incorporate sustainable practices in all aspects of their business. Omnichannel companies, for instance, can reduce their carbon footprint by optimizing delivery routes, using energy-efficient packaging, and offering consumers the option of local pick-up over distant deliveries (Saura et al., 2020). By combining the strengths of both digital and physical channels, organizations can create more robust and sustainable operations.

In short, differences between online and offline business management refer to the different strategies necessary to survive in each environment. Sustainability in every business model is widespread nonetheless. By accepting tools and strategies aligned with their business environment, businesses can avert the challenges of modern business management at the same time contribute to a sustainable future. Understanding these differences and using proper sustainability tools will enable firms to be sustainable in the long run while creating desirable environmental and social effects.

2.5 Sustainability in Business and emerging strategies

Business sustainability has emerged as a critical aspect of contemporary management, focusing on the incorporation of environmental, social, and economic considerations into business activities. The chapter presents an overview of sustainability in the business world, outlining strategies that businesses can adopt in order to ensure sustainable management. The significance of sustainability in maintaining long-term business sustainability and in supporting the welfare of society is examined using existing literature.

By definition, business sustainability involves running a business in a way that proves profitable in the long run as well as causing least damage to society, the economy, and the environment (Elkington, J., 1994). The model is typically described through the triple bottom line approach, which emphasizes three pillars: environmental protection, social responsibility, and economic profitability (Elkington, J., 1997). This model emphasizes the principle that companies have to go beyond their economic bottom line and consider the broader impact of their operations on people and the planet.

Ecologically, sustainability involves reducing the harm businesses cause to the environment through saving resources, reducing waste, and avoiding pollution (Rowley et al., 2012). Socially, sustainability involves treating employees, customers, and communities in a fair manner, encouraging diversity, ensuring ethical business, and encouraging community engagement (Chen, 2014). Economic sustainability guarantees continuous financial health for a business, allowing it to invest in long-term growth and resilience.

Brundtland, G.H., (1987) initially defined sustainable development as fulfilling the needs of the present without impairing the capacity of future generations to meet their own needs. This definition highlighted the importance of balancing short-term business profits with long-term environmental and social concerns. Over time, businesses have recognized that adopting sustainable practices not only benefits society but also enhances their competitiveness. Utilization of sustainable tactics can decrease cost of operations, enhance corporate reputation, as well as build relationships with stakeholders (Wadhwa & Professor, 2023).

Rising regulatory demands, growing demand from customers for sustainability, and increased investor attention to ESG factors even further compel enterprises to embrace sustainability (Abdi et al., 2020). Governments imposing tighter green laws, e.g., curbs on carbon output, obligate companies to innovate and evolve into more environmentally friendly models. Customers also prioritize more eco-friendly firms, while investors consider such firms as a lower-risk and long-term proposition.

Here, sustainability has shifted from a sidelines concern to mainstream business strategy. Green management practices not only reduce the footprint of businesses on the environment but also enhance social welfare as well as long-term economic health. Businesses can follow many different strategies for achieving sustainability, such as enhancing energy efficiency, adopting principles of circular economies, and streamlining supply chain management.

2.5.1 Key Sustainable Management Practices

Energy Efficiency and Resource Management:

The most prevalent sustainable management strategy is to enhance energy efficiency. Through the use of energy-saving technology, optimizing resource utilization, and minimizing wastage, companies can reduce their environmental footprint substantially (Comin et al., 2019). To illustrate, companies can replace old equipment with energy-efficient ones, use renewable

power sources, and install energy management systems to track and maximize energy utilization. These efforts, in addition to reducing carbon emissions, also reduce operating costs, leaving companies with a win-win situation. Big players in the tech industry like Apple and Google have invested heavily in clean energy, powering their data centers with green power and significantly reducing their carbon footprints (Wang et al., 2022).

Resource management is also a critical area of sustainability. Companies are increasingly focusing on reducing water usage, minimizing material waste, and maximizing the utilization of natural resources in production. These are particularly relevant to industries that are heavily resource-dependent like manufacturing and agriculture, where conserving resources can make a significant environmental impact.

Circular Economy Practices:

The circular economy is concerned with reusing, recycling, and regenerating goods to prevent waste and conserve resources. Contrary to the linear economy's conventional "take-make-dispose" model, the circular economy keeps products and materials in use as long as possible. This allows companies to reduce waste, drive down production cost, and create new revenue by recycling and reselling products. Patagonia and IKEA are some of the brands which have embraced circular economy values in the form of repair centers, recycling programs, and products with recycled content. Circular economy practices can be successful only when firms redefine their production process in such a way that products should be long-lasting, repairable, and recyclable (Bressanelli et al., 2020).

Sustainable Supply Chain Management:

Environmental supply chain management involves integrating environmental and social considerations in every link of the supply chain, from the procurement of raw materials to the end supply of finished products. Companies can reduce their footprint on the environment by selecting sustainable suppliers, lowering emissions due to transportation, and streamlining logistics to conserve energy. For instance, Unilever's Sustainable Living Plan aims to have 100% of its farm raw materials sustainably sourced, working with suppliers to drive ethical working practices and reduce environmental footprint. Sustainable supply chain management also means cutting waste, notably through the implementation of sustainable packaging solutions, like biodegradable or reusable ones, as a response to consumer pressure and regulatory focus (Bhardwaj, 2016).

Stakeholder Engagement and Corporate Social Responsibility (CSR):

One of the most important components of sustainable management is stakeholder engagement, which involves companies taking into consideration the concerns and interests of a diverse group of stakeholders such as employees, customers, suppliers, communities, and investors. The involvement of stakeholders in sustainability efforts enables companies to recognize possible risks, enhance decision-making, and establish confidence within the communities they operate in. One way that companies can show their commitment to sustainability is through Corporate Social Responsibility (CSR) initiatives, which tackle social and environmental issues, such as engaging with local communities, enhancing diversity, and minimizing environmental footprints (Carroll, 1991).

CSR programs not only promote the reputation of a company but also bring in socially responsible consumers and build good relationships with employees and society. Brands such as Starbucks and Ben & Jerry's have established themselves based on CSR, emphasizing fair trade, social justice, and environmental sustainability. Their success indicates that businesses can perform well economically while contributing positively to society and the environment (Rhodes et al., 2014; Svensson et al., 2018).

Business sustainability is no longer an option but a requirement in the current world economy. As regulators, consumers, and investors exert more pressures, companies need to adopt approaches that reduce their adverse effects on the environment, make positive contributions to society, and maintain economic stability in the long term. Approaches such as energy efficiency, circular economy strategies, sustainable supply chain management, and stakeholder engagement assist companies in being sustainable while retaining their competitive advantage. Besides contributing to social and environmental well-being, these approaches present companies with substantial advantages such as cost savings, improved brand image, and minimized risks. The following table 2.2 illustrates the comparison of the forthcoming sustainable business strategies covered in terms of corresponding criteria for effective understanding.

Table 2.2
Comparing the emerging sustainable business strategies discussed, using relevant criteria for effective comprehension

Sustainability Strategy	Primary Focus	Key Benefits

Energy Efficiency and Resource Management (Wang et al., 2022)	Reduction of energy and resource consumption	Reduces operational costs and carbon emissions
Circular Economy Practices (Bressanelli et al., 2020)	Recycling, reuse, and product life extension	Lowers waste, reduces material costs, new revenue streams
Sustainable Supply Chain Management (Bressanelli et al., 2020)	Environmental and social compliance in supply chains	Reduces risk, enhances brand reputation, meets regulatory demands
Stakeholder Engagement and CSR (Rhodes et al., 2014; Svensson et al., 2018)	Engaging stakeholders, community support	Builds trust, improves brand loyalty, risk mitigation

Source: Author's construction

2.5.2 Achieving sustainable balance between both business models

The second question of research addresses how organizations may integrate sustainable principles into online and offline models. Sustainability is more and more accepted as a determining factor for economic success in the long term, not only in order to lower environmental harm but also to comply with consumer and regulatory expectations (Elkington, 1998). Embedded sustainability in business strategy has become more important because consumers and governments more and more expect responsible and transparent business conduct.

For offline companies, sustainability usually means the maximization of resource utilization, waste reduction, and the use of environmentally friendly production techniques. Offline companies can embrace sustainability by embracing renewable energy sources, minimizing the use of resources, and performing waste reduction activities in their operations in the physical sense (Nyamekye et al., 2023). Besides, companies can participate in corporate social responsibility (CSR) activities to help their communities, for instance, by building up their local economies and offering equitable work conditions (Chen, 2014).

However, online companies have a particular set of problems concerning sustainability. Their digital operation, including data centres and overseas shipping, is possibly power-hungry, although typically smaller in terms of its physical arrangements. Companies are able to use green information technology practice to achieve sustainability in their online business models

(Comin et al., 2019). Some of these practices include data storage and server optimization, as well as minimizing energy consumption in e-commerce logistics. Moreover, most online businesses are embracing circular economy models, which promote recycling and reuse of products through digital platforms. Regardless of the fact that any company works within the real or virtual world, the objective of this research is to determine best practices and actions, which would help in an even more sustainable business climate. This will be done by knowing how sustainability is integrated into the business models.

2.6 Differences Between Online and Offline Business Management

The fast pace of the evolution of digital technology has revamped how companies are operated, leading to new customer engagement and management models. Off-the-shelf as well as online business models are very different when it comes to customer interaction as well as infrastructure, consequently shaping overall business strategy. Sensitivity to these differences offers valuable advice on how companies can leverage the respective advantages of their models in order to stay competitive and active.

2.6.1 Operational Differences

Infrastructure Requirements (Physical versus Digital)

Perhaps the most glaring distinction between offline and online business models is their infrastructural needs. Offline businesses, or brick-and-mortar stores, demand a lot of physical infrastructure, such as storefronts, warehouses, distribution centers, and point-of-sale equipment. These physical assets are necessary for delivering in-person customer interactions and product access. For example, a retail business depends on strategically placed locations to attract foot traffic and provide a physical shopping experience, including inventory management through on-site warehouses However, maintaining these resources comes with significant fixed costs, such as rent, utilities, and staffing (Dimitriu & Matei, 2014).

In contrast, online businesses operate within a digital ecosystem that relies on virtual infrastructure. This includes websites, e-commerce platforms, cloud storage, cybersecurity systems, and data analytics tools, which enable the sale of products and services without physical locations (Kusmiyati & Priyono, 2021). As a result, online businesses typically face lower overhead costs compared to traditional businesses. E-commerce giants like Amazon and

Alibaba have capitalized on digital infrastructure to reach global markets with minimal investment in physical stores (Dai & Uden, 2008).

These differences in infrastructure also affect supply chain management. While traditional businesses often operate localized supply chains, constrained by geographic boundaries, online businesses benefit from integrated digital supply chains that support broad distribution networks. The infrastructure of online businesses is designed to handle large data volumes, secure transactions, and efficient delivery across various regions, underscoring the need for sophisticated logistics systems (Bhatt, 2024).

Management of Customer Interaction and Relationships

Customer relationship management is vital to both online and offline business models, though each model addresses it differently. Offline businesses focus on direct, in-person engagement, where customer service personnel play a crucial role in providing personalized service, building loyalty, and addressing customer needs quickly. This model is especially important for luxury retail and service-oriented businesses, which rely on face-to-face interactions to create a unique brand experience and foster trust (Poniščiaková & Kicová, 2021).

On the other hand, online businesses depend on digital tools and data analytics to manage customer relationships. E-commerce sites use live chat, auto-responses, and online marketing tactics to communicate with customers across touchpoints. Online companies leverage behavioral data to tailor customer experiences through customized recommendations, behavioral emails, and ads. Although the tactic is less intimate than face-to-face communication, it allows companies to scale customer relationships (Binjaku et al., 2014).

Successful online interaction necessitates robust cybersecurity to safeguard customer information and foster trust. With more online transactions, organizations have adopted safe websites, and open data policy, to overcome privacy concerns. Offline businesses, however, have experienced less cyber threat but should ensure that their offline environments are secure and welcoming.

Both models present unique challenges. Offline businesses get direct contact but lack the data-informed information available to online businesses, making it harder to properly target customer segments. Online businesses, having the capacity to reach customers in bulk, must

overcome the difficulty of establishing authentic relationships without direct contact. These days, most firms employ hybrid models that combine digital tools and physical spaces or provide in-person assistance for online shopping.

Briefly, there are operational differences between offline and online companies that include infrastructure and customer engagement models. Offline companies rely on tangible assets and personal interactions, while online companies take advantage of intangible infrastructure and data analysis. Through an understanding of these distinctions, companies are able to tailor their strategies in order to tap the advantages of both models and adapt to an ever-changing marketplace.

In short, operational variations between offline and online businesses are seen in infrastructure and customer engagement strategies. Offline businesses are based on physical assets and face-to-face interactions, whereas online businesses leverage digital infrastructure and data analytics. By grasping these differences, businesses can refine their strategies to leverage the strengths of each model and evolve with a changing market landscape.

2.6.2 Financial management

The cost management practices of internet as well as traditional businesses are also very different, driven by differences in cost models as well as revenue streams. Familiarity with such differences is essential for business managers to make fact-based decisions corresponding to their operational goals and market forces.

Expenditures in Digital versus Traditional Environments

Offline and online business structures have different costs because the different operating requirements of the two models vary. Offline businesses have high fixed costs in terms of physical assets like property, utilities, and maintaining retail space. In high-traffic locations like shopping malls or city centers, these costs can be high. Offline businesses also generally need to employ larger teams to manage in-store operations, customer interactions, and inventory, which adds to labor costs (Kuhn & Yu, 2020).

In contrast, online businesses benefit from lower physical infrastructure costs, as they do not require retail locations or extensive on-site personnel. However, they must invest heavily in digital platforms, including website development, cybersecurity, data storage, and digital

marketing.T echnology-related expenses are variable, but essential for maintaining competitiveness in the digital marketplace (Baschab & Piot, 2012; Howarth, 2024).

One of the significant expenses for online businesses is logistics and shipping, which can account for a large portion of operational costs. Unlike brick-and-mortar stores, where customers bear the responsibility of transporting purchases, e-commerce businesses often absorb shipping costs, which vary based on distance, delivery speed, and item size. Some online retailers offer free shipping as a competitive strategy, though this raises costs. To mitigate these expenses, many online businesses strategically place warehouses in key locations and partner with third-party logistics providers (Lara & Wassick, 2023)

Comparative Analysis of Revenue Models in Digital and Traditional Environments

Revenue generation strategies differ between online and offline businesses due to their distinct customer engagement methods, sales channels, and value propositions. Offline businesses primarily earn revenue through in-person transactions, where customers physically assess products and make purchases influenced by the in-store experience. Factors such as store location, in-store promotions, and seasonal foot traffic play a significant role in revenue generation. Offline businesses often use traditional marketing techniques like print ads and billboards to attract customers (Kim, 2021).

In contrast, online businesses generate revenue through a variety of digital channels, including direct online sales, subscription services, and affiliate marketing. E-commerce companies use data analytics to refine marketing efforts, improving conversion rates and fostering customer loyalty. For instance, platforms like Amazon and Alibaba use recommendation algorithms to increase sales by aligning with customer preferences. Online businesses benefit from the ability to access global markets, overcoming geographic limitations.(Yeh & Kuo, 2019)

Additionally, many online businesses leverage subscription models for steady revenue, offering services like streaming, cloud storage, or exclusive content. Some platforms also earn income through affiliate marketing or advertisements, where they receive commissions for driving traffic or sales to other companies' websites. These strategies provide a diversified and scalable approach to revenue generation.(Balseiro et al., 2017)

The financial management strategies of online and offline businesses highlight key distinctions in cost structures and revenue models. Traditional businesses face higher fixed costs but benefit from direct customer interactions that enhance in-store sales. Online businesses enjoy lower physical infrastructure costs but invest heavily in technology and logistics. Their revenue models often leverage diverse digital channels, enabling them to reach a global audience and scale more efficiently. Following table 2.1 shows the key operational and financial difference between online and offline business models based on the detailed analysis provided in the chapter understanding of these distinctions allows business leaders to customize their financial approaches to enhance profitability within their specific frameworks.

Table 2.3

key operational and financial differences between online and offline business models based on the detailed analysis provided in the chapter

Aspect	Offline Business Management	Online Business Management
Infrastructure Requirements (Dimitriu & Matei, 2014)	Requires physical infrastructure, such as storefronts, warehouses, and point-of-sale systems.	Operates in a digital ecosystem, relying on websites, e-commerce platforms, cloud storage, and cybersecurity.
	Significant fixed costs for rent, utilities, and maintenance of physical locations.	Lower fixed costs due to absence of physical stores, but high investment in technology and platform maintenance.
Customer Interaction & Relationships	Relies on in-person customer engagement, personalized service, and face-to-face communication.	Uses digital communication tools (e.g., live chat, email) and data-driven insights to personalize experiences.
	Builds customer loyalty through direct interaction but lacks advanced data insights.	Employs algorithms for targeed marketing and personalized recommendations but lacks direct engagement.
Logistics & Supply Chain	Often limited by geographical constraints, with localized supply	Digital supply chains facilitate broad distribution networks;

	chains and higher reliance on in-store inventory management.	investments in logistics for efficient delivery across regions.
Cost Structure	High fixed costs for physical infrastructure, utilities, and on-site staffing requirements	Primarily variable costs, with significant spending on technology, digital marketing, and cybersecurity.
	Limited by location-based costs, especially in urban or high-foot-traffic areas.	Lower costs related to physical infrastructure; however, high logistics costs for shipping and delivery.
Revenue Model	Revenue primarily from in-store purchases, heavily influenced by store location, promotions, and seasonal foot traffic.	Diverse income sources, including direct online sales, subscriptions, advertising, and affiliate marketing.
	Traditional marketing methods (print ads, billboards) play a role in revenue generation.	Data-driven insights for targeted marketing; uses recommendation increase sales.
	Traditional marketing methods (print ads, billboards) play a role in revenue generation,	Traditional marketing methods (print ads, billboards) play a role in revenue generation.
	In-store experience is integral, with revenue affected by layout, promotions, and face-to-face service.	In-store experience is integral, with revenue affected by layout, promotions, and face-to-face service.
Challenges	Limited scalability due to high fixed costs and geographical restrictions.	Limited scalability due to high fixed costs and geographical restrictions.
Competitive Advantage	Direct interaction can foster brand loyalty and personalized experiences.	Data-driven personalization at scale; ability to reach global markets with minimal physical investment.

Source: Author’s construction

2.6.3 Tools and strategies to help address the challenges of remote management

The growing trend toward online and hybrid business models brings with it the challenge of remote management, a concept that has gained prominence, especially following the COVID-19 pandemic (Orešković et al., 2023). Remote management refers to overseeing personnel, projects, and operations from a distance, often through digital solutions.

One of the primary challenges of remote management is maintaining productivity and employee engagement without the traditional control mechanisms found in physical offices (Hirsch, 2023). Cloud-based tools, communication platforms, and project management software have become essential for managing remote teams, allowing managers to track performance, foster collaboration, and ensure accountability. However, remote management also introduces challenges such as the need for robust cybersecurity to protect sensitive data, managing time zone differences, and preserving a cohesive corporate culture across a distributed workforce (Kusmiyati & Priyono, 2021).

In reaction to the present challenges, companies are embracing a range of tools and techniques. Cloud platforms enable collaboration and communication, while security protocols protect remote operations. Furthermore, creating a virtual corporate culture that focuses on teamwork and the well-being of employees is important for sustaining morale and motivation. Remote management has the potential to deliver many advantages, such as quicker resolution of issues, greater efficiency and productivity, and access to the best global talent pool (MAMAND & Alagöz, 2021). The convergence of remote management and sustainability is also a major consideration. Remote work minimizes commuting needs and contributes to reducing a company's carbon footprint, but it also puts extra pressure on digital infrastructure, which may lead to environmental effects (Bouchard & Meunier, 2022). These factors highlight the need for a balanced strategy in remote management, integrating digital tools, cybersecurity, and sustainability considerations to achieve long-term success.

Through tackling these financial, operational, and management issues, companies can find their way through the changing paradigm of remote working and digital change while staying competitive and socially conscious.

2.7 Legal Framework and Supportive Tools for Online Business Management

As more companies do business online and across borders, having a sound legal framework in place and harnessing supportive digital tools have emerged as crucial necessities to maintain compliance, data integrity, and operation efficiency. The chapter discusses regulatory frameworks, political norms, and technological tools making online business sustainable, compliant, and efficient. Although online business companies need to be aware of these factors, conventional companies turning digital and international also need to comprehend these prerequisites.

2.7.1 Regulatory Documents

Companies, both online and offline, are subject to different regulatory frameworks that change geographically. They mainly concentrate on data protection, consumer protection, and maintaining transparency in operation. With growing online businesses, the dynamic nature of these regulations becomes imperative to address the specific challenges brought about by the online landscape.

Data Protection and Privacy Legislation: Data privacy is an important issue everywhere, with regulations such as the General Data Protection Regulation (GDPR) within the European Union providing a worldwide standard for the way companies deal with consumer data. The GDPR requires companies to protect personal data, keep processing records, and acquire explicit user consent (Deaves, 2017). There are similar regulations in other countries, including California's Consumer Privacy Act (CCPA), which provides residents with the right to access, erase, and opt out of data selling (Gellman, 2019), and Brazil's General Data Protection Law (LGPD), which is based on the same principles as the GDPR (Martin et al., 2020). Moreover, the Asia-Pacific Economic Cooperation (APEC) promotes privacy through its Cross-Border Privacy Rules (CBPR) system, with guarantees for secure data transfer between member states (Alford, 2020).

Consumer Protection Laws: Both offline and online companies are required to comply with legislation aimed at providing honest and equitable transactions with consumers. For example, the Consumer Rights Directive in the EU requires companies to give honest information regarding pricing, returns, and complaints. Similarly, the Federal Trade Commission (FTC) in the U.S. enforces rules to prevent false advertising and misleading product claims (Nassos & Avlonas, 2020). In emerging markets, such as India's Consumer Protection Act of 2019, these regulations are increasingly shaping the online commerce landscape (Advertising and Marketing on the Internet, 2024), and similar efforts are underway

in countries like South Africa (Jentz, 1968). The UNCITRAL Model Law on Electronic Commerce facilitates cross-border e-commerce by recognizing electronic signatures and (Sorieul, 1999) digital transactions, creating a cohesive legal framework for global online transactions (Sorieul, 1999).

2.7.2 Political Guidelines

National and international political frameworks are vital for promoting ethical and sustainable practices in business, both digital and traditional. These political standards shape the behavior of companies while aligning business activities with broader societal and ecological goals.

Digital Transformation and Sustainability Initiatives: The European Green Deal focuses on fostering sustainability across sectors, including digital enterprises. It aims to reduce waste, encourage sustainable materials, and minimize energy consumption in data centers(EU Countries Commit to Leading the Green Digital Transformation, 2021) . This aligns with sustainability efforts in Asia, such as China's 14th Five-Year Plan, which seeks to expand the digital economy while lowering carbon emissions and promoting green technologies. In countries like Japan and South Korea, similar initiatives aim to embed sustainability in business practices.

Consumer Protection and Ethical Business Practices: The OECD Guidelines for Multinational Enterprises set global standards for transparency, data protection, and ethical corporate conduct (MNE Guidelines, 2023). These guidelines are widely adopted by companies striving to demonstrate corporate social responsibility. The Digital Services Act (DSA) and Digital Markets Act (DMA) in the EU target large online platforms, ensuring fairness and competition in digital markets. These laws promote transparency in advertising and content moderation and affect large e-commerce websites (Rohendi, 2015).

2.7.3 Supportive Tools for Online Business Management

To stay compliant and maintain operational efficiency, internet businesses employ an array of software designed to streamline operations, secure data, and stay compliant with regulations. These software tools are essential to enhancing business performance while staying compliant with the law.

E-commerce Platforms: Platforms like Shopify, WooCommerce, and Magento provide businesses the infrastructure to establish an online presence. These platforms involve integration of inventory management, payment processing, and security mechanisms for data in order to meet relevant regulations like tax legislation and data protection (Soegoto et al., 2018).

Customer Relationship Management (CRM) Software: CRM tools such as Salesforce and HubSpot enable organizations to centralize customer interactions, track engagement, and amplify marketing. Customer data is stored in these platforms, enabling organizations to satisfy data privacy laws by providing features for managing consent (Bray, 2023).

Digital Payment Systems: Secure payment systems like PayPal, Stripe, and Square make secure online payment and comply with Payment Card Industry Data Security Standards (PCI DSS). Such systems minimize fraud and enable cross-border e-commerce through secure payments (Fatonah et al., 2018).

Data Analytics and Business Intelligence Solutions: Tools like Google Analytics and Adobe Analytics are critical to businesses when it comes to monitoring user behavior, marketing optimization, and customer affinity. These solutions also aid compliance with data protection regulations through enhancing transparency and handling data (Badmus et al., 2024, 2022).

Cybersecurity Solutions: With increasing data breaches, tools such as McAfee, Norton Security, and Palo Alto Networks are essential to safeguarding customer data and remaining compliant with security regulations. These tools protect from cyber attacks that may cause enormous financial loss as well as hurt the reputation of a company (Rangel, 2019).

Successful management of an online business involves a reconciliation of regulatory compliance, adoption of ethical measures, and use of technology tools to facilitate operational effectiveness. This chapter has identified the key aspects to effective online business management, such as regulatory systems, political norms, and enabling technology tools. These aspects are responsible for making sure that online businesses are legally in operation, protect the rights of consumers, and comply with data security standards.

As global markets continue to evolve, regulation structures such as the GDPR, CCPA, and LGPD will continue to take the central role in establishing online business behavior,

building trust, and avoiding legal problems. In the same manner, initiatives such as the OECD Guidelines and the European Green Deal guide companies toward sustainable and responsible behavior. The interoperation of these models with modern business applications like e-commerce sites, CRM tools, and secure payment systems creates an environment where online businesses can thrive. Ultimately, organizations that prioritize regulatory compliance, sustainability, and data protection are more likely to adapt to changing market conditions, fulfill customers' expectations, and sustain long-term success.

2.8. Development Trends of Online Business Management

The rapid evolution of online business management has transformed international trade, empowering companies to access larger markets, simplify business processes, and leverage advanced technologies for data-driven business decisions. This section highlights key trends in the development of online business management with an analysis of the size and growth of online businesses by geographic region, industries, and enterprise size.

2.8.1 Expansion of Digital Commerce: Global and Regional Insights

The development of online trade in the past twenty years has been phenomenal, spurred by technological advancements in the digital space, increased access to the internet, and shifting consumer behavior. The United Nations Conference on Trade and Development (UNCTAD) reported that world e-commerce retail sales totaled about $26.7 trillion in 2019, up 4% from 2018 (Taher, 2021, 2024). This statistic highlights the increasing influence of internet commerce in the global economy, both for B2B (business-to-business) and B2C (business-to-consumer) transactions. The COVID-19 pandemic further accelerated the shift to online commerce, as more consumers and businesses turned to digital platforms for convenience, accessibility, and safety.

The Asia-Pacific region leads in online business expansion, accounting for nearly 50% of global e-commerce sales. In 2020, China emerged as the largest market for online commerce, with sales reaching approximately $2.3 trillion. This surge was driven by major platforms like Alibaba, JD.com, and Pinduoduo. China's robust infrastructure and widespread use of digital payment systems such as Alipay and WeChat Pay have facilitated this rapid growth. North America also plays a significant role, with the United States holding a substantial share of the global e-commerce market. Amazon, the leading online retailer in the U.S., reported net sales

of $386 billion in 2020. Europe has seen steady growth, with the United Kingdom, Germany, and France emerging as key players in online retail (Qin & Liu, 2022).

In developing regions, the digital divide is slowly narrowing as more people gain internet access. For example, Latin America has witnessed a significant surge in online commerce, with Brazil and Mexico at the forefront as increasing numbers of consumers shift to digital platforms (Pompeo, 2023). Similarly, the e-commerce landscape in Africa is growing, with platforms like Jumia gaining traction as internet access improves across the continent. These regional differences emphasize the role of infrastructure, consumer behavior, and government support in the adoption and expansion of online business management.

2.8.2 Trends in Online Business Management by Sector

The impact of online business management is evident across various sectors, each demonstrating varying degrees of adaptation and digital integration. The retail sector has been a major driver of online commerce, reflecting consumers' growing preference for e-commerce. The COVID-19 pandemic accelerated this shift, increasing global retail e-commerce sales from 14.1% of total retail sales in 2019 to 19.6% in 2021 (Statista, 2021). Sectors such as fashion, electronics, and consumer goods dominate the online retail space, with platforms like Amazon, Walmart, and Rakuten serving millions of customers worldwide.

The services sector has also undergone significant digital transformation, with industries such as finance, healthcare, and education increasingly adopting online platforms to deliver services traditionally provided in person. Financial technology (fintech) firms such as PayPal, Square, and Stripe have transformed payment processing to facilitate secure online payments for small and large businesses (Chen, 2024; Suryono et al., 2020). The healthcare industry has experienced tremendous expansion of telemedicine services, fueled by the need for distance health services during the pandemic. The international telemedicine market is set to expand with a compound annual growth rate (CAGR) of 19.3% between 2021 and 2028, highlighting the continuation of digital assimilation in medicine. Learning has also found solace in web-based platforms, with Coursera, edX, and Udemy among the services that have made broad access to good quality learning content available worldwide.

Digital business management has enabled these industries to increase their reach, enhance service delivery, and respond more effectively to consumer needs. With the help of

digital tools, companies across different sectors have enhanced customer reachability, reduced costs, and gained flexibility in reacting to changing market situations.

2.8.3 Business Size and Scale in Digital Operations

The growth of e-business management is not reserved for large firms; it is also enabling small and medium enterprises (SMEs) to thrive in the global marketplace. Online platforms, marketplaces, and software are enabling SMEs to overcome traditional barriers to expansion, such as low customer reach, operational management challenges, and scalability constraints. According to the World Trade Organization (WTO, 2018), SMEs make up around 95% of businesses in the world, with a majority of them spreading their reach through the utilization of the internet.

Online platforms like Etsy, eBay, and Shopify provide SMEs with cheap ways of acquiring an online presence, making transactions, and warehousing inventory (Merzlyakova et al., 2021). Shopify, for instance, outguns small businesses with equipment to host online stores, host logistics, and accept payments, enabling them to level the playing field in a broader market. The availability of digital marketing software and analytics enables SMEs to make decisions based on facts, gaining insights into customer preferences and reinforcing their competitive edge (OECD, 2020). SME growth in the digital economy showcases how technology enhances inclusivity, drives economic diversification, and maintains small business growth.

2.8.4 Financial Outcomes and Economic Impact

The financial impact of e-commerce on the economy is significant as firms that embrace digital methods to their operations experience quicker revenue growth than firms that employ traditional methods. Online retail companies benefit from lower operational costs, broader market reach, and valuable analytics that allow them to refine their business models. For instance, Amazon and Shopify reached record revenues in 2020, fueled by increased consumer spending on digital platforms during the pandemic

Digital enterprises typically enjoy more flexible and scalable cost structures compared to traditional businesses, which rely on physical locations, extensive inventories, and direct customer service personnel. By focusing on digital operations, online businesses can reduce expenses related to rent, utilities, and maintenance, instead investing in digital marketing, data analytics, and technological innovations, which yield high returns on investment. By using

algorithms to personalize marketing and optimize inventory, online platforms can boost conversion rates and foster customer loyalty, leading to higher profitability (Tiwari, 2023).

The rise of online commerce has also had a profound impact on the job market, creating new opportunities across various sectors. For example, e-commerce growth has led to increased demand for jobs in logistics, warehousing, digital marketing, customer support, and cybersecurity. Firms such as Walmart, Shopify, and Amazon have invested heavily in their supply chain and logistics, employing thousands of people across the globe. Furthermore, the development of the gig economy, made possible by platforms such as Upwork, Fiverr, and TaskRabbit, provides flexible, project-conducted labor for freelancers in graphic design and digital marketing. Flexibility enables businesses to scale up or down their labor force according to demand, lowering fixed labor expenses (Chun et al., 2023; Kumar, 2021).

The growth of e-commerce has also triggered heavy investments in digital infrastructure, such as data centers, cybersecurity solutions, and payment gateways. Cloud computing services like Amazon Web Services (AWS), Google Cloud, and Microsoft Azure have increased the scalability of online business processes, allowing companies to process high volumes of transactions and customer data securely. With more businesses turning to data-driven decision-making, investments in digital infrastructure are likely to increase, fueling technological innovation across industries.

The development of e-commerce has international economic implications (Chun et al., 2023). Online websites enable businesses to reach global markets, facilitating international trade and economic integration. Websites such as Etsy and Alibaba enable small and medium enterprises (SMEs) from many countries to reach global consumers, boosting economic inclusiveness and local economies (OECD, 2020). These platforms have proved to be most beneficial for enterprises in emerging economies, where they help overcome traditional barriers such as inadequate infrastructure and domestic demand constraints (Taher, 2021).

Governments are also adapting to the expansion of online business, with attempts to ensure that online businesses contribute fairly to national economies. For instance, the European Union and the Organisation for Economic Co-operation and Development (OECD) are developing frameworks for digital taxation to ensure that multinational online businesses pay taxes in the nations where they earn profits (OECD, 2021).

In conclusion, the economic impact of e-commerce companies and their broader effects on the economy are considerable. E-commerce companies significantly contribute to greater profitability, employment, and infrastructure development across the world. With digital commerce spreading even further, it will continue to play an ever-increasing role in shaping the future economic landscape, fostering innovation, and enabling global economic integration. Indeed, online trade has profoundly affected the transformation of the job market.

2.9. Synthesis of Literature and Identification of Research Gaps

2.9.1 Summary of Key Themes and Findings

In this section, the most significant results of the literature taken into account in previous chapters are synthesized, and the prevailing themes that have emerged from the analysis are highlighted. The prominent themes are the operational differences between offline and online business models, the embedding of sustainability practices, and the quick speed of digitalization in business operations.

- **Operational Distinctions and Business Performance:** Research indicates that offline and online business models are worlds apart in terms of customer interaction, operational efficiency, and resource utilization. Online businesses utilize technology to deliver customized customer experiences, reduce overhead costs, and do business worldwide, while offline businesses invest in physical contact and direct customer relationships. But the combination of both models in hybrid business models is emerging as a driving force for companies wanting to maximize both cost effectiveness and customer satisfaction.
- **Sustainability and Financial Viability:** Evidence confirms the growing importance of sustainability practice as a key strategy for businesses. The research is certain that companies adopting sustainability measures not only receive an improved corporate image but also achieve financial sustainability and durability in the long run. This change is propelled by consumer demand, regulatory pressures, and market trends that value environmental and social governance (ESG) standards.
- **Digitalization and Competitive Advantage:** The fast-paced convergence of digital technologies, such as cloud computing, artificial intelligence (AI), and e-commerce platforms, has brought about a paradigm shift in the way businesses function. Studies indicate that digital transformation is at the heart of competitive advantage, with firms

utilizing digital capabilities to improve decision-making, operational flexibility, and value creation for customers in forms that were not possible before.

2.9.2 Identification of Gaps in Comparative Studies

In spite of the extensive amount of research conducted on online and offline business models, there are considerable gaps in comparative studies, especially in hybrid business models, sustainability practices in various industries, and the influence of digitalization on performance metrics.

- **Hybrid Business Models:** While much has been written on the distinct advantages of online and offline business models, few studies have focused on the integration of both approaches in hybrid models. Although sustainability practices are extensively researched with regard to their cost implications, industry-based studies are not present. How sustainability practices affect companies in industries like manufacturing, retail, healthcare, or IT needs to be investigated further.
- **Sustainability and Industry Variability:** Although sustainability practices are extensively researched with regard to their cost implications, industry-based studies are not present. How sustainability practices affect companies in industries like manufacturing, retail, healthcare, or IT needs to be investigated further. Additionally, the regional and local variations in how sustainability is integrated into business strategies and the financial outcomes in diverse market contexts remain largely under-researched.
- **Digitalization and Organizational Culture:** While digitalization has been extensively studied in terms of its technological impact, there is a lack of research on how digital transformation influences organizational culture and employee engagement. Investigating the human side of digitalization, including how companies manage change, workforce skills, and innovation, is critical for understanding the broader effects of digital tools on business performance.

2.9.3 Justification for the Present Study

This study addresses the identified gaps in the literature by providing a comprehensive analysis of the operational distinctions between online and offline business models, the financial viability of sustainability practices across industries, and the role of digitalization in maintaining competitive advantage. By focusing on hybrid business models, this research will

contribute to the limited body of comparative studies, particularly in the context of emerging markets where both online and offline models are prevalent.

Additionally, this study will expand the current understanding of how sustainability practices vary across industries, helping businesses in specific sectors to adopt more effective and tailored sustainability strategies. The exploration of digitalization's impact on both operational performance and organizational culture will provide valuable insights for companies seeking to navigate the complexities of digital transformation.

Ultimately, this study will fill key gaps in existing literature and provide actionable recommendations for businesses and policymakers on optimizing operational models, embracing sustainability, and leveraging digital tools for long-term success

3. OPERATIONAL DISTINCTIONS AND BUSINESS PERFORMANCE - ANALYSIS & DISCUSSION

This chapter examines the operational differences between online, offline, and hybrid businesses and their impact on overall performance. The analysis is guided by the hypothesis that the unique operational frameworks of these businesses significantly impact customer engagement, cost-efficiency, and resource allocation. Data from 105 respondents are used to explore these differences. Key variables include Business Model Type, Customer Interaction Mode, Digital Tool Usage, and Inventory Management. The chapter proceeds with a detailed description of the data, followed by comparative, correlation, and regression analyses.

3.1 Descriptive Analysis of Business Characteristics

This section provides an overview of the key business characteristics gathered from the survey respondents. Table 3.1 summarizes essential variables such as Role in the Organization, Business Model Type, Years in Operation, Business Size, and Industry Sector.

Table 3.1

Descriptive Statistics (N = 105)

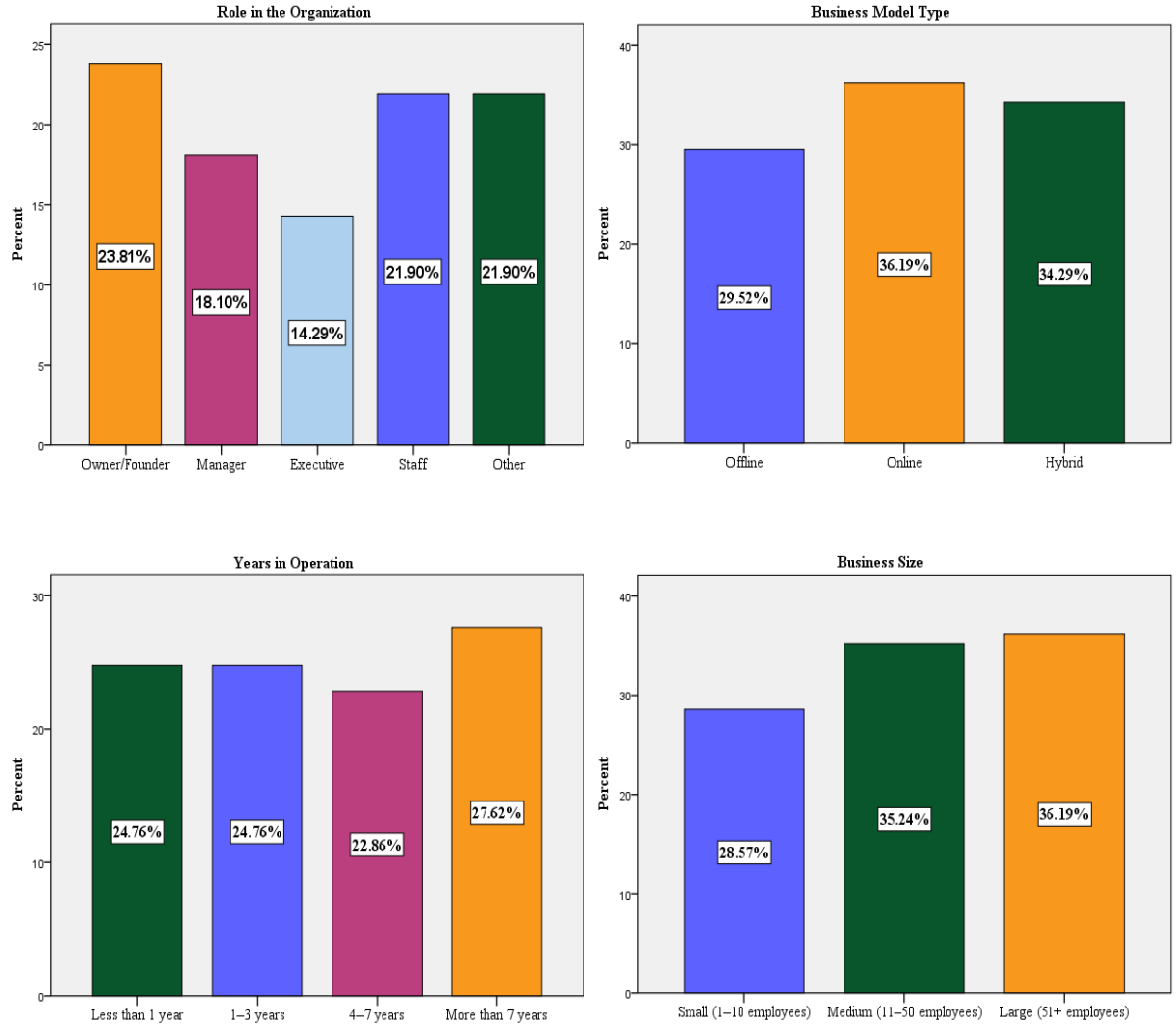
Variable	N	Min	Max	Mean	Std. Deviation
Role in the organization	105	1	5	3.00	1.500
Business Model Type	105	1	3	2.05	0.801

Years in Operation	105	1	4	2.53	1.144
Business Size	105	1	3	2.08	0.805
Industry Sector	105	1	6	3.48	1.766

Source: author's construction

The data indicate that a diverse range of responses was obtained. Respondents represent a variety of roles and come from different business models, including online, offline, and hybrid formats. There is a balanced mix regarding the duration of business operations and the scale of the organizations. These descriptive measures offer a clear profile of the sample and set the stage for deeper analysis in later sections.

Figure 3.1 provides an integrated visual summary of the sample's business characteristics. In this figure, four panels are presented side by side. The first panel illustrates the distribution of roles within organizations, showing that approximately 24% of respondents are Owners/Founders, with Managers, Executives, Staff, and Others also represented in similar proportions.

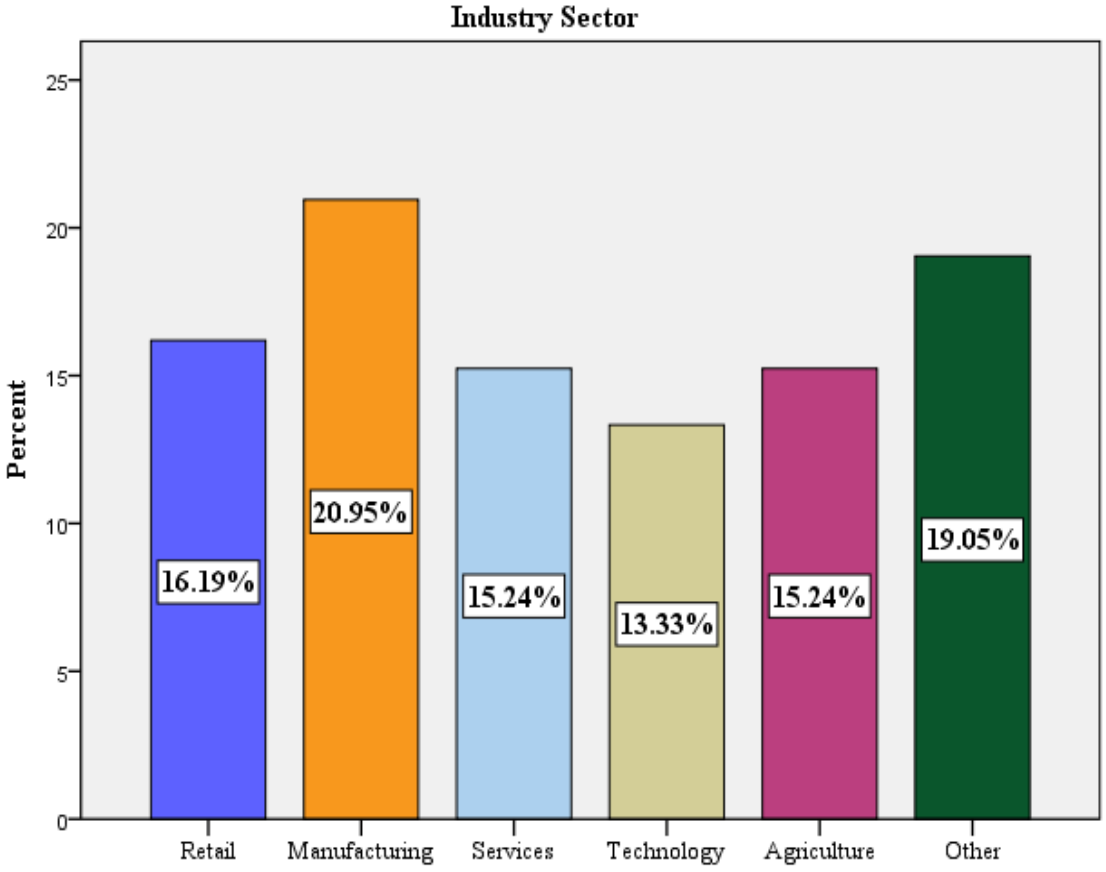


Source: author's construction

Figure 3.1: Business Characteristics (N= 105)

The second panel depicts the types of business models, where offline, online, and hybrid models are all present, with online businesses having a slightly higher frequency. The third panel summarizes the years of operation, revealing an even distribution across the four time categories, with a small emphasis on businesses operating for more than seven years. The final panel presents the business size, with small, medium, and large enterprises nearly equally represented, though medium and large businesses appear marginally more common. Overall, this figure offers a comprehensive snapshot of the diverse characteristics of the surveyed businesses, setting the stage for further analysis of how these operational distinctions relate to business performance.

Figure 3.2 presents the industry sector profile of the surveyed businesses, highlighting the distribution across various industries. The manufacturing industry consists of the highest proportion, with 21.0% of the respondents.



Source: author's construction

Figure 3.2: Industry Sector Profile (N= 105)

The "Other" category trails closely at 19.0%, reflecting a varied set of business activities outside the specified industries. Retail establishments comprise 16.2%, with services and agriculture each claiming 15.2% of the sample. The technology sector, although somewhat smaller, covers 13.3% of respondents. The distribution gives a sense of the industry composition of the businesses sampled, providing a basis for deeper analysis of operating differences and performance differences by industry.

3.2 Operational Frameworks Across Business Models

The operational frameworks across different business models reveal distinct patterns in how businesses manage processes and engage with customers. As shown in **Table 3.2**, offline businesses heavily rely on manual or traditional inventory methods, with 93.5% using this approach, and minimal adoption of digital tools. In contrast, online businesses are largely digital-driven, with 60.5% using ERP or SCM software, and a notable portion outsourcing or mixing methods. Hybrid models demonstrate the most balanced approach, with a significant 36.1% using digital tools and 33.3% applying mixed strategies, reflecting operational flexibility.

Table 3.2

Inventory Management Methods by Business Model Type (N = 105)

Business Model Type	Manual/ Traditional	Digital tools (ERP, SCM software)	Outsourced	Mixed Approach	Total
Offline	93.5%	6.5%	–	–	100.0%
Online	10.5%	60.5%	15.8%	13.2%	100.0%
Hybrid	19.4%	36.1%	11.1%	33.3%	100.0%
Total	38.1%	36.2%	9.5%	16.2%	100.0%

Source: author's construction

In terms of customer engagement, Table 3.3 indicates that offline businesses predominantly rely on face-to-face interaction (90.3%), while online models use digital channels (81.6%). Hybrid businesses are more varied, with half combining both modes. This reflects how each model aligns with its core operating environment.

Table 3.3

Customer Interaction Mode by Business Model Type (N = 105)

Business Model Type	Face-to-face	Digital/Online	Both	Total
Offline	90.3%	–	9.7%	100.0%
Online	5.3%	81.6%	13.2%	100.0%
Hybrid	22.2%	27.8%	50.0%	100.0%
Total	36.2%	39.0%	24.8%	100.0%

Source: author's construction

Finally, Table 3.4 shows strong differences in technology integration. Offline businesses mostly operate without digital tools (87.1%), while online models are highly digital, with

65.8% using advanced tools and 18.4% at a medium level. Hybrid models again demonstrate diversity, showing moderate to high digital use, consistent with their mixed operational structure.

Table 3.4

Digital Tool Usage Level by Business Model Type (N = 105)

Business Model Type	None	Low	Medium	High	Total
Offline	87.1%	9.7%	3.2%	–	100.0%
Online	13.2%	2.6%	18.4%	65.8%	100.0%
Hybrid	13.9%	16.7%	36.1%	33.3%	100.0%
Total	35.2%	9.5%	20.0%	35.2%	100.0%

Source: author's construction

Overall, the results support the theme that business models influence operational decisions, with online businesses being more digital-oriented, offline ones sticking to traditional methods, and hybrids combining both for adaptive performance.

Statistical Relationships Between Business Models and Operational Strategies

The statistical analysis confirms significant associations between business model types and key operational variables.

As shown in Table 3.5, the relationship between business model type and inventory management method is statistically significant ($\chi^2 = 66.069$, $p < .001$). The contingency coefficient (.621) indicates a strong association. Offline businesses overwhelmingly use manual/traditional methods, while online models favor digital tools and hybrid models show a balanced mix, highlighting structural distinctions in operational practices.

Table 3.5

Relationship Between Business Model Type and Customer Interaction Mode (N = 105)

Chi-Square Tests	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	66.069	6	.000
Likelihood Ratio	71.661	6	.000
Linear-by-Linear Association	32.795	1	.000
N of Valid Cases	105		
Symmetric Measures	**Value**	**Approx. Sig.**	
Contingency Coefficient	.621	.000	
N of Valid Cases	105		

Source: author's construction

Table 3.6 reveals a significant relationship between business model and primary customer interaction mode ($\chi^2 = 82.139$, $p < .001$), with a strong contingency coefficient of .663. Offline models engage primarily through face-to-face means, online businesses rely on

digital interaction, and hybrid models blend both, underlining the influence of operational models on engagement strategies.

Table 3.6
Relationship Between Business Model Type and Customer Interaction Mode (N = 105)

Chi-Square Tests	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	82.139	4	.000
Likelihood Ratio	87.910	4	.000
Linear-by-Linear Association	31.473	1	.000
N of Valid Cases	105		
Symmetric Measures	**Value**	**Approx. Sig.**	
Contingency Coefficient	.663	.000	
N of Valid Cases	105		

Source: author's construction

In Table 3.7, a strong association is also evident between business model and the level of digital tool usage in operations ($\chi^2 = 67.505$, $p < .001$). The contingency coefficient (.626) again points to a strong relationship. Offline businesses show minimal digital integration, online models lead in high-level digital usage, and hybrid models demonstrate varied but moderate to high adoption. These findings align with the broader theme that business model types shape digital maturity and operational frameworks.

Table 3.7
Impact of Business Model Type on Digital Tool Usage in Operations (N = 105)

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	67.505	6	.000
Likelihood Ratio	74.387	6	.000
Linear-by-Linear Association	27.323	1	.000
N of Valid Cases	105		
Symmetric Measures	**Value**	**Approx. Sig.**	
Contingency Coefficient	.626	.000	
N of Valid Cases	105		

Source: author's construction

3.3 Challenges in Business Operations

Operational challenges differ across business models, shaping efficiency, cost structures, and resource management. Understanding these differences helps explain how businesses navigate obstacles and adapt strategies. This supports the thesis that distinct operational frameworks influence overall performance.

As shown in Table 3.8, technology integration is the biggest challenge for offline businesses (32.3%), likely due to reliance on traditional systems and resistance to digital transformation. In contrast, workforce management is the most significant issue for online

businesses (34.2%), reflecting difficulties in remote team coordination and talent retention. Hybrid businesses face a balanced mix of challenges, suggesting they encounter both traditional and digital barriers.

Table 3.8

Top Operational Challenge by Business Model Type (N = 105)

Top Operational Challenge	**Offline**	**Online**	**Hybrid**	**Total**
Supply Chain Disruptions	19.4%	21.1%	22.2%	21.0%
Workforce Management	25.8%	34.2%	27.8%	29.5%
Cost Control	22.6%	28.9%	25.0%	25.7%
Technology Integration	32.3%	15.8%	25.0%	23.8%
Total	100.0%	100.0%	100.0%	100.0%
Chi-Square Test Results				
Statistic	**Value**	**df**		**p-value**
Pearson Chi-Square	2.788	6		0.835 (Not Significant)
Likelihood Ratio	2.827	6		0.830
Linear-by-Linear Association	0.277	1		0.599
Contingency Coefficient	0.161	-	0.835	
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.161			0.835
N of Valid Cases	105			

Source: author's construction

Cost control remains a major concern across all models, with online businesses reporting the highest percentage (28.9%). This could stem from unpredictable expenses such as digital marketing, platform fees, and customer acquisition costs. Supply chain disruptions are relatively consistent across business types, affecting 19.4% of offline, 21.1% of online, and 22.2% of hybrid businesses. This indicates that external factors, such as supplier reliability and logistics constraints, impact businesses regardless of their model.

These findings highlight that while operational challenges vary, they are not exclusive to any one business type. Businesses must adopt flexible strategies to address their specific constraints. Further analysis could explore whether factors like industry sector or business size influence these challenges, providing deeper insights into effective management approaches.

Table 3.9 presents the cost structure distribution across business models. Offline businesses have the highest proportion of fixed costs (32.3%), while online businesses show a strong reliance on variable costs (60.5%).

Table 3.9

Cost Structure by Business Model Type and Chi-Square Test Results (N= 105)

Cost Structure Type	Offline (%)	Online (%)	Hybrid (%)	Total (%)
Mostly Fixed Costs	32.3	18.4	36.1	28.6
Mostly Variable Costs	41.9	60.5	25.0	42.9
Balanced	25.8	21.1	38.9	28.6
Total	100.0	100.0	100.0	100.0
Chi-Square Test	**Value**	**Df**		**p-value**
Pearson Chi-Square	9.863	4		0.043
Likelihood Ratio	10.102	4		0.039
Linear-by-Linear Association	0.234	1		0.629
Contingency Coefficient	0.293	-		0.043
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.293			0.043
N of Valid Cases	105			

Source: author's construction

Hybrid businesses have a more balanced distribution, with 38.9% falling into the balanced category. The chi-square test indicates a statistically significant relationship ($p = 0.043$), suggesting that cost structures vary meaningfully by business model.

Table 3.10

Logistics Management by Business Model Type and Chi-Square Test Results (N = 105)

Logistics Management Type	Offline (%)	Online (%)	Hybrid (%)	Total (%)
In-house	87.1	10.5	33.3	41.0
Outsourced	12.9	84.2	19.4	41.0
Combination	-	5.3	47.2	18.1
Total	100.0	100.0	100.0	100.0
Chi-Square Test	**Value**	**Df**		**p-value**
Pearson Chi-Square	78.550	4		0.000
Likelihood Ratio	79.085	4		0.000
Linear-by-Linear Assoc.	30.278	1		0.000
Contingency Coefficient	0.654	-		0.000
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	00.654			0.000
N of Valid Cases	105			

Source: author's construction

Logistics management practices vary notably across business models. Offline businesses primarily manage logistics in-house (87.1%), reflecting their need for direct control and infrastructure. In contrast, online businesses heavily outsource logistics (84.2%) to reduce fixed costs and enhance scalability. Hybrid models adopt a mixed strategy, with 47.2% using a combination of in-house and outsourced systems, balancing flexibility and control. The chi-square test confirms a strong, statistically significant relationship between business model type and logistics management approach ($\chi^2 = 78.550$, $p < 0.001$). These findings support the thesis

that operational frameworks shape resource allocation and strategic decisions, especially in logistics execution.

3.3 Business Model Type and Perceived Strategic Advantage

The analysis reveals a clear relationship between business model type and perceived strategic advantage, as presented in Table 3.11. Offline businesses mostly prioritize personal service, with 45.2% selecting it as their main strength. This reflects their reliance on face-to-face customer engagement, which enhances trust and loyalty. In contrast, online businesses highlight customer reach (36.8%) and cost efficiency (34.2%) as their primary advantages, due to digital scalability and lower operational costs. Hybrid businesses favor operational flexibility (44.4%), benefiting from the agility of blending physical and digital operations.

The Chi-Square test shows a statistically significant relationship (p = .000), indicating that the link between business model type and strategic advantage is not due to chance. Furthermore, the Contingency Coefficient value of 0.468 suggests a moderate association between the two variables. These findings directly support the first thesis statement, which argues that the operational frameworks of online, offline, and hybrid models shape customer engagement, cost-efficiency, and ultimately, business performance. Each model emphasizes distinct strengths, influencing how they compete and grow.

Table 3.11

Main Advantage of Business Model by Business Model Type (N = 105)

Main Advantage	**Offline**	**Online**	**Hybrid**	**Total**
1. Personal Service	45.2%	7.9%	13.9%	21.0%
2. Cost Efficiency	29.0%	34.2%	8.3%	23.8%
3.Operational Flexibility	9.7%	21.1%	44.4%	25.7%
4. Customer Reach	16.1%	36.8%	33.3%	29.5%
Total	100.0%	100.0%	100.0%	100.0%
Test / Measure	**Value**	**Df**		**Asymptotic Sig. (2-sided)**
Pearson Chi-Square	29.407	6		.000
Likelihood Ratio	29.744	6		.000
Linear-by-Linear Association	12.875	1		.000
N of Valid Cases	105	—		—
Symmetric Measure	**Value**			**Approx. Significance**
Contingency Coefficient	.468	—		.000
N of Valid Cases	105	—		—

Source: author's construction

3.4 Ethical Oversight Across Business Models

Table 3.12 explores how different business model types monitor ethical standards. Online businesses show the highest use of both internal and external audits (28.9%), while hybrid and offline businesses lean more toward either internal audits (36.1% and 29.0%, respectively) or external audits (30.6% and 32.3%). A notable 25.8% of offline firms report no ethical monitoring at all, compared to just 5.3% of online firms. Although patterns vary, the chi-square test ($p = 0.217$) indicates no statistically significant association between business model type and the method of ethical standards monitoring.

Table 3.12

Ethical Standards Monitoring by Business Model Type (N = 105)

Ethical Standards Monitoring	**Offline (%)**	**Online (%)**	**Hybrid (%)**	**Total (%)**
Internal audit only	29.0%	36.8%	36.1%	34.3%
External audit	32.3%	28.9%	30.6%	30.5%
Both	12.9%	28.9%	13.9%	19.0%
None	25.8%	5.3%	19.4%	16.2%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Test / Measure	**Value**	**df**		**Asymptotic Sig. (2-sided)**
Pearson Chi-Square	8.300	6		0.217
Likelihood Ratio	8.892	6		0.180
Linear-by-Linear Association	0.442	1		0.506
N of Valid Cases	105	—		—
Symmetric Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.271			0.217
N of Valid Cases	105	—		—

Source: author's construction

3.5 Discussion of Key Findings: Operational Structures and Strategic Outcomes

The analysis conducted in this chapter strongly supports the first thesis statement: The operational frameworks of online, offline, and hybrid businesses shape customer engagement, cost-efficiency, and resource allocation, influencing overall performance.

Across all key variables — inventory management, customer interaction, technology adoption, and logistics — the data revealed meaningful distinctions tied to the type of business model. Offline businesses remain grounded in traditional approaches, favoring in-house logistics, manual processes, and personal customer service. These choices appear to strengthen customer loyalty but may limit scalability and cost-efficiency.

Online businesses, on the other hand, are structurally digital. They indicate strong usage of ERP and SCM systems, highlight digital interaction, outsource logistics, and consider cost-efficiency and reach as their key strengths. These trends are indicative of their lean operating configuration and broad customer accessibility but also of workforce management and cost control difficulties.

Hybrid models always illustrate balanced or mixed strategies, combining the openness of electronic systems with some traditional methods. They are best placed to adjust, as exhibited in their robust identification with operational flexibility and varied logistics strategies. The flexibility is compounded by complexity that calls for strategic alignment to preclude inefficiencies.

Statistical data throughout this chapter supports the importance of these differences. Chi-square tests across inventory, interaction, digital tools, and logistics provided p-values less than 0.001 in all but one instance, while contingency coefficients varied from moderate (0.468) to strong (0.663). These statistics support that the differences noted are not random, but rather indicate structured operational decisions based on the business model.

By summing up, the results further affirm that the type of business model is the determinant of company operation and performance. Offline models are best for customized service, online models optimize through digital efficiency, and hybrid models balance between the two for staying nimble. These are not only indicators of current performance but also create long-term positioning strategies.

4. SUSTAINABILITY AND FINANCIAL VIABILITY - ANALYSIS & DISCUSSION

This chapter explores how the integration of sustainability practices influences financial performance and business resilience across online, offline, and hybrid business models. Guided by the second thesis statement, the analysis investigates whether businesses that prioritize environmental and social responsibility also report stronger financial outcomes. Using survey data from 105 respondents, the chapter examines key indicators such as the type and extent of sustainability efforts, perceived financial stability, profitability trends, and resilience during

operational disruptions. The goal is to determine whether there is a meaningful, positive correlation between sustainability adoption and financial viability, and to assess how this relationship may differ across business model types. The discussion is structured through descriptive summaries, cross-tabulations, and statistical tests to evaluate the strength and significance of observed patterns.

4.1 Overview of Sustainability Adoption by Business Model

This section shows how different business types adopt sustainability practices. The table below compares offline, online, and hybrid businesses. Each group shared if they have adopted, not adopted, or are in the process of adopting sustainability practices.

Table 4.1

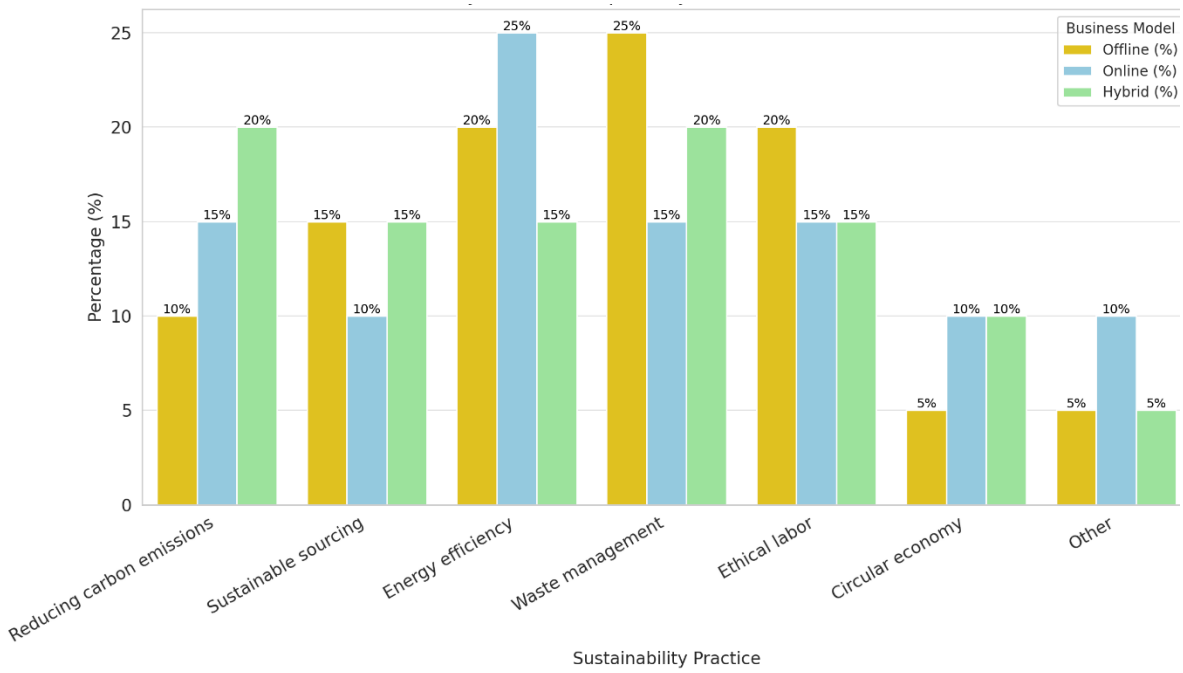
Sustainability Practice Adoption by Business Model Type (N = 105)

Business Model Type	**Yes**	**No**	**In Progress**	**Total**
Offline	30.4%	25.0%	29.2%	29.5%
Online	36.2%	41.7%	33.3%	36.2%
Hybrid	33.3%	33.3%	37.5%	34.3%
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	0.351	4		0.986
Likelihood Ratio	0.350	4		0.986
Linear-by-Linear Assoc.	0.097	1		0.755
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.058			0.986
N of Valid Cases	105			—

Source: author's construction

Table 4.1 presents the distribution of sustainability practice adoption across different business model types. The results indicate that sustainability practices are fairly evenly adopted among offline (30.4%), online (36.2%), and hybrid (33.3%) businesses. However, the chi-square test shows no statistically significant association between business model type and the adoption of sustainability practices ($\chi^2 = 0.351$, $p = 0.986$). The contingency coefficient (0.058) further confirms a very weak relationship, suggesting that the type of business model does not significantly influence whether a business adopts sustainability initiatives.

Figure 4.1 illustrates the distribution of adopted sustainability practices across three business model types—online, offline, and hybrid. Each business model emphasizes different sustainability priorities. Offline businesses show a stronger focus on *waste management and recycling* and *ethical labor practices*, likely due to their physical operations and employee-intensive environments. Online businesses, meanwhile, prioritize *energy efficiency* and *reducing carbon emissions*, reflecting their digital infrastructure. Hybrid models display a balanced adoption, with notable emphasis on *sustainable sourcing* and *circular economy initiatives*, combining the sustainability concerns of both online and offline operations. This variation suggests that sustainability strategies are influenced by the operational nature of each model.



Source: author's construction

Figure 4.1: Sustainability Practices by Business Model (N= 105)

4.2 Ease of Implementation and Operational Fit

Online businesses found it easier to implement sustainability practices, with 55.3% saying online operations support it well. Offline businesses were more divided, with 41.9% choosing online, but 22.6% pointing to offline operations, and the same share feeling unsure. Hybrid models leaned towards balance, as 41.7% said both modes are equally suitable, though 22.2% were unsure. These patterns show that digital infrastructure, flexibility, and tech tools make sustainability more manageable in online settings. The Chi-square test was significant ($p = 0.017$), confirming a real link between business model and ease of implementation. This

supports the thesis that operational structure affects how well sustainability can be adopted, which in turn shapes business resilience and financial outcomes.

Table 4.2

Ease of Sustainability Implementation by Business Model (N = 105)

Ease of Implementing Sustainability Practices	**Offline (%)**	**Online (%)**	**Hybrid (%)**	**Total (%)**
Online business operations	41.9	55.3	27.8	41.9
Offline business operations	22.6	10.5	8.3	13.3
Both models equally	12.9	28.9	41.7	28.6
Unsure	22.6	5.3	22.2	16.2
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	15.440	6		0.017
Likelihood Ratio	16.558	6		0.011
Linear-by-Linear Association	2.552	1		0.110
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.358			0.017
N of Valid Cases	105			—

Source: author's construction

4.3 Performance Implications of Embracing Sustainability

Table 4.3 presents the relationship between the adoption status of sustainability practices and their perceived impact on business performance. A significant majority (84.1%) of businesses that adopted sustainability practices reported a positive impact, in contrast to 58.3% of non-adopters who reported negative outcomes. Those currently in progress with adoption also showed promising trends, with 66.7% observing positive effects. The chi-square test results confirm a statistically significant association between sustainability adoption and perceived performance impact ($\chi^2 = 75.325$, $p < 0.001$). A high contingency coefficient (0.646) further suggests a strong relationship. These findings support the thesis that sustainability adoption enhances business resilience and perceived performance outcomes.

Table 4.3

Impact of Sustainability Practices on Business Performance by Adoption Status (N = 105)

Impact of Sustainability Practices on Business Performance	**Yes**	**No**	**In Progress**	**Total**
Positively	84.1%	–	66.7%	70.5%
No Impact	11.6%	8.3%	–	8.6%
Negatively	1.4%	58.3%	–	7.6%
Unsure	2.9%	33.3%	33.3%	13.3%
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	75.325	6		0.000
Likelihood Ratio	64.506	6		0.000
Linear-by-Linear Association	15.306	1		0.000
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.646			0.000
N of Valid Cases	105			—

Source: author's construction

Table 4.4 illustrates how the adoption of sustainability practices correlates with consumer perceptions. Among businesses that have adopted sustainability strategies, more than half (53.6%) reported that these practices significantly influenced consumer preferences, and an additional 31.9% noted somewhat influence. In contrast, among non-adopters, only 16.7% experienced significant influence, while 33.3% observed no influence and another 33.3% were unsure.

Table 4.4

Consumer Perceptions and Sustainability Alignment (N = 105)

Influence of Sustainability on Consumer Preferences	**Yes**	**No**	**In Progress**	**Total**
Significantly influence	53.6%	16.7%	33.3%	44.8%
Somewhat influence	31.9%	25.0%	41.7%	33.3%
No influence	2.9%	25.0%	12.5%	7.6%
Unsure	11.6%	33.3%	12.5%	14.3%
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	15.798	6		.015
Likelihood Ratio	14.350	6		.026
Linear-by-Linear Association	3.219	1		.073
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.362			0.015
N of Valid Cases	105			—

Source: author's construction

Those in progress also saw encouraging signs, with 75% acknowledging at least some influence. The chi-square analysis ($\chi^2 = 15.798$, $p = 0.015$) indicates a statistically significant association, though weaker than the business performance results. The contingency coefficient (0.362) suggests a moderate relationship. These results reinforce the idea that aligning operations with sustainability enhances consumer perception and potential market positioning.

4.4 Compliance Mechanisms in Sustainable Practices

Table 4.5 examines the relationship between sustainability practice adoption and ethical standards monitoring methods. Organizations that have adopted sustainability practices tend to favor external audits (33.3%) and internal audits (33.3%), while those still "in progress" show the highest use of internal audits (37.5%) but also the highest rate of no monitoring (25.0%). Among those not engaging in sustainability, one-third rely on both audits (33.3%), suggesting diverse approaches. However, the chi-square test (p = 0.493) indicates no significant association between sustainability practice status and ethical monitoring approach.

Table 4.5

Consumer Perceptions and Sustainability Alignment (N = 105)

Ethical Standards Monitoring	**Yes (%)**	**No (%)**	**In Progress (%)**	**Total (%)**
Internal audit only	33.3	33.3	37.5	34.3
External audit	33.3	16.7	29.2	30.5
Both	20.3	33.3	8.3	19.0
None	13.0	16.7	25.0	16.2
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	5.405	6		0.493
Likelihood Ratio	5.563	6		0.474
Linear-by-Linear Association	0.161	1		0.688
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.221			0.493
N of Valid Cases	105			—

Source: author's construction

4.5 Comparative Analysis of Financial Viability Across Models

This section examines how financial viability differs across offline, online, and hybrid business models, focusing on key aspects such as revenue sources, profit perceptions, scalability, and the role of digital transformation. Using cross-tabulated survey data and chi-

square tests, the analysis highlights significant structural and perceptual distinctions that influence financial outcomes. These findings contribute to the second thesis statement, which proposes that the adoption of adaptive financial and sustainability practices enhances overall business resilience and profitability. The comparative lens provides deeper insight into the operational realities that shape long-term viability across model types.

Table 4.6 highlights the distribution of main revenue sources across varying levels of sustainability practice adoption. Among organizations that have adopted sustainability practices, the majority rely on in-store sales (39.1%) and online sales (27.5%), with lower reliance on subscriptions (23.2%) and affiliate/ad revenue (10.1%). In contrast, those that have not adopted sustainability practices show a heavy dependence on affiliate/ad revenue (66.7%), while other sources remain significantly lower. Organizations in progress with sustainability adoption display a more balanced distribution, particularly in in-store (37.5%) and online sales (29.2%). The Pearson Chi-Square test value (24.658, p = 0.000) indicates a statistically significant association between sustainability practice adoption and the choice of revenue model. The contingency coefficient of 0.436 further suggests a moderate strength of relationship.

Table 4.6

Main Revenue Sources by Business Model Type (N = 105)

Main Revenue Source	**Yes**	**No**	**In Progress**	**Total**
In-store sales	39.1%	8.3%	37.5%	35.2%
Online sales	27.5%	0.0%	29.2%	24.8%
Subscriptions	23.2%	25.0%	16.7%	21.9%
Affiliate/Ad revenue	10.1%	66.7%	16.7%	18.1%
Total	100.0%	100.0 %	100.0%	100.0%
Test	Value	Df		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	24.658	6		0.000
Likelihood Ratio	22.756	6		0.001
Linear-by-Linear Association	1.144	1		0.285
N of Valid Cases	105	—		
Measure	**Value**			**Approx. Significance**
Contingency Coefficien**t**	0.436			0.000
N of Valid Cases	105			—

Source: author's construction

Table 4.7 illustrates the distribution of revenue models across organizations based on their adoption of sustainability practices. Among those who have adopted sustainability

measures, the most common revenue approach is one-time product/service sales (49.3%), followed by subscription-based models (34.8%). In contrast, organizations that have not adopted sustainability are more likely to rely on freemium models (33.3%) or subscription-based strategies, with significantly lower adoption of one-time sales (16.7%). Interestingly, those in progress with sustainability show a broader mix, though still favor one-time sales (33.3%) and subscriptions (33.3%). The Chi-Square test result ($\chi^2 = 15.105$, $p = 0.019$) indicates a statistically significant association between revenue model type and sustainability adoption, with a moderate relationship (Contingency Coefficient = 0.355).

Table 4.7

Revenue Model by Sustainability Practice Adoption (N = 105)

Revenue Model	**Yes**	**No**	**In Progress**	**Total**
One-time product/service sales	49.3%	16.7%	33.3%	41.9%
Subscription-based access or memberships	34.8%	33.3%	33.3%	34.3%
Freemium model with upsells or features	11.6%	33.3%	8.3%	13.3%
Mixed revenue strategies	4.3%	16.7%	25.0%	10.5%
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	15.105	6		0.019
Likelihood Ratio	13.915	6		0.031
Linear-by-Linear Association	7.089	1		0.008
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.355			0.019
N of Valid Cases	105			

Source: author's construction

The table 4.8 reveals a significant association between sustainability practice adoption and perceived financial management differences between online and offline business models ($\chi^2 = 44.723$, $p < 0.001$). Among respondents whose organizations have adopted sustainability practices, the most cited differences were profit margins (29.0%), revenue generation strategies (24.6%), and cost structures (20.3%). Those in the "In Progress" group leaned more toward financial sustainability (33.3%). Notably, 83.3% of respondents whose organizations had not adopted sustainability practices selected "Other," suggesting a divergence in perception or unclear understanding of financial distinctions. The contingency coefficient (0.547) also indicates a strong relationship between sustainability status and perceived financial management differences.

Table 4.8

Most Significant Financial Management Differences by Sustainability Practice Adoption (N = 105)

Most Significant Financial Management Difference	**Yes**	**No**	**In Progress**	**Total**
Revenue generation strategies	24.6%	0.0%	12.5%	19.0%
Cost structures (e.g., overhead costs)	20.3%	0.0%	20.8%	20.0%
Profit margins	29.0%	0.0%	20.8%	23.8%
Financial sustainability	17.4%	16.7%	33.3%	19.0%
Other	8.7%	83.3%	12.5%	18.1%
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	44.723	6		0.000
Likelihood Ratio	39.138	6		0.000
Linear-by-Linear Association	4.738	1		0.030
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.547			0.000
N of Valid Cases	105			

Source: author's construction

Table 4.9 presents a significant association between sustainability practice adoption and perceived financial viability across business models (Pearson Chi-Square = 33.666, $p < 0.001$).

Table 4.9

Financial Viability Comparison of Online vs Offline Models by Sustainability Practice Adoption (N = 105)

Financial Viability Comparison	**Yes**	**No**	**In Progress**	**Total**
Online business generates higher profits	36.2%	0.0%	16.7%	27.6%
Offline business generates higher profits	33.3%	8.3%	20.8%	27.6%
Both models contribute equally	15.9%	8.3%	37.5%	20.0%
Unsure	14.5%	83.3%	25.0%	24.8%
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	33.666	6		0.000
Likelihood Ratio	31.213	6		0.000
Linear-by-Linear Association	9.278	1		0.002
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.493			0.000

N of Valid Cases	105			

Source: author's construction

Among businesses that have adopted sustainability practices, 36.2% believe online models generate higher profits, while 33.3% favor offline models, reflecting a relatively even split in opinion. In contrast, the majority of businesses that have not adopted sustainability practices (83.3%) selected "Unsure," suggesting limited insight or data on performance differences. Those in progress with sustainability efforts most frequently viewed both models as equally viable (37.5%). The contingency coefficient of 0.493 indicates a strong relationship, suggesting that sustainability engagement may enhance strategic financial awareness.

Table 4.10 illustrates the relationship between sustainability practice adoption and perceptions of financial challenges in scaling business operations.

Table 4.10

Greater Financial Challenges in Scaling by Sustainability Practice Adoption (N = 105)

Greater Financial Challenges in Scaling	**Yes**	**No**	**In Progress**	**Total**
Online business	31.9%	8.3%	29.2%	28.6%
Offline business	37.7%	8.3%	20.8%	30.5%
Both have similar challenges	17.4%	0.0%	25.0%	17.1%
Not sure	13.0%	83.3%	25.0%	23.8%
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	29.981	6		0.000
Likelihood Ratio	26.970	6		0.000
Linear-by-Linear Association	3.909	1		0.048
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.471			0.000
N of Valid Cases	105			

Source: author's construction

Among organizations that have adopted sustainability practices, 37.7% identified offline businesses as facing greater financial challenges, while 31.9% pointed to online businesses. In contrast, 83.3% of non-adopters were unsure, indicating significant uncertainty or lack of insight. Those "in progress" were more evenly distributed across the options, with a slight lean toward offline challenges (29.2% online vs. 20.8% offline). The Pearson Chi-Square value ($\chi^2 = 29.981$, $p < 0.001$) indicates a statistically significant association, supported by a moderate

contingency coefficient of 0.471. This suggests that perceptions of financial scaling challenges are meaningfully linked to the stage of sustainability practice adoption.

Table 4.11 explores the perceived impact of digital transformation on financial performance based on sustainability practice adoption. Among organizations that have adopted sustainability practices, 44.9% reported that digital transformation highly improved financial performance, while 31.9% saw somewhat improved outcomes. In contrast, non-adopters were split between "highly improved" (58.3%) and "no significant change" (41.7%), indicating a more polarized experience. For businesses in the process of adopting sustainability, 50% saw somewhat improved performance, with a smaller portion (12.5%) reporting negative impacts. The association is statistically significant ($\chi^2 = 15.052$, $p = 0.020$), with a contingency coefficient of 0.354, suggesting a moderate link between sustainability status and perceived financial gains from digital transformation.

Table 4.11
Impact of Digital Transformation on Financial Performance by Sustainability Practice Adoption (N = 105)

Impact of Digital Transformation on Financial Performance	**Yes**	**No**	**In Progress**	**Total**
Highly improved	44.9%	58.3%	29.2%	42.9%
Somewhat improved	31.9%	0.0%	50.0%	32.4%
No significant change	17.4%	41.7%	8.3%	18.1%
Negatively impacted	5.8%	0.0%	12.5%	6.7%
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	15.052	6		0.020
Likelihood Ratio	18.540	6		0.005
Linear-by-Linear Association	0.732	1		0.392
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.354			0.02
N of Valid Cases	105			

Source: author's construction

4.6 Discussion of Key Findings: Sustainability and Financial Viability

This chapter set out to examine the relationship between sustainability adoption and financial performance across various business model types, guided by the thesis that *the adoption of sustainability practices is positively correlated with enhanced financial*

performance and business resilience. The findings reveal multiple layers of insight that help confirm this proposition, while also highlighting some important contextual differences between business models.

First, the analysis showed that sustainability practices are adopted across online, offline, and hybrid business models in roughly equal measure. However, statistical testing found no significant association between the type of business model and the likelihood of adopting sustainability practices. This suggests that sustainability is increasingly seen as a universal priority rather than one driven solely by operational format.

More persuasive evidence for the thesis arises if the ease of implementing sustainability is considered. Internet businesses indicated higher congruence between their operational organization and sustainability practices. Their online infrastructure and distance capabilities seemed to make the adoption of environmentally and socially conscious practices easier. Offline businesses exhibited greater diversity of response, indicative of issues of physical overhead, supply chain constraints, and organizational workforce structures. Hybrid firms, with both online and offline elements, demonstrated a more balanced but also more complex experience. The meaning of the statistical tests in this instance is in favor of the argument that operating organization can facilitate or inhibit sustainability initiatives — which in turn impact financial stability.

More investigation into financial sustainability offered more direct contrasts. Companies that had embraced sustainability practices were more likely to depend on stable, concrete sources of revenue like direct product or service sales and less on unstable income like affiliate marketing. They also preferred stable revenue streams like subscriptions and single payments, while companies not embracing sustainability depended greatly on less diversified or riskier streams. This means that sustainability-driven companies can enjoy more reliable revenues, helping them to have better long-term financial positions.

In addition, sustainable businesses were likely to exhibit higher strategic financial savvy. They understood distinct cost profiles, profit levels, and online and offline models' revenue-generation strategies. The organizations also comprehended more extensively the comparison of financial performance of online and offline channels, whereas non-adopters tended to be uncertain or uninformed. This indicates that sustainability engagement would also encourage overall financial thinking and support future-oriented planning and competition strategy.

Concerning scalability, more adamant views by adoption adopters suggested that it is more financial daunting to scale higher-cost models. This perhaps owes to prior success in combining sustained growth and wise practices. Less certain was again the stance from non-adopters, buttressing again our hypothesis that integrative sustainability promotes not only internal operational adjustments but also heightened economic literacy and visions.

Finally, digital transformation became an important driver of connecting sustainability to financial performance. Companies with engaged sustainability initiatives reported financial improvements more often due to digital solutions. These varied from improved efficiency and automation to better customer engagement. Although not every adopter experienced significant improvements, the overall trend supports the concept that sustainability and digitalization interact synergistically to enhance financial results.

In conclusion, the evidence substantiates the argument that companies embracing sustainability practices will be more likely to enjoy better financial stability and resilience. Though the nature of the business model itself might not necessarily decide the level of sustainability engagement, whether or not it can be effectively implemented and benefited from is significantly determined by the design of operations. In addition, sustainable businesses seem to be more financially conscious, have diversified revenues, and are more proactive in embracing the digital revolution — all conducive to enhanced viability in a dynamic and competitive marketplace.

5. DIGITALIZATION AND COMPETITIVE ADVANTAGE - ANALYSIS & DISCUSSION

In the rapidly changing business environment of today, digitalization has emerged as a pillar of competitiveness, redefining organizational operations, customer interactions, and future planning. With businesses moving more and more into hybrid spaces—combining online and offline operations—the application of digital tools and remote management technologies has transformed from being a choice to being a necessity. This chapter examines the strategic convergence of digital technologies and their effect on competitive positioning in different business models. Rooted in the third thesis statement—that digital tools and remote management technologies are crucial to sustaining competitiveness in the modern business environment—is this analysis that leans on the responses to surveys to analyze the levels of digital adoption, perceived benefits, challenges encountered, and future digital strategies. By doing so, the discussion highlights the extent to which digital transformation contributes to adaptability, operational efficiency, and long-term success in modern business environments.

5.1 Digital Tool Adoption Across Business Models

The integration of digital tools varies significantly across business model types. As shown in Table 5.1, offline businesses reported the highest current adoption rate, with 74.2% already using digital tools, while only 6.5% are planning to implement them. In contrast, online businesses show a dominant tendency toward future implementation, with 68.4% indicating plans to adopt digital tools, suggesting they may still be in an early or transitional stage. Hybrid businesses reflect a more fragmented picture, with 22.2% already using tools and 30.6% planning to implement, while 47.2% reported no integration.

The chi-square test results ($\chi^2 = 45.842$, $p < .001$) confirm a statistically significant association between business model type and the level of digital tool adoption. The contingency coefficient of 0.551 further suggests a moderate to strong relationship between these variables. This underscores the influence of business structure on digital transformation readiness and strategic prioritization.

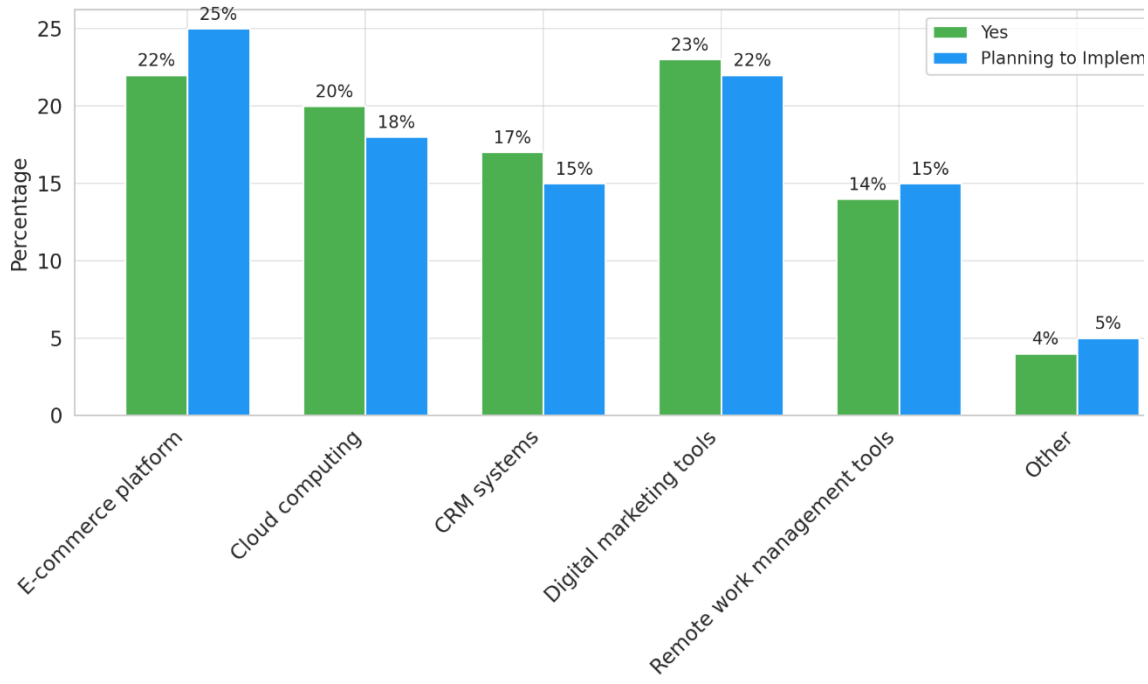
Table 5.1

Integration of Digital Tools by Business Model Type (N = 105)

Business Model Type	Yes	No	Planning to implement	Total
Offline	74.2%	19.4%	6.5%	100.0%
Online	13.2%	18.4%	68.4%	100.0%
Hybrid	22.2%	47.2%	30.6%	100.0%
Total	34.3%	28.6%	37.1%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	45.842	4		.000
Likelihood Ratio	45.730	4		.000
Linear-by-Linear Association	11.835	1		.001
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.551			0.000
N of Valid Cases	105			

Source: author's construction

As illustrated in Figure 5.1, the most commonly adopted digital tools among those who have already integrated digital technologies are digital marketing tools (23%) and e-commerce platforms (22%). In contrast, businesses planning to adopt digital tools show a stronger intention toward e-commerce (25%), followed by digital marketing (22%) and cloud computing (18%). This indicates that future digital strategies are expected to build heavily on customer outreach and scalable, cloud-based infrastructures.



Source: author's construction

Figure 5.1: Tool Usage by Digital Integration Status (N= 105)

5.2 Strategic Impacts and Barriers to Digital Transformation

Table 5.2 shows a clear link between digital integration and perceived competitive advantage. Businesses that have adopted digital tools report the highest rate of strong impact (72.2%), while those planning to implement also expect significant benefits (64.1%). In contrast, firms with no digital integration largely see only moderate or no impact. The chi-square test confirms a statistically significant association ($p < .001$), highlighting digital transformation as a key driver of strategic competitiveness.

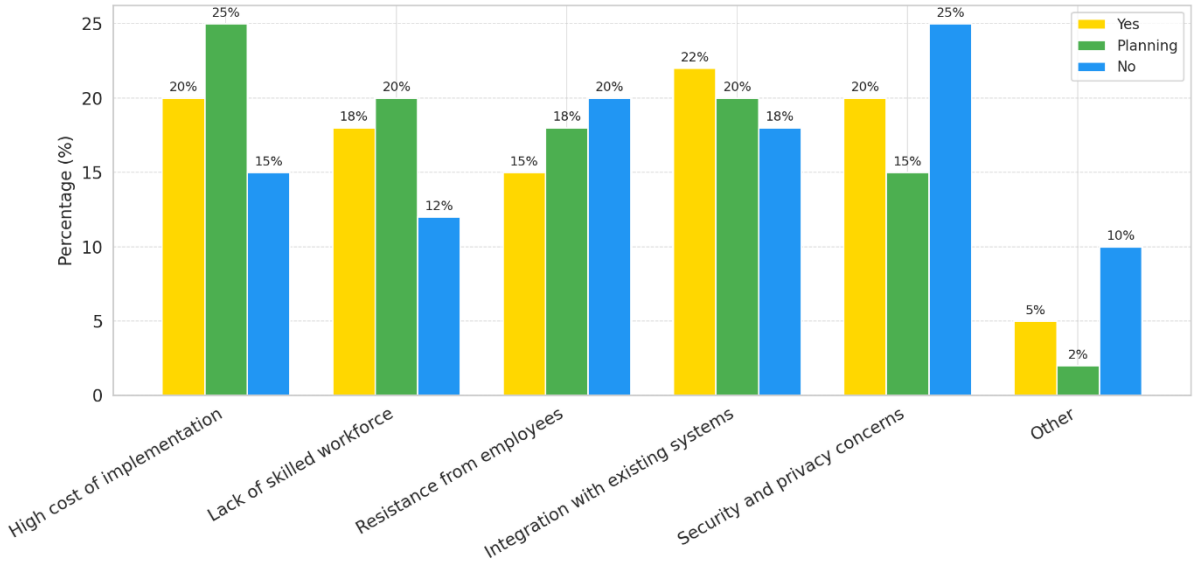
Table 5.2

Impact of Digital Transformation on Competitive Advantage (N = 105)

Impact on Competitive Advantage	**Yes (%)**	**No (%)**	**Planning to Implement (%)**	**Total (%)**
Strongly Enhanced	**72.2%**	**3.3%**	**64.1%**	**49.5%**
Somewhat Enhanced	**22.2%**	**73.3%**	**30.8%**	**40.0%**
No Impact	–	**23.3%**	**2.6%**	**7.6%**
Reduced Competitive Advantage	**5.6%**	**–**	**2.6%**	**2.9%**
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	45.912	6		.000
Likelihood Ratio	54.027	6		.000
Linear-by-Linear Association	.028	1		.867
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.552			0.000
N of Valid Cases	105			

Source: author's construction

Figure 5.2 illustrates key challenges businesses face in digital technology integration across three categories: current users, planners, and non-users. Current users most often report *high implementation costs* and *system integration issues*, while planners cite *lack of skilled workforce* and *privacy concerns*. Non-users are more affected by *employee resistance* and *unclear barriers*. These patterns highlight how digital adoption challenges vary by readiness stage, suggesting the need for targeted interventions.



Source: author's construction

Figure 5.2: Challenges in Integrating Digital Technologies (N= 105)

5.3 Digital Maturity and Regulatory Readiness

Table 5.3 illustrates a clear relationship between digital integration and data protection compliance.

Table 5.3

Integration of Digital Tools/Technologies by Compliance with Data Protection Regulations(N = 105)

Compliance with Data Protection Regulations	**Yes (%)**	**No (%)**	**Planning to Implement (%)**	**Total (%)**
Not aware	5.6%	33.3%	2.6%	12.4%
Aware but not compliant	5.6%	33.3%	5.1%	13.3%
Partially compliant	11.1%	23.3%	30.8%	21.9%
Fully compliant	77.8%	10.0%	61.5%	52.4%
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	46.316	6		.000
Likelihood Ratio	48.001	6		.000
Linear-by-Linear Association	0.069	1		.793
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.553			0.000
N of Valid Cases	105			

Source: author's construction

Among businesses that have integrated digital tools, 77.8% are fully compliant with data protection regulations, highlighting a strong alignment between digital maturity and regulatory readiness. Conversely, a significant portion of non-digital adopters fall into the "not aware" (33.3%) and "aware but not compliant" (33.3%) categories, indicating a notable compliance gap. Those planning digital integration also show promise, with 61.5% already fully compliant. The Chi-square test confirms a statistically significant association ($p < .001$), suggesting that businesses further along in digital transformation are more likely to meet regulatory standards.

5.4 Strategic Outlook and Digital Advantage

As shown in Table 5.4, businesses with integrated digital tools identify customer reach (36.1%) and operational flexibility (33.3%) as their main advantages. In contrast, offline businesses favor cost efficiency and personal service. Those planning to adopt digital tools mirror digital adopters, indicating a shift in priorities. This pattern reinforces the third thesis—strategic digital integration enhances adaptability and customer engagement, key to gaining competitive edge.

Table 5.4

Main Advantage of Business Model by Digital Integration Status (N = 105)

Main Advantage	**Yes (%)**	**No (%)**	**Planning (%)**	**Total (%)**
Cost efficiency	11.1%	23.3%	20.5%	18.1%
Customer reach	36.1%	20.0%	35.9%	31.4%
Personal service	19.4%	23.3%	10.3%	17.1%
Operational flexibility	33.3%	33.3%	33.3%	33.3%
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	5.158	6		0.524
Likelihood Ratio	5.544	6		0.476
Linear-by-Linear Association	0.512	1		0.474
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.216			0.524
N of Valid Cases	105			

Source: author's construction

Table 5.5 reveals a strong preference for hybrid models across all groups, particularly among those planning digital integration (66.7%) and digital adopters (36.1%). Offline businesses show a relatively higher level of uncertainty and are less likely to shift online. This

reflects how digital readiness supports clearer strategic direction, aligning with the thesis that digital transformation enables stronger positioning in future business models.

Table 5.5

Future Strategy Orientation by Digital Integration Status (N = 105)

Future Strategy Orientation	**Yes (%)**	**No (%)**	**Planning (%)**	**Total (%)**
Remain offline	16.7%	13.3%	7.7%	12.4%
Shift to online	25.0%	10.0%	17.9%	18.1%
Adopt hybrid model	36.1%	53.3%	66.7%	52.4%
Unsure	22.2%	23.3%	7.7%	17.1%
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	9.872	6		0.130
Likelihood Ratio	10.557	6		0.103
Linear-by-Linear Association	0.241	1		0.624
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.293			0.130
N of Valid Cases	105			

Source: author's construction

According to Table 5.6, digital adopters and those planning integration prioritize digital transformation and expansion of online models. Hybrid model integration is also more significant among the planning group (28.2%). Offline businesses show more emphasis on digital transformation alone (33.3%) but less on integrated strategies. This supports the thesis that digital maturity is closely linked to forward-looking strategic priorities and long-term competitiveness.

Table 5.6

Strategic Priorities by Digital Integration Status (N = 105)

Most Significant Success Factor	**Yes (%)**	**No (%)**	**Planning (%)**	**Total (%)**
Digital transformation	22.2%	33.3%	25.6%	26.7%
Sustainability	25.0%	16.7%	12.8%	18.1%
Expansion of online models	22.2%	16.7%	30.8%	23.8%
Hybrid model integration	13.9%	20.0%	28.2%	21.0%
Other	16.7%	13.3%	2.6%	10.5%
Total	100.0%	100.0%	100.0%	100.0%
Test	**Value**	**Df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square	9.569	8		0.297

Likelihood Ratio	10.350	8		0.241
Linear-by-Linear Association	0.072	1		0.789
N of Valid Cases	105			
Measure	**Value**			**Approx. Significance**
Contingency Coefficient	0.289			0.297
N of Valid Cases	105			

Source: author's construction

5.5 Discussion of Key Findings: Digitalization and Competitive Advantage

The findings from this chapter reinforce the central thesis that digitalization plays a critical role in achieving and sustaining competitive advantage in modern, hybrid business landscapes. Digital tool adoption is not uniform across business models, as evidenced in Table 5.1. Offline businesses appear more established in their digital use, while online models are still undergoing digital transitions. Hybrid businesses reflect a mixed picture, indicating both challenges and opportunities for integration. This variance suggests that structural differences in business models influence digital readiness and strategy.

Importantly, the impact of digital adoption on competitiveness is clear. Table 5.2 shows that businesses already using digital tools overwhelmingly report a strong positive impact on competitive advantage. Even those in the planning phase expect gains, while those that lack digital integration experience little or no effect. This lends itself to the belief that digital transformation enhances strategic agility and market responsiveness.

Regulatory compliance is also seen with digital maturity. Referring to Table 5.3, fully compliant firms are generally those that are already embracing digital technology. The connection here would mean that digitalization not only facilitates operations betterment but even compliance with information privacy standards, a key building block in enduring and trustworthy practice.

Strategic benefits of digital integration are also explored in Table 5.4. Digital adopters value customer access and operational flexibility—drivers that are key to the current customer-centric, high-speed markets. This aligns with broader competitive drivers, supporting the worth of digital strategies to enhance market involvement and responsiveness.

Future strategic plans also reflect digital influence. As can be observed in Table 5.5, firms that are considering or already using digital tools have a greater likelihood of adopting hybrid

models. This reflects a trend toward flexibility and omnichannel interaction, which are essential to compete in physical and digital spaces.

Lastly, Table 5.6 indicates that digital adopters and planners place emphasis on digital transformation, online expansion, and hybrid integration. This forward-looking approach highlights how digital maturity enables long-term competitiveness by directing strategic priorities.

Overall, the study identifies digital transformation as much more than a means to an end, rather as a strategic necessity. Across customer interactions, operational agility, compliance, and planning for the future, digitalization is again and again a critical driver of competitive differentiation across different business models.

6. CONCLUSION AND RECOMMENDATIONS

This thesis aimed to investigate how various business models—online, offline, and hybrid—manage operational forms, sustainability practices, and digitalization in search of performance, resilience, and competitiveness. Based on 105 responses from various industries and positions, the analysis identifies some important patterns that directly substantiate the study's three main theses.

In this respect, the research confirms that performance-related factors of business models significantly differ between online and offline operations. Online models rely more on digital tools for inventory management and remote engagement, while offline models rely on face-to-face interactions and manual tracking of inventories. Hybrid businesses combine elements of both, making them a bit more flexible, but sometimes even more complicated in structure. These are not merely surface distinctions—they are statistically significant, as they are in fields such as inventory management ($\chi^2 = 66.069$, $p < .001$) and use of digital tools ($\chi^2 = 67.505$, $p < .001$). Notably, cost structures and logistics management also differed considerably based on model type, impacting how companies deploy resources and interact with their markets. Thus, it is evident that the operational foundation of a business—shaped by its model—directly affects its efficiency, customer experience, and overall performance.

In addition to operational factors, sustainability emerged as a key determinant of financial stability and strategic clarity. While adoption rates of sustainability practices were relatively even across business models, the ease of implementation and the perceived benefits differed. Online businesses, supported by their digital infrastructures, found sustainability easier to integrate ($p = 0.017$), while offline models faced more practical challenges. Nevertheless, those that adopted sustainable practices reported notable financial advantages. A striking 84.1% of adopters experienced positive impacts on performance, and a majority noted improved consumer perception, confirming a strong correlation between sustainability and business success. Adopters also demonstrated more stable revenue streams, clearer cost structures, and a stronger understanding of financial metrics—traits largely absent among non-adopters, who often reported uncertainty about financial viability. This reinforces the conclusion that sustainability is more than a corporate responsibility—it is a catalyst for resilience and profitability.

Moreover, digitalization proved essential for securing a competitive edge. Although offline businesses surprisingly led in current digital tool usage, online businesses showed strong intentions to further integrate digital technologies, and hybrid models displayed a wide range of adoption levels. Digital tools such as e-commerce platforms and cloud services were seen as critical enablers of market reach and operational flexibility. Businesses that had adopted these tools were far more likely to report a competitive advantage (72.2%), and they also demonstrated better compliance with data protection regulations and a stronger strategic orientation toward hybrid or digitally supported futures. In contrast, non-users struggled with internal resistance, unclear goals, and limited awareness of the benefits of digital transformation. Thus, the evidence strongly supports the idea that digital integration is not optional—it is increasingly a prerequisite for long-term competitiveness.

Taken together, these findings support all three research theses. Operational distinctions do matter, as they shape how businesses function, interact with customers, and manage costs. Sustainability enhances financial viability, enabling businesses to perform better and plan more effectively. And finally, digital transformation is a strategic necessity, enabling adaptability, compliance, and market responsiveness.

Recommendations

Based on these findings, some recommendations can be proposed. For business leaders, the focus should be on merging sustainability and digitalization into long-term strategy, not as add-ons. This involves investing in scalable technologies, training employees, and embracing stable, monetizable revenue streams like subscriptions or direct sales. Hybrid businesses, specifically, need to ensure that their digital and traditional elements are aligned to prevent fragmentation and inefficiencies.

Policymakers might support this by providing access to digital technologies, enabling small and medium enterprises with specialized training, and promoting sustainability through incentives or certification programs. Enhancing regulatory readiness programs, particularly in the areas of data protection, will further enable companies to meet changing compliance norms.

For future studies, it would be worth studying sectoral trends and monitoring firms longitudinally in order to learn more about the long-term consequences of digital and sustainable changes. Combining quantitative data with qualitative interviews could also yield deeper insights into the strategic decisions behind different business models.

Ultimately, this study highlights a clear message: businesses that embrace sustainability and digital transformation—regardless of their current model—are better positioned for success. The most competitive and resilient businesses will be those that not only adapt to change but lead it, shaping strategies that are ethically grounded, digitally equipped, and financially sustainable.

REFERENCES

1. Abdi, Y., Li, X., & Càmara-Turull, X. (2020). Impact of Sustainability on Firm Value and Financial Performance in the Air Transport Industry. Sustainability, 12(23), 9957. **https://doi.org/10.3390/su12239957**
2. Advertising and Marketing on the Internet. (2024). https://www.ftc.gov/business-guidance/resources/advertising-marketing-internet-rules-road
3. Alford, S. (2020). What is the General Data Protection Regulation (GDPR)? In Routledge eBooks (p. 1). Informa. https://doi.org/10.4324/9781003004790-1
4. Baako, I., & Umar, S. (2020). An Integrated Vulnerability Assessment of Electronic Commerce Websites. International Journal of Information Engineering and Electronic Business, 12(5), 24. https://doi.org/10.5815/ijieeb.2020.05.03
5. Badmus, O., Rajput, S., Arogundade, J. B., & Williams, M. H. (2024). AI-driven business analytics and decision making. World Journal of Advanced Research and Reviews, 24(1), 616. https://doi.org/10.30574/wjarr.2024.24.1.3093
6. Balseiro, S., Lin, M. S., Mirrokni, V., Leme, R. P., & Zuo, S. (2017). Dynamic Revenue Sharing. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2956715
7. Bar-Gill, S., Brynjolfsson, E., & Hak, N. (2024). Helping Small Businesses Become More Data-Driven: A Field Experiment on eBay. Management Science, 70(11), 7345. https://doi.org/10.1287/mnsc.2021.02026
8. Baschab, J., & Piot, J. (2012). Information Technology Costs (p. 43). https://doi.org/10.1002/9781119198031.ch3
9. Bhardwaj, B. R. (2016). Role of green policy on sustainable supply chain management. Benchmarking An International Journal, 23(2). https://doi.org/10.1108/bij-08-2013-0077
10. Bhatt, T. (2024). Scalable Infrastructure for eCommerce: Best Practices & Solutions. https://www.intelivita.com/blog/ecommerce-infrastructure/
11. Binjaku, A., Luarasi, T., & Binjaku, H. (2014). Customer Relationship Management in the Technology Era. Academic Journal of Interdisciplinary Studies. https://doi.org/10.5901/ajis.2014.v3n1p325
12. Blazheska, D., Ristovska, N., & Gramatnikovski, S. (2020). THE IMPACT OF DIGITAL TRENDS ON MARKETING. UTMS Journal of Economics, 11(1), 48. https://EconPapers.repec.org/RePEc:ris:utmsje:0285
13. Bouchard, L., & Meunier, S. (2022). Promoting remote workers' psychological health: Effective management practices during the COVID-19 crisis. Canadian Journal of Administrative Sciences / Revue Canadienne Des Sciences de l Administration, 40(1), 6. https://doi.org/10.1002/cjas.1664
14. Bowman, B. (2000). Benefits of Using Deliquescing Desiccants for Gas Dehydration. All Days. https://doi.org/10.2118/60170-ms
15. Bray, M. (2023). The Best 11 CRM Software for Small Business. https://blog.hubspot.com/sales/crm-software-for-small-business

16. Bressanelli, G., Saccani, N., Perona, M., & Baccanelli, I. (2020). Towards Circular Economy in the Household Appliance Industry: An Overview of Cases. Resources, 9(11), 128. https://doi.org/10.3390/resources9110128

17. Brundtland, G.H. (1987). Our common future world commission on environment and developement. https://www.are.admin.ch/are/en/home/media/publications/sustainable-development/brundtland-report.html

18. Bryant, J. (2015). Traditional Brick-And-Mortar vs Online Businesses – Which Is Better? https://selfmadesuccess.com/traditional-brick-and-mortar-vs-online-businesses/

19. Chaudhary, S. (2017). Effect of E-Commerce on Organization Sustainability. IOSR Journal of Business and Management, 19(7), 15. https://doi.org/10.9790/487x-1907031524

20. Chen, Q. (2024). Challenges and Opportunities of Fintech Innovation for Traditional Financial Institutions. Frontiers in Business Economics and Management, 13(3), 28. https://doi.org/10.54097/p49f1543

21. Chen, R. J. C. (2014). An Integrated Sustainable Business and Development System: Thoughts and Opinions. Sustainability, 6(10), 6862. https://doi.org/10.3390/su6106862

22. Chu, D. (2024). Data Security: Physical Security Breaches. https://www.secoda.co/learn/data-security-physical-security-breaches

23. Chun, H., Joo, H. H., Kang, J., & Lee, Y. (2023). E-commerce and local labor markets: Is the “Retail Apocalypse” near? Journal of Urban Economics, 137. https://doi.org/10.1016/j.jue.2023.103594

24. Comin, L. C., Aguiar, C. C., Sehnem, S., Yusliza, M. Y., Cazella, C. F., & Julkovski, D. J. (2019). Sustainable business models: a literature review [Review of Sustainable business models: a literature review]. Benchmarking An International Journal, 27(7), 2028. Emerald Publishing Limited. https://doi.org/10.1108/bij-12-2018-0384

25. Dai, W., & Uden, L. (2008). Empowering SME Users Through Technology Innovation: A Services Computing Approach. Journal of Information & Knowledge Management, 7(4), 267. https://doi.org/10.1142/s0219649208002159

26. Deaves, M. (2017). General Data Protection Regulation (GDPR). https://www.rugby.gov.uk/forstaff/GDPR

27. Devarakonda, S., Kodati, C., Reddy, M. R. T., Reddy, T. R., & Srinivas, V. (2020). IMPACT OF SMART PHONES ON E-COMMERCE IN TRANSFORMING CUSTOMER ENGAGEMENT. International Journal of Advanced Research, 8(4), 1110. https://doi.org/10.21474/ijar01/10884

28. Dimitriu, O., & Matei, M. (2014). A New Paradigm for Accounting through Cloud Computing. Procedia Economics and Finance, 15, 840. https://doi.org/10.1016/s2212-5671(14)00541-3

29. Dona, I., & Mohan, U. (2020). Evaluation of Service Dimensions of Traditional Banking and Digital Banking: The Case Study of Lloyds Bank, United Kingdom. The

International Journal of Business & Management, 8(12). https://doi.org/10.24940/theijbm/2020/v8/i12/bm2012-018

30. Elkington, J. (1994). Towards the Sustainable Corporation: Win-Win-Win Business Strategies for Sustainable Development. 36(2), 90. https://doi.org/http://dx.doi.org/10.2307/41165746
31. Elkington, J. (1997). The triple bottom line. 2, 49. https://johnelkington.com/archive/TBL-elkington-chapter.pdf
32. Elkington, J. (1998). ACCOUNTING FOR THE TRIPLE BOTTOM LINE. Measuring Business Excellence, 2(3), 18. https://doi.org/10.1108/eb025539
33. EU countries commit to leading the green digital transformation. (2021). https://digital-strategy.ec.europa.eu/en/news/eu-countries-commit-leading-green-digital-transformation
34. Fatonah, S., Yulandari, A., & Wibowo, F. W. (2018). A Review of E-Payment System in E-Commerce [Review of A Review of E-Payment System in E-Commerce]. Journal of Physics Conference Series, 1140, 12033. IOP Publishing. https://doi.org/10.1088/1742-6596/1140/1/012033
35. Fomby, D. (2023). 4 Tips for eCommerce Content Personalization to Increase Your Sales. https://www.growth-hackers.net/tips-ecommerce-content-personalization-increase-sales/
36. Galdolage, B. S. (2021). Interplay between Performance and Convenience in Customer Choice of Self-Service Technologies. Current Journal of Applied Science and Technology, 80. https://doi.org/10.9734/cjast/2021/v40i1031361
37. Greenwald, B., & Kahn, J. (2005). All strategy is local. PubMed, 83(9). https://pubmed.ncbi.nlm.nih.gov/16171214
38. Guido, G., Prete, M. I., & Sammarco, L. (2010). Prototypes versus examples: A new model of online credibility for commercial websites. Journal of Targeting Measurement and Analysis for Marketing, 18(1), 3. https://doi.org/10.1057/jt.2009.25
39. Hilton, B., Hajihashemi, B., Henderson, C. M., & Palmatier, R. W. (2020). Customer Success Management: The next evolution in customer management practice? Industrial Marketing Management, 90, 360. https://doi.org/10.1016/j.indmarman.2020.08.001
40. Hirsch, A. S. (2023). How to Manage Remote Teams Effectively. https://www.shrm.org/resourcesandtools/hr-topics/employee-relations/pages/how-to-manage-remote-teams-effectively.aspx
41. Howarth, K. (2024). IT Spending Benchmarks: Too Much, Too Little, Or Just Right. https://www.vc3.com/blog/it-spending-benchmarks
42. Huang, D. Y., Grundman, D., Thomas, K., Kumar, A., Bursztein, E., Levchenko, K., & Snoeren, A. C. (2017). Pinning Down Abuse on Google Maps. 1471. https://doi.org/10.1145/3038912.3052590
43. Hylewski, M. (2024). Digital Marketing vs Traditional Marketing – Key Differences. https://landingi.com/digital-marketing/traditional-marketing-comparison/

44. Ikerd, J. (2024). Business Management for Sustainability. https://www.mdpi.com/2071-1050/16/9/3714

45. Iluyomade, T. D., & Okwandu, A. C. (2024). Smart buildings and sustainable design: Leveraging AI for energy optimization in the built environment. International Journal of Science and Research Archive, 12(1), 2448. https://doi.org/10.30574/ijsra.2024.12.1.1049

46. Jentz, G. A. (1968). FEDERAL REGULATION OF ADVERTISING: FALSE REPRESENTATIONS OF COMPOSITION, CHARACTER, OR SOURCE AND DECEPTIVE TELEVISION DEMONSTRATIONS. American Business Law Journal, 6(1), 409. https://doi.org/10.1111/j.1744-1714.1968.tb01072.x

47. Kabango, C. M., & Romeo, A. (2015). Factors influencing e-commerce development: Implications for the developing countries. International Journal of Innovation and Economic Development, 1(1), 59. https://doi.org/10.18775/ijied.1849-7551-7020.2015.11.2006

48. Kim, Y. (2021). Revitalization of Offline Fashion Stores: Exploring Strategies to Improve the Smart Retailing Experience by Applying Mobile Technology. Sustainability, 13(6), 3434. https://doi.org/10.3390/su13063434

49. Koraza, T. (2023). How the Greatest Salesman of All Time Sold 13,001 Cars in His Career. https://bettermarketing.pub/how-the-greatest-salesman-of-all-time-sold-13-001-cars-in-his-career-d60f15b17ff?gi=c98b74397f4e

50. Kuhn, P., & Yu, L. (2020). How Costly Is Turnover? Evidence from Retail. Journal of Labor Economics, 39(2), 461. https://doi.org/10.1086/710359

51. Kumar, A. (2021). Impact of e-commerce on small scale industries in global economy. International Journal of Financial Management and Economics, 4(2), 70. https://doi.org/10.33545/26179210.2021.v4.i2.91

52. Kuptsova, A. (2023). 5 Practices to Enhance E-Commerce Customer Engagement. https://www.mytotalretail.com/article/5-practices-to-enhance-e-commerce-customer-engagement/

53. Kusmiyati, L., & Priyono, A. (2021). The strategy for combining online and offline business model for MSMEs. International Journal of Research in Business and Social Science (2147-4478), 10(4), 406. https://doi.org/10.20525/ijrbs.v10i4.1231

54. Lara, C. L., & Wassick, J. M. (2023). Future of Supply Chain: Challenges, Trends, and Prospects. arXiv (Cornell University). https://doi.org/10.48550/arXiv.2301.

55. Le, Y. (2020). The Role and Strategy of Business Administration in the Development of Scientific and Technological Innovation in Enterprises. Business Administration and Management, 2(2), 40. https://doi.org/10.18282/bam.v2i2.1551

56. Leinbach, N. (2023). 12 Benefits Of Local Stores That Are Difficult Or Impossible To Replicate Online. https://retailminded.com/12-benefits-of-local-stores-that-are-difficult-or-impossible-to-replicate-online

57. Liu, Y., Osterrieder, J., Misheva, B. H., Koenigstein, N., & Baals, L. J. (2023). Navigating the Environmental, Social, and Governance (ESG) landscape: constructing a robust and reliable scoring engine - insights into Data Source Selection, Indicator Determination, Weighting and Aggregation Techniques, and Validation Processes for

Comprehensive ESG Scoring Systems. Open Research Europe, 3, 119. https://doi.org/10.12688/openreseurope.16278.1

58. Lynch, K. (2024). Supply Chain Management: A Modern Guide for Small Businesses. https://www.americanexpress.com/en-us/business/trends-and-insights/articles/supply-chain-management-a-modern-guide-for-small-businesses/

59. Mahmoud, R. (2020). Brick & Mortar Retail vs. Online Retail : Cost Comparison. https://www.retaildogma.com/brick-and-mortar-retail-vs-online-retail/

60. MAMAND, O. M., & Alagöz, A. (2021). Framework of the internal control under remote management: An empirical study. International Journal of Research in Business and Social Science (2147-4478), 10(4), 264. https://doi.org/10.20525/ijrbs.v10i4.1216

61. Mamun, M. (2021). Sustainable Supply Chain Management: Insights from Australia's Firms. International Journal of Business and Management, 16(11), 99. https://doi.org/10.5539/ijbm.v16n11p99

62. Mansor, N., Mahmud, R., Siti, H., Syahira, I., Anwar, K., Raman, A., Roshaini, W., & Ali, W. N. A. W. (2018). E-Commerce Adoption Research: A Review of Literature [Review of E-Commerce Adoption Research: A Review of Literature]. The Journal of Social Sciences Research, 6, 90. https://doi.org/10.32861/jssr.spi6.90.99

63. Martin, K. D., Kim, J. J., Palmatier, R. W., Steinhoff, L., Stewart, D. W., Walker, B. A., Wang, Y., & Weaven, S. (2020). Data Privacy in Retail. Journal of Retailing, 96(4), 474. https://doi.org/10.1016/j.jretai.2020.08.003

64. Merzlyakova, E., Ershova, I., & Bridskiy, E. (2021). Main Trends in the Development of the Global E-Commerce Market. SHS Web of Conferences, 110, 1035. https://doi.org/10.1051/shsconf/202111001035

65. Miklošík, A., & Evans, N. (2020). Impact of Big Data and Machine Learning on Digital Transformation in Marketing: A Literature Review [Review of Impact of Big Data and Machine Learning on Digital Transformation in Marketing: A Literature Review]. IEEE Access, 8, 101284. Institute of Electrical and Electronics Engineers. https://doi.org/10.1109/access.2020.2998754

66. MNE Guidelines. (2023). https://mneguidelines.oecd.org/mneguidelines/

67. Moghrabi, I. A. R., Bhat, S. A., Szczuko, P., AlKhaled, R. A., & Dar, M. A. (2023). Digital Transformation and Its Influence on Sustainable Manufacturing and Business Practices. Sustainability, 15(4), 3010. https://doi.org/10.3390/su15043010

68. Monge, M. E. C., & Soriano, D. R. (2023). The role of digitalization in business and management: a systematic literature review. Review of Managerial Science, 18(2), 449. https://doi.org/10.1007/s11846-023-00647-8

69. Moore, K. (2021). How Reducing Inventory Is Reshaping Physical Retail. https://www.shopify.com/retail/reduced-inventory-stores

70. Moteria, D. (2023). Successful Influencer Marketing Campaign Examples to Help you Create the Best Campaign. https://www.growth-hackers.net/successful-influencer-marketing-campaign-examples-create-best/

71. Nassos, D. G., & Avlonas, D. N. (2020). Green Marketing and Communication and How to Avoid Green and Blue Washing (p. 313). https://doi.org/10.1002/9781119561132.ch24

72. Nez, F. (2023). Online Business vs Traditional Business: Pros & Cons. https://franknez.com/online-business-vs-traditional-business-pros-cons/

73. Nyamekye, P., Lakshmanan, R., Tepponen, V., & Westman, S. (2023). Sustainability aspects of additive manufacturing: Leveraging resource efficiency via product design optimization and laser powder bed fusion. Heliyon, 10(1). https://doi.org/10.1016/j.heliyon.2023.e23152

74. Okoli, C. (2007). The internet competitive landscape: insights from organisational ecology. International Journal of Business Environment, 1(4), 411. https://doi.org/10.1504/ijbe.2007.014599

75. Olson, E. G. (2006). Not by technology alone: sustaining winning strategies. Journal of Business Strategy, 27(4). https://doi.org/10.1108/02756660610701003

76. Orešković, T., Milošević, M., Košir, B., Horvat, D., Glavaš, T., Sadarić, A., Knoop, C.-I., & Orešković, S. (2023). Associations of working from home with job satisfaction, work-life balance, and working-model preferences. Frontiers in Psychology, 14. https://doi.org/10.3389/fpsyg.2023.1258750

77. Papathomas, A., & Konteos, G. (2023). Financial institutions digital transformation: the stages of the journey and business metrics to follow. Journal of Financial Services Marketing, 29(2), 590. https://doi.org/10.1057/s41264-023-00223-x

78. Pascucci, F., Savelli, E., & Gistri, G. (2023). How digital technologies reshape marketing: evidence from a qualitative investigation. Italian Journal of Marketing. https://doi.org/10.1007/s43039-023-00063-6

79. Pereira, C. S., Durão, N., Moreira, F., & Veloso, B. (2022). The Importance of Digital Transformation in International Business. Sustainability, 14(2), 834. https://doi.org/10.3390/su14020834

80. Pescow, R. (2024). What Is Overhead? What Small Businesses Need to Know. https://www.nerdwallet.com/article/small-business/what-is-overhead-what-small-businesses-need-to-know

81. Phusavat, K., Rassameethes, B., Lesjak, D., & Chindavijak, C. (2018). Developing model for integrating sustainability into enterprise operations. International Journal of Management and Enterprise Development, 17(4), 329. https://doi.org/10.1504/ijmed.2018.096237

82. Pompeo, C. (2023). E-commerce Growth in Latin America. https://labsnews.com/en/news/business/brazil-argentina-and-mexico-ranked-in-the-top-10-countries-where-e-commerce-will-grow-fastest-in-2022/#:~:text=The%20whole%20of%20Latin%20America,drive%20%24167.81%20billion%20in%20purchases.&text=When%20looking%20at%20e-commerce,highest%20growth%20potential%20(20.4%25).

83. Poniščiaková, O., & Kicová, E. (2021). Modern Marketing Tools in the Condition of Globalization. SHS Web of Conferences, 92, 2053. https://doi.org/10.1051/shsconf/20219202053

84. Qalati, S. A., Fan, M., Zhou, J., Limón, M. L. S., & Chen, X. (2023). Editorial: Environment and organization sustainability: an employee perspective. In Frontiers in Psychology (Vol. 14). Frontiers Media. https://doi.org/10.3389/fpsyg.2023.1241653

85. Qin, Y., & Liu, H. (2022). Application of Value Stream Mapping in E-Commerce: A Case Study on an Amazon Retailer. Sustainability, 14(2), 713. https://doi.org/10.3390/su14020713

86. Ramanathan, U., He, Q., Subramanian, N., Gunasekaran, A., & Sarpong, D. (2023). Collaborative closed-loop supply chain framework for sustainable manufacturing: Evidence from the Indian packaging industry. Technological Forecasting and Social Change, 191, 122489. https://doi.org/10.1016/j.techfore.2023.122489

87. Rangel, A. (2019). Why enterprises need to adopt 'need-to-know' security. Computer Fraud & Security, 2019(12), 9. https://doi.org/10.1016/s1361-3723(19)30127-7

88. Rao, A., & Nayak, N. (2017). A study on the effectiveness of inventory management and control system in a milk producer organisation. International Journal of Logistics Systems and Management, 28(2), 253. https://doi.org/10.1504/ijlsm.2017.086361

89. Rhodes, J., Bergstrom, B., Lok, P., & Cheng, V. (2014). A framework for stakeholder engagement and sustainable development in MNCs. Journal of Global Responsibility, 5(1), 82. https://doi.org/10.1108/jgr-02-2014-0004

90. Rohendi, A. (2015). Consumer Protection in the E-Commerce: Indonesian Law and International Law Perspective. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2678754

91. Rowley, C., Saha, J. M., & Ang, D. (2012). The depths and heights of business sustainability. In Elsevier eBooks (p. 29). Elsevier BV. https://doi.org/10.1016/b978-1-84334-634-0.50002-0

92. Roy, M. (2023). Top Reasons Why an Online Business is the Best Investment. https://www.growth-hackers.net/top-reasons-why-online-business-best-investment/

93. Sanders, A. (2025). How the Right SEO Strategy Improves eCommerce Conversions. https://www.growth-hackers.net/seo-improves-ecommerce-conversion-rates/

94. Sari, R. K., Hermanus, D. R., Anjani, F. A., & Rosalia, V. (2021). TRAINING IN ADOPTION OF DIGITAL MARKETING TO INCREASE BRANDING AND INTAKE OF LANTERA BANGSA SCHOOL. ICCD, 3(1), 405. https://doi.org/10.33068/iccd.vol3.iss1.389

95. Saura, J. R., Palos-Sánchez, P. R., & Herráez, B. R. (2020). Digital Marketing for Sustainable Growth: Business Models and Online Campaigns Using Sustainable Strategies. Sustainability, 12(3), 1003. https://doi.org/10.3390/su12031003

96. Shajrawi, A. A. . I. ., & Khan, N. A. (2020). International Marketing in the Modern Era. International Research Journal on Advanced Science Hub, 2, 16. https://doi.org/10.47392/irjash.2020.227

97. Sinha, R. K. (2013). Supply Chain Management: A Case of Foodworld, Bangalore. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2291346

98. Soegoto, E. S., Christiani, A., & Oktafiani, D. (2018). Development of E-Commerce Technology in World of Online Business. IOP Conference Series Materials Science and Engineering, 407, 12031. https://doi.org/10.1088/1757-899x/407/1/012031

99. Soni, R. (2020). What is digital marketing. 6(3). https://j.vidhyayanaejournal.org/index.php/journal/article/view/91

100. Sorieul, R. (1999). Brief overview of international initiatives for an electronic commerce uniform legal framework/Apercu de quelques initiatives internationales pour un droit uniforme du commerce electronique. Uniform Law Review, 4(4), 908. https://doi.org/10.1093/ulr/4.4.908

101. Spanou, S. (2021). 20 Brick and Mortar Marketing Strategies That (Actually) Work. https://blog.contactpigeon.com/brick-and-mortar-marketing/

102. Stevens, C. (2020). Inventory Management. https://www.business.org/finance/inventory-management/what-is-inventory-management/

103. Strauss, J., & Frost, R. D. (2005). E-marketing. https://openlibrary.org/books/OL28973187M/E-Marketing

104. Suryono, R. R., Budi, I., & Purwandari, B. (2020). Challenges and Trends of Financial Technology (Fintech): A Systematic Literature Review. Information, 11(12), 590. https://doi.org/10.3390/info11120590

105. Svensson, G., Ferro-Soto, C., Høgevold, N. M., Padín, C., & Varela, J. C. S. (2018). Developing a theory of focal company business sustainability efforts in connection with supply chain stakeholders. Supply Chain Management An International Journal, 23(1), 16. https://doi.org/10.1108/scm-12-2015-0461

106. Sviatnenko, V. (2020, July 24). KEY COMPONENTS OF ESTABLISHING AN EFFECTIVE MANAGEMENT SYSTEM IN THE ORGANIZATION. THEORETICAL AND EMPIRICAL SCIENTIFIC RESEARCH: CONCEPT AND TRENDS VOLUME1. https://doi.org/10.36074/24.07.2020.v1.10

107. Taher, G. (2021). E-Commerce: Advantages and Limitations. International Journal of Academic Research in Accounting Finance and Management Sciences, 11(1). https://doi.org/10.6007/ijarafms/v11-i1/8987

108. Thun, T. W., Schneider, A. L., Kayser, C., & Zülch, H. (2024). The role of sustainability integration into the corporate strategy – A perspective on analysts' perceptions and buy recommendations. Heliyon, 10(3). https://doi.org/10.1016/j.heliyon.2024.e25008

109. Tiwari, A. (2023). E-commerce Revolution: Exploring the Impact of Online Shopping on Traditional Retail. International Journal for Research in Applied Science and Engineering Technology, 11(11), 2221. https://doi.org/10.22214/ijraset.2023.56923

110. Treece, D. (2024). Overhead Cost and How to Calculate It. https://www.business.com/articles/overhead-costs/

111. Truong, O.-D. (2024). Digital Transformation, a Competitive Advantage in all Markets. https://www.rcgt.com/en/insights/expert-advice/digital-transformation-competitive-advantage-markets/

112. UNCTAD. (2024). Digital Economy Report 2024: E-commerce and environmental sustainability. https://unctad.org/system/files/official-document/der2024_ch05_en.pdf

113. University of Phoenix. (2022). What is Google Analytics and why is it important for digital marketers? https://www.phoenix.edu/professional-development/blog/what-is-google-analytics/

114. Vernuccio, M., Cesareo, L., Pastore, A., & Kitchen, P. J. (2021). Managerial and organizational perspectives on online–offline integration within integrated marketing communication: toward a holistic conceptual framework. International Journal of Advertising, 41(3), 519. https://doi.org/10.1080/02650487.2021.1897432

115. Wadhwa, S., & Professor, A. (2023). Sustainable Management Practices: An Analytical Study of Balancing Profit and Purpose. 55(1). https://doi.org/10.48047/pne.2018.55.1.71

116. Wang, Y., Zhang, S., & Xu, S. (2022). Impact of Efficient Resource Management Practices on Sustainable Performance: Moderating Role of Innovative Culture-Evidence From Oil and Gas Firms. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.938247

117. Whitelock, V. (2019). Multidimensional environmental social governance sustainability framework: Integration, using a purchasing, operations, and supply chain management context. Sustainable Development, 27(5), 923. https://doi.org/10.1002/sd.1951

118. Yates, B. (2015). 3 Benefits of Having an Online Business. https://www.womenonbusiness.com/3-benefits-of-having-an-online-business/

119. Yeh, H., & Kuo, F. (2019). Empirical Effects of Online Retailing Recommendations. Journal of Psychology Research, 9(2). https://doi.org/10.17265/2159-5542/2019.02.004

120. Zeng, N., Zeng, D., Liu, A., & Jin, L. (2020). Drop-Shipping and Backup-Sourcing Strategies Under the Risk of Supply Disruption. IEEE Access, 8, 169496. https://doi.org/10.1109/access.2020.3018305

121. Zhang, S., & Zhang, J. (2019). Agency selling or reselling: E-tailer information sharing with supplier offline entry. European Journal of Operational Research, 280(1), 134. https://doi.org/10.1016/j.ejor.2019.07.003

122. Zhao, Y., Zhao, X., & Liu, Y. (2022). Exploring the Impact of Online and Offline Channel Advantages on Brand Relationship Performance: The Mediating Role of Consumer Perceived Value. Behavioral Sciences, 13(1), 16. https://doi.org/10.3390/bs13010016

ANNEXES

Questionnaire: DEVELOPMENT OF TRENDS OF ONLINE AND OFFLINE BUSINESS MANAGEMENT AND ASSESSMENT OF POSSIBLE PATHWAYSSUSTAINABLE STRATEGIES FOR MANAGING ONLINE AND OFFLINE BUSINESS OPERATIONS

This survey aims to gather insights on the management practices of online and offline businesses, focusing on operational differences, sustainability strategies, and the role of digital transformation in enhancing business performance. Your responses will contribute to valuable research in this field. Please answer all questions honestly, and all information will remain confidential.

Section 1: Demographic and Business Information

1. Role in the organization:

- - Owner/Founder
- - Manager
- - Executive
- - Staff
- - Other

2. Business model type:

- - Online
- - Offline
- - Hybrid (combination of online and offline)

3. Years in operation:

- - Less than 1 year
- - 1–3 years
- - 4–7 years
- - More than 7 years

4. Business size:

- - Small (1–10 employees)
- - Medium (11–50 employees)
- - Large (51+ employees)

5. Industry sector:

- - Retail
- - Manufacturing
- - Services
- - Technology
- - Agriculture
- - Other

Section 2: Operational Practices

6. Inventory and supply chain management method:

- - Manual/Traditional
- - Digital tools (ERP, SCM software)
- - Outsourced
- - Mixed approach

7. Top operational challenge:

- - Supply chain disruptions
- - Workforce management
- - Cost control
- - Technology integration

8. Primary mode of customer interaction:

- - Face-to-face
- - Digital/Online
- - Both

9. Level of digital tool usage in operations:

- - None
- - Low
- - Moderate
- - High

Section 3: Financial Management and Business Performance

10. Main revenue source:

- - In-store sales
- - Online sales
- - Subscriptions
- - Affiliate/Ad revenue
- - Mixed

11. Cost structure type:

- - Mostly fixed costs
- - Mostly variable costs
- - Balanced

12. Logistics management:

- - In-house
- - Outsourced
- - Combination

13. Revenue model:

- - One-time sales
- - Subscription-based
- - Advertising/affiliate
- - Mixed

14. Most significant difference in financial management between online and offline operations:

- - Revenue generation strategies
- - Cost structures (e.g., overhead costs, operational costs)
- - Profit margins
- - Financial sustainability
- - Other

15. Financial viability comparison of online vs offline models:

- - Online business generates higher profits
- - Offline business generates higher profits
- - Both models contribute equally
- - Unsure

16. Greater financial challenges in scaling:

- - Online business
- - Offline business
- - Both have similar challenges
- - Not sure

17. Impact of digital transformation on financial performance:

- - Highly improved
- - Somewhat improved
- - No significant change
- - Negatively impacted

Section 4: Sustainability Practices

18. Has your organization adopted sustainability practices?

- - Yes
- - No
- - In progress

19. Which sustainability practices have been adopted? (Select all that apply)

- - Reducing carbon emissions
- - Sustainable sourcing of materials
- - Energy efficiency in operations
- - Waste management and recycling
- - Ethical labor practices
- - Circular economy initiatives
- - Other

20. Ease of implementing sustainability practices:

- - Online business operations
- - Offline business operations
- - Both models equally
- - Unsure

21. Impact of sustainability practices on business performance:

- - Positively
- - No impact
- - Negatively
- - Unsure

22. Influence of sustainability on consumer preferences:

- - Significantly influence
- - Somewhat influence
- - No influence
- - Unsure

Section 5: Digitalization and Competitive Advantage

23. Integration of digital tools/technologies:

- - Yes
- - No
- - Planning to implement

24. Digital tools integrated (Select all that apply):

- - E-commerce platform

- - Cloud computing
- - CRM systems
- - Digital marketing tools
- - Remote work management tools
- - Other

25. Impact of digital transformation on competitive advantage:

- - Strongly enhanced
- - Somewhat enhanced
- - No impact
- - Reduced competitive advantage

26. Challenges in integrating digital technologies (Select all that apply):

- - High cost of implementation
- - Lack of skilled workforce
- - Resistance from employees
- - Integration with existing systems
- - Security and privacy concerns
- - Other

Section 6: Legal and Regulatory Compliance

27. Compliance with data protection regulations:

- - Not aware
- - Aware but not compliant
- - Partially compliant
- - Fully compliant

28. Use of compliance tools:

- - Yes
- - No
- - Not sure

29. Ethical standards monitoring:

- - Internal audit only
- - External audit
- - Both
- - None

Section 7: Comparative Insights and Outlook

30. Main advantage of your business model:

- - Cost efficiency
- - Customer reach
- - Personal service
- - Operational flexibility

31. Future strategy orientation:

- - Remain offline
- - Shift to online
- - Adopt hybrid model
- - Uncertain

32. Most significant factor for business success in next 5 years:

- - Digital transformation
- - Sustainability
- - Expansion of online models
- - Hybrid model integration
- - Other

33. What additional strategies or recommendations would you suggest to enhance business performance in both online and offline settings?

Conclusion

Thank you for completing this survey. Your insights will help us better understand how businesses can integrate sustainability practices, leverage digital tools, and optimize operations in both online and offline environments.