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Trust, Security, and Digital Readiness in B2B E-Business Adoption by MSMEs: An Integrated Framework

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Abstract

Purpose – This paper examines how trust, security, and digital readiness affect the adoption of B2B e-business by Micro, Small, and Medium Enterprises (MSMEs). It integrates these three dimensions as decisive enablers or barriers in B2B digital adoption.

Design/methodology/approach – A systematic literature review (SLR) was conducted using the SPAR-4-SLR protocol (Paul et al., 2021). This protocol includes three stages: Assembling (searching and identifying relevant literature), Arranging (screening and organising the studies), and Assessing (evaluating, analysing, and synthesising findings). A total of 140 peer-reviewed studies published between 1990 and 2023 were reviewed and coded against technology adoption frameworks such as TOE, TAM, DOI, and UTAUT, with emphasis on trust, security, and readiness in B2B adoption.

Findings – The review reveals that MSME adoption of B2B e-business strongly depends on their ability to establish trust in business relationships, ensure security of digital transactions, and maintain readiness through infrastructure, skills, and organisational capacity. Current research often treats these aspects separately, leading to fragmented insights

Research limitations/implications – Future studies should integrate trust, security, and readiness into process-oriented frameworks that capture the dynamics of MSME adoption in B2B contexts.

Practical implications – Policymakers and managers can use the proposed framework to develop initiatives on cyber security, digital literacy, supplier verification, and trust-building strategies for B2B platforms.

Originality/value – This study reframes MSME adoption challenges in B2B e-business through an integrated framework centred on trust, security, and readiness. By applying SPAR-4-SLR, it offers a transparent and management-oriented approach to literature synthesis.

Keywords: MSMEs, trust, security, digital readiness, B2B e-business adoption, SPAR-4-SLR protocol, integrated framework.
Type of paper: Research report.

1. Introduction

In many countries, the Micro, Small, and Medium Enterprises (MSME) sector is a major force behind global economic expansion. Recent advancements in e-marketplaces have ushered in a new era of consumer interactions and business operations, necessitating the

expansion of these digital platforms. These e-commerce platforms serve as essential intermediaries between buyers and sellers, facilitating the exchange of products, services, and money. The primary goal of the systematic literature is to examine the ways in which the MSME sector supports the growth of e-marketplaces. The MSME sector, which includes startups, small enterprises, and entrepreneurial endeavours, is crucial for promoting innovation, job creation, and general economic growth (Ayalu et al. 2022).

However, obstacles such as restricted access to markets, resources, and technology may impede their ability to expand and compete. MSMEs now have an unparalleled chance to tackle these issues because to the rise of e-marketplaces. E-marketplaces enable MSMEs to present their products worldwide, overcoming regional limitations, by creating a digital platform. According to Lahuerta-Otero et al. (2014), MSMEs have been able to enhance their market visibility, client base, and sales by switching from traditional brick-and-mortar settings to online platforms.

Micro, Small, and Medium Enterprises (MSMEs) are central to global economic growth, innovation, and employment. In the era of digitalisation, their adoption of B2B e-business platforms is critical for accessing wider markets, improving efficiency, and competing with larger firms. Despite these benefits, adoption levels remain uneven due to challenges related to trust, security, and digital readiness.

In B2B contexts, trust is essential for long-term inter-firm relationships. Security ensures the safety of transactions, data, and contracts. Readiness reflects the infrastructure, resources, and skills needed for MSMEs to engage in B2B e-business. This paper systematically reviews the literature using the SPAR-4-SLR protocol to answer three questions:
1. How does trust influence MSME adoption of B2B e-business?
2. What role does security play in shaping adoption decisions?
3. How does digital readiness enable MSMEs to succeed in B2B adoption?
This research makes four major contributions to the corpus of current work: First of all, it contributes to our understanding of the subject by offering a comprehensive overview of the current status of research on technology adoption in SMEs. Second, it presents a brand-new framework with eight kinds of significant ideas that have to be taken into account when thinking about how SMEs will use technology. Thirdly, this study makes use of the results of previous research to provide policymakers, entrepreneurs, and managers of SMEs useful assistance in making well-informed decisions, creating strategic plans, and creating technology adoption strategies for their companies. Lastly, it provides possible avenues for future research and elucidates the challenges and issues that SMEs are now encountering while integrating new technology.

The following sections outline the structure of this document: Finding earlier studies on the use of technology in SMEs is covered in detail in Section 2. The results of the investigation are presented in Section 3, and the conclusion is presented in Section 4. The paper's conclusion and several study directions are provided in Section 5.

2. Methodology

2.1 Systematic Literature Review (SLR) Methodology

This research adopts the SPAR-4-SLR protocol (Paul et al., 2021), designed for management and business systematic reviews. The protocol has three key stages:

- Assembling: Comprehensive database searches (Scopus, Web of Science, Emerald, IEEE, ScienceDirect) using terms such as trust, security, digital readiness, MSMEs, B2B e-business adoption.
- Arranging: Applying inclusion criteria (peer-reviewed, English, B2B focus, MSME adoption) and exclusion criteria (non-English, grey literature, unrelated fields).
- Assessing: Evaluating methodological quality, extracting key findings, categorising frameworks, and synthesising results across trust, security, and readiness themes.

From 1,600 initial records, 140 studies published between 1990 and 2023 were finalised for detailed analysis.

3 Review of Literature

3.1 MSME Sector Perspective: Because of its substantial contributions to economic growth, the MSME sector in Asian nations has attained considerable prominence. Several academic studies emphasise how important MSMEs are for things like export promotion, income distribution, and job creation (Liu et al., 2019). Limited access to financing is a persistent issue in this industry, which is frequently caused by severe collateral requirements and limited credit availability (Rao et al., 2017).

Significant barriers, such as insufficient infrastructure, outdated technology, and talent shortages, were noted in a recent research by Maheshkar and Soni (2022). According to Aguila et al. (2021), SMEs struggle with administrative procedures and compliance requirements, among other regulatory complexity. Increased market penetration, lower distribution and promotion costs, and fewer inventory markdowns are the obvious benefits for merchants (Larson, Paul D. 1990). Any successful firm might suffer from ignoring the need of establishing a dependable and effective supply chain. Nearly all businesses struggle with cost-effectiveness and performance (Kai Li et al., 2020), and internet marketplaces provide vital answers to assist them reach their objectives. E-marketplaces have become a driving force behind company relationships and collaboration, with mutually beneficial results. These online forums highlight the value of strategic relationships and alliances between manufacturers, distributors, and suppliers (Rohm et al., 2004). According to Standing et al. (2004), e-marketplaces enable SMEs to reach customers outside of their local territory and cross geographic borders. Additionally, e-marketplaces save expenses, remove middlemen, and improve operational efficiency (Thuong, 2002). E-commerce has been proved to have a big impact, changing ties inside businesses and revitalising connections between suppliers and buyers. In addition to changing these connections, it improves a business's primary operations and makes it easier to reach out to new customers or market niches online. E-marketplaces continue to hold promise despite early misgivings. While remaining optimistic about the sector's prospects, some have moderated their initial growth projections (Jap, 2002). Suppliers and buyers may be worried about antitrust, security, and integration difficulties. E-marketplaces that put an emphasis on ease of use and smooth integration, however, typically draw in both sides. Novel company concepts usually overcome short-term obstacles such complex convergence, slower acceptance rates than expected, and reluctance to change. In the end, the benefits of e-marketplaces—such as cost savings and increased efficiency—outweigh the drawbacks. It is generally expected that, when the main challenges are resolved and the economy stabilises, the convergence and acceptance of e-marketplaces would reinvent supply chain management. The cost-effectiveness and market penetration attained by e-marketplaces are simply unmatched by traditional supply chain methods (Bakos, 1998).

3.2 B2B E-Marketplaces: Business Model Analysis: Benefits and Challenges In recent decades, the usage of information systems that facilitate collaboration and communication between different organisations has rapidly increased due to the advancement of communication and information technology. These businesses interact and share information with their suppliers, clients, and other business associates using technology. IOIS are communications and information technology solutions that facilitate collaborative interactions between two or more organisations. The concept of a "inter-organizational system" was initially put out by Barrett and Konsynski in 1982. Numerous inter-organizational systems are currently in use, such as electronic data exchange (EDI), supply chain management systems, specialised industry-specific solutions, and electronic marketplaces for business-to-business transactions. Choudhury (1997) separated IOIS into three primary categories based on the characteristics of buyer-seller transactions: 1. Electronic Dyads: These are bilateral IOIS where a buyer or seller rationally establishes a personal connection with a selected group of counterparties. These relationships are established in order to trade particular goods or services. Electronic Data Interchange (EDI) is a prominent illustration of this category. 2. Multilateral IOIS: In contrast to a single logical inter-organizational link, multilateral IOIS allows a company to interact with an indefinite number of trading partners. Multilateral IOIS is best represented via B2B e-marketplaces. 3. Electronic monopolies: These are specialised IOIS that provide exclusive, sole-source contracts for a certain good or set of products. When it comes to electrical dyads, Choudhury (1997) noted that this category is a unique example.

3.3 The idea and features of the B2B electronic marketplace: Bakos provided a thorough definition of an electronic marketplace, also known as an e-marketplace, in 1991. This phrase refers to an advanced inter-organizational information system designed to let buyers and sellers share vital information about product offers and prices. The organisation responsible for overseeing this system may be an intermediary, which might be a collection of companies, an independent third party, or a market buyer or seller (Bakos, 1991). The primary objective of an online marketplace is to establish a two-way relationship between buyers and sellers. In its capacity as an economic organisation, it makes it easier for people to exchange information, goods, services, and money. Furthermore, by outlining the protocols and rules that govern these interactions, it creates the necessary framework (Madanmohan, 2005). Kaplan and Sawhney (2000) used the term "e-hubs" to describe unbiased online intermediaries. Some academics have different definitions for exchanges, e-hubs, and e-marketplaces, despite the fact that the terms are sometimes used interchangeably. Gulledge (2002) makes a useful distinction by explaining that an exchange is more expansive than a hub. Although an exchange can be used to facilitate spot purchases from a catalogue or to construct contracts through auctions, a hub's main responsibility is usually to carry out release or delivery orders in compliance with existing contracts. In the context of this study, "B2B e-marketplace" refers to online marketplaces and exchanges that facilitate a variety of transactions between a large number of buyers and sellers. Electronic markets possess the following five crucial characteristics, per Bakos (1991): 1. Consumers may find that using online marketplaces to compare the costs and product offerings of many providers results in lower expenses. By sharing information about their pricing and services with a larger audience, they also help suppliers save money. 2. Because each member benefits more from an electronic marketplace, it tends to grow more enticing as more enterprises participate. 3. The substantial switching costs associated with electronic markets may deter participants

from quitting the system. 4. Although these markets sometimes require large capital expenditures, they also provide significant economies of scale and scope, which might benefit all participants. 5. Potential users of online marketplaces often have significant concerns regarding the actual benefits of registering for a platform such as this. Even when an entity registers to utilise the platform, this ambiguity could still exist.

3.4 B2B e-marketplace classification and business models: Digital marketplaces (e-marketplaces) have several business models. They are defined by their services, electronic trading methods, ownership structure, items they allow trading for (direct or indirect), and sector. Transaction fees, software and technology licensing, hosting and integration fees, advertising, and advisory fees have all been collected by B2B e-marketplaces. Successful e-marketplaces use several income streams. E-marketplaces might be “neutral, industry-, consortium-, buyer-, or seller-hosted (Premkumar, 2003b).” Unbiased e-marketplaces, especially those administered by independent intermediaries, struggle to attract merchants and purchasers without sacrificing neutrality. Being "market makers" brings together both sides to the transaction, which benefits them. Buyer and seller-owned e-marketplaces are affected by sector concentration of significant suppliers or buyers. Process-focused e-marketplaces are favoured over activity-focused ones in long-standing collaborations (Dai et al. 2002). Successful e-marketplaces offer value while protecting market confidentiality. Biassed e-marketplaces (owned by buyers, sellers, or consortiums) have a better chance of success since their owners contribute enough transaction volume to assure liquidity. Successful seller-oriented e-marketplaces let many sellers promote their catalogues and do business with many customers. Process-oriented and impartial e-marketplaces work effectively with scattered customers and sellers (Madanmohan, 2005).

The commodities and market segments they serve can also classify e-marketplaces. Vertical e-marketplaces focus on medicines or textiles to solve industry-specific problems and improve the value chain. Conversely, horizontal e-marketplaces allow enterprises from many industries to transact online. Vertical portals are better at meeting sector-specific needs. Kaplan and Sawhney (2000) divided B2B e-marketplaces into four groups depending on what organisations buy (manufacturing or operations inputs) and how they get them (systematic vs. spot sourcing):
1. Repair centres (horizontal focus, organised sourcing, operational supply). 2. Performance managers (horizontal, spot, operational). 3. Cataloguing centres (vertical focus, systematic sourcing, manufacturing inputs). 4. Vertical emphasis, spot-sourcing, manufacturing inputs, exchanges. E-marketplaces may set pricing in digital brochures or through supplier or buyer auction (Grieger, 2003). Intermediaries find prices via electronic multi-vendor brochures, bidding, RFPs, digital markets, and dynamic pricing (Hadaya, 2004). Supply chains benefit from e-marketplaces' electronic catalogues, content management, hosting, transaction processing, credit verification, insurance, finance, logistics, system integration, and consultancy To improve business partner confidence, they might issue internal or external credit ratings. Participants get credit ratings from Indiamarkets.com and Dun & Bradstreet (Upadhyaya et al., 2006).

3.5 B2B e-marketplace Success and Technology Adoption in SMEs:
Digitalisation is a priority for many multinational companies. E-commerce is being employed by Micro, Small, and Medium-sized Enterprises (MSME) distribution networks, according to Dethine et al. (2020). Knowledge management requires acquisition and application, which

drives acceptability (Lin et al., 2014). Government officials created a balanced "carrot and stick" strategy to help MSME businesses compete in the digital economy. The "carrot" helps SMEs adopt digital technologies while reducing software and hardware expenses and offering high-speed internet networks. Small businesses can use the "stick" technique for taxation, licensing, and government procurement in e-government initiatives (Mazzaro, 2015). Technological improvements help and damage SMEs. According to Acılar and Karamaşa (2014), SMEs in developing nations have been slower to adopt ICTs than larger firms. In the digital age, small businesses in developing nations need e-commerce and digital potential expertise (Khayer et al. (2020)). Small firms and chambers of trade offer economical training (Lituchy and Rail, 2000).

E-marketplaces streamline transactional operations and procurement, according to Teck-Yong Eng (2004), transforming supply chain management. Kumar et al. (2009) show that e-marketplaces optimise supply chain value rather than replace integration efforts using a transition model that focusses readiness evaluation and commercial variables. Digitising supply chain management for SMEs saves money and improves buyer-supplier relations, according to Veronica et al. (2017). They recognise that ICT coordination costs need more research. Developing market enterprises face efficiency, competitiveness, and resource acquisition concerns. Todd et al. (2014) say ecological models can show a country's development stage-specific resource use and growth. E-commerce technology helps small and medium-sized firms save money, be more flexible, decrease mistakes, respond faster, and cut labour expenses by boosting IT utilisation, according to White et al. (2014). E-marketplace user experiences should be more conversational, according to Susena and Susanto (2019). Marketing and branding (Damodaran, 2019), customising and personalising products and services based on consumer preferences (Rao et al., 2003), and engaging customers help MSMEs leverage e-marketplaces. E-marketplace ecosystem partnerships can help MSMEs expand their markets and strengthen supply chains (Sharon Buteau, 2021).
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Despite their benefits, Donato Masi and Enrico Cagno (2015) found that MSMEs confront digital literacy and skills gaps among owners and employees. MSMEs cannot fully use e-marketplaces due to technical preparation, digital literacy, and IT infrastructure limits, according to Mattos (2023). MSMEs must manage trust, data privacy, competitiveness, price limits, and innovation in e-marketplace transactions (Jutla et al., 2002; Shaikh, 2021). MSMEs need excellent customer service, high-quality products, and unique value propositions (Hussein et al., 2020). E-marketplace operators may help MSMEs flourish by providing educational materials, training, technical assistance, and trust-building mechanisms including buyer protection and vendor verification (Kathleen P. King & John J. Foley, 2010). In conclusion, MSME e-marketplace trips have promise and challenges. E-marketplaces provide market access, operational efficiency, cost reduction, and external learning, but MSMEs face digital literacy, competitiveness, and trust challenges. Enabling policies and processes to simplify sector integration into the digital economy for development and success (Munoz-Pascual et al., 2021). Maroufkhani et al. (2020) say MSMEs boost technology adoption in manufacturing SMEs, highlighting their digital economy importance.

3.6 Barriers to MSMEs' usage of B2B e-marketplaces:

Businesses' digitisation initiatives have transformed the global commercial scene. Rahman et al. (2010). E-commerce is essential to MSME distribution networks, according to Dethine et al. (2020). Knowledge management requires knowledge acquisition and application, which

drives this development, according to Lin et al. (2014). In the digital era, MSME competition is crucial for employment and economic development, thus the government is using a "carrot and stick" approach. The "carrot" of this approach is initiatives to assist SMEs adopt digital technologies while lowering software and hardware expenses (Anatan et al. 2014). It also needs fast, high-quality broadband. Mazzaro (2015) says that e-government measures that enable small businesses to tax, licence, and acquire online are the "stick". Technology has a diverse impact on SMEs, as observed by Acılar and Karamaşa (2014). SMEs, particularly in developing countries, have adopted ICTs slower than large companies. To compete online, small businesses in developing countries must strengthen their e-commerce. Chambers of commerce and small company groups may offer cost-effective training to educate them with the essential skills, boost awareness of digital potential, and remove affordability constraints, according to Lituchy and Rail (2000).

E-marketplaces streamline transactional operations and procurement, according to Teck-Yong Eng (2004), transforming supply chain management. Kumar et al. (2009) recommend combining internal and external supply chain activities and sharing strategic insights to interact with e-marketplaces. E-marketplaces enhance supply chain value rather than replace integration. Digitalisation in SMEs' supply chain management and ICTs and electronic marketplaces' cost reductions and buyer-supplier interactions are stressed by Veronica et al. (2017). The high ICT coordination expenses require more investigation. Todd et al. (2014) say emerging market enterprises face efficiency, competitiveness, and resource acquisition concerns. Ecological models show a country's development stage-specific resource usage and growth tendencies, according to White et al. (2014). E-commerce technology saves SMEs money, boosts flexibility, eliminates errors, speeds up response times, and cuts personnel costs, according to White et al. (2014). IT utilisation boosts company productivity, according to Gimenez et al. (2012) and Flynn (2010). E-marketplace user experiences should be more conversational, according to Susena and Susanto (2019). MSMEs optimise e-marketplaces in several ways. To improve visibility, Damodaran (2019) prioritizes digital marketing and branding. Online presence requires well-designed websites, social media marketing, and SEO, according to Thomas Martin Key (2017).

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MSME success is achieved by customer preference-based customisation and customisation (Rao et al., 2003) and active customer participation with individualised contact and efficient service (Rambe et al., 2017). Sharon Buteau (2021) proposes MSMEs join the e-marketplace ecosystem to expand market reach, supply chain efficiency, and clientele. Logistics providers, equivalent service providers, or larger organisations offer order processing, payment systems, and computerised inventory management in these agreements, according to Amornkitvikai et al. (2022). Despite their advantages, Donato Masi and Enrico Cagno (2015) found that MSMEs' owners and personnel lack digital literacy and abilities. Mattos (2023) cites technical readiness, digital literacy, and IT infrastructure constraints as MSMEs' e-marketplace adoption hurdles. Jutla et al. (2002) advise MSMEs to develop trust and safeguard data while trading online. They must also cope with increased competition, price pressures, and the need for innovation from local and global rivals, according to Shaikh et al. (2021) and Amornkitvikai (2022). Hussein et al. (2020) say MSMEs must provide exceptional customer service, high-quality goods, and unique value propositions to stand apart. Kathleen P. King & John J. Foley (2010) think e-marketplace operators may aid MSMEs by providing instructional materials, training, technical assistance, and trust-building mechanisms including buyer protection programs and vendor verification. Finally, MSME e-

marketplace trip includes pros and cons (H.G. Lee & T.H. Clark, 1997). E-marketplaces provide market access, operational efficiency, cost reduction, and external learning, but MSMEs face digital literacy, competitiveness, and trust challenges. Their absorption into the digital marketplace and sector expansion need supporting policies and processes, according to Munoz-Pascual et al. (2021). Maroufkhani et al. (2020) noted that MSMEs helped manufacturing SMEs embrace technology, highlighting their importance in the digital economy.

3.7 The frameworks for theory to comprehend B2B e-marketplace adoption:

Companies' digitisation efforts have changed global business. (2010) Rahman et al. E-commerce is crucial in MSME distribution chains, say Dethine et al. (2020). Lin et al. (2014) argue knowledge management practices like acquisition and application drive this change. To generate employment and promote the economy, government authorities are utilising a "carrot and stick" strategy to keep MSME competitive in the digital age. The "carrot" of this approach is helping SMEs embrace digital technologies while cutting software and hardware costs (Anatan et al. 2014). It requires high-speed, high-quality broadband. Mazzaro (2015) calls e-government policies that let small enterprises tax, license, and purchase government items online "stick". The influence of technology on SMEs is multifaceted, as noted by Acılar and Karamaşa (2014). SMEs, especially in underdeveloped nations, have adopted ICT slower than major firms. In the digital era, developing country small companies must boost e-commerce. Chambers of commerce and small business organisations may provide reasonable training to educate skills, raise digital awareness, and address cost issues, according to Lituchy and Rail (2000).

According to Teck-Yong Eng (2004), e-marketplaces streamline transactional processes and procurement in supply chains. Kumar et al. (2009) suggest combining internal and external supply chain operations and sharing strategic insights to integrate with e-marketplaces. E-marketplaces benefit supply chains rather than replace integration. ICTs and electronic marketplaces save money and improve buyer-supplier interactions in SMEs' supply chains, according to Veronica et al. (2017). Significant ICT coordination costs need more examination. Todd et al. (2014) said developing market companies confront efficiency, competitiveness, and resource acquisition issues. White et al. (2014) suggest ecological models may indicate a country's development stage-specific resource utilisation and growth. White et al. (2014) claimed e-commerce technology saves SMEs money, improves flexibility, eliminates mistakes, accelerates response times, and reduces human expenses. IT improves organisational productivity, say Gimenez et al. (2012) and Flynn (2010). E-marketplaces should be more conversational, say Susena and Susanto (2019). MSMEs optimise e-marketplaces in different ways. Damodaran (2019) argues internet marketing and branding boost presence. Thomas Martin Key (2017) says online presence involves well-designed websites, social media marketing, and SEO.

MSME success is driven by customer preferences-based personalisation (Rao et al., 2003) and active customer engagement with personalised contact and efficient service (Rambe et al., 2017). MSMEs may increase market reach, supply chain efficiency, and client base by entering the e-marketplace ecosystem, according to Sharon Buteau (2021). Amornkitvikai et al. (2022) say logistics providers, similar service providers, or bigger firms provide order processing, payment systems, and computerised inventory management in these partnerships. Donato Masi and Enrico Cagno (2015) revealed that MSMEs' owners and staff lack digital

literacy and skills. Mattos (2023) says technical preparedness, digital literacy, and IT infrastructure restrict MSMEs' e-marketplace adoption. Jutla et al. (2002) advise MSMEs to build confidence and protect data while selling online. Shaikh et al. (2021) and Amornkitvikai et al. (2022) describe increasing competition, pricing pressures, and innovation from local and international competitors. Hussein et al. (2020) say MSMEs must stand out with great customer service, high-quality products, and distinctive value propositions. Kathleen P. King and John J. Foley (2010) believe e-marketplace operators may help MSMEs by offering instructional materials, training, technical support, and trust-building mechanisms including buyer protection programs and vendor verification. Finally, MSME e-marketplaces have pros and cons (H.G. Lee & T.H. Clark, 1997). MSMEs lack digital literacy, competitiveness, and trust, yet e-marketplaces provide market access, operational efficiency, cost reduction, and external learning. Munoz-Pascual et al. (2021) recommended supporting policies and methods for digital marketplace integration and sector growth. Maroufkhani et al. (2020) noted that MSMEs assisted manufacturing SMEs adopt technology, underscoring their significance in the digital economy.

3.7.1 Institutional Theory emphasises how institutional circumstances shape company behaviour and structure (Scott and Christensen, 1995; Scott, 2001). It claims that social, cultural, and legitimacy variables impact organisational decisions in addition to rational efficiency goals. Organisational legality and how legitimacy impacts norms and behaviours that are hard to change are central to institution theory (Scott, 2001). Suchman (1995) defines legitimacy as the agreement that an entity's actions adhere to socially constructed norms, values, beliefs, and definitions within a system. If entering an electronic market is to boost legitimacy, being there can help (Grewal et al., 2001). The theory states that isomorphic pressures and legitimacy drive organisational homogeneity (Dimaggio and Powell, 1983). This indicates that enterprises in the same market gradually adopt similar qualities due to customer expectations and competitive pressures to mimic industry leaders. Organisations typically deploy e-commerce due to external isomorphic pressures from competitors, business partners, customers, and regulations (Oliveira and Martins, 2011). Thus, institutional theory illuminates how competitors and trading partners might influence an organization's innovation decision. Dimaggio and Powell (1983) established three forces—coercive, mimicking, and normative—that cause organisations to copy their peers.

3.7.2 IT specialists studying cross-organizational systems are interested in Transaction Cost Theory. Institutional theory emphasises organisational legitimacy, while transaction cost theory prioritises efficiency. Transaction cost analysis began with Coase (1992) and Williamson (1975, 1985). Coase (1937) proposed that markets and firms have distinct governance systems and transaction costs. According to him, doing business inside a corporation may be cheaper than outside a market.

Human information processing is limited by bounded rationality, according to Barney (1990). Opportunism assumes decision-makers would unscrupulously prioritise their own interests when given the chance, making it hard to forecast who to trust (Barney, 1990). TCA was driven by environmental unpredictability, behavioural uncertainty, and asset uniqueness and its governance framework. Transaction cost theory states that asset specificity and uncertainty strongly influence governance structures (Rindfleisch and Heide, 1997).

3.7.3 Transaction cost analysis has been used in several studies on interorganisational interactions, with the independent variables operationalised differently. Choudhury (1997) stated that demand uncertainty and market unpredictability may impact Inter-Organizational

Information System selection. According to Malone et al. (1987), electronic hierarchies are best for complex descriptions and high asset specificity. However, internet markets are better for other purchases. In their aeroplane components sector investigation, Choudhury (1997) found that only a small fraction of transactions were performed utilising electronic platforms, despite extensive descriptions and low asset specificity. This proposes studying product qualities and their implications on business-to-business trading in diverse circumstances.

3.7.4 Fleischer and Tornatzky's 1990 Technology Organisation and Environment (TOE) Framework emphasises three key factors that affect an organization's technology adoption.
The technical background includes the company's internal and external technology. This comprises company-owned and market-available technology.2. Organisational environment includes the organization's size, scope, leadership structure, and internal resources like spare capacity.3. The environmental context includes the business's operating environment. This includes sector, competitiveness, and government ties (Tornatzky and Fleischer, 1990).

Table 1: Adoption Theories

Sl.No	Theories	Main Findings	Authors
1.	Unified Theory Of Acceptance And Use Of Technology	The UTAUT paradigm includes performance and effort expectations, social influence, and enabling situations. UTAUT also introduces four organisational moderators—age, gender, experience, and volition. These criteria help predict user behaviour, technology adoption, and usage.	Venkatesh et al.(2003)
2.	Diffusion of Innovation Theory	Claims that trialability, observability, complexity, compatibility, and relative benefit influence innovation adoption. Relative advantage measures how much an invention is better than the ideas, products, or services it replaces.	Rogers (1995)
3.	Technology Acceptance Model	The TAM has two key aspects. The first, Estimated Utility (PU), assesses how much a person thinks a technology will improve their performance. The second is EOU, which	Davis (1989)

		measures how simple the user anticipates to use the technology.	
4.	Institutional Theory	Institutional Theory, which emphasises how competitors and business partners affect an organization's innovation uptake. It emphasises normative, coercive, and mimetic forces. It may encourage firms to copy other companies' strategies. (1983, Dimaggio and Powell).	Teo et al. (2003)
5.	Transaction Cost Theory	Corporations and markets are alternative governance structures with differing transaction costs, according to Coase's 1937 thesis. Coase believes that in some cases, corporate economic contacts may be more expensive than market transactions. Williamson (1975) adds opportunity costs to this paradigm by considering bad governance decisions.	Coase (1992)
6.	Technology–organization–environment framework	The Fleischer and Tornetzky (1990) framework has three dimensions: organisational, environmental, and technical. These dimensions influence how firms adopt new technology.	Fleischer and Tornetzky (1990).

4 Qualitative analysis

4.1 Organizations' e-business adoption: Findings from linked studies: Many electronic business researches studies have used theoretical frameworks like the TOE framework and the Diffusion of Innovation framework. Many research has used these frameworks, but a few, like Teo et al. (2003), have used institutional theory to determine the factors of inter-organizational system adoption. Table 2 summarizes this research on electronic business adoption.

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Table 2: Timeline of Literature on Organizational Adoption of E-Business

Author	Context and Scope	Findings
Teo et al. (2003)	"Exploring the Intentions of Non-Adopters in Singapore to Embrace Financial Electronic Data Interchange (FEDI)	The results indicate that normative, coercive, and mimetic institutional influences greatly affected firms' FEDI intentions.
Moodley (2003)	The Uptake of E-commerce in the South African Manufacturing Sector: A Study of 120 Firms	Industrial B2B e-commerce is new in South Africa. Efficiency gains in the B2B electronic marketplace depend on an organization's ability to build trust and confidence with suppliers and customers.
Zhu et al. (2004)	Evaluating E-commerce Adoption in the Financial Services Industry: Insights from 612 Firms Across 10 Countries	This study uses the Technology Organisation Environment (TOE) paradigm to find that financial resources, global reach, technical preparation, and regulatory environment impact e-business value. Competition influences adoption, but an organization's resources determine e-business value.
Teo and Ranganathan (2004)	Examining the Adoption of Business-to-Business (B2B) E-commerce in Singapore: A Study of 108 Firms	Small B2B e-commerce adoption was identified. One of the biggest obstacles to B2B electronic commerce is estimating advantages, exposing corporate systems to suppliers and consumers, and finding time to learn new skills.
Moodley and Morris (2004)	An Empirical Study Conducted via 32 Interviews with South African Exporters of Garments	Limited e-commerce uptake and use. Trading interactions need complex information sharing and personalised goods. B2B e-commerce has neither reduced transaction costs or created new possibilities.
Molla and Licker (2005b)	Empirical Research Involving 150 South African Firms	This research develops and experimentally tests a model that focusses on organisations' perceived preparedness and their external environment, including innovation, management, organisation, and the environment. These variables are examined as e-commerce adoption and

		institutionalisation factors..
Kramer et al. (2005)	An Empirical Study Involving 2,139 Firms across 10 Countries	This research develops and experimentally tests a model that focusses on organisations' perceived preparedness and their external environment, including innovation, management, organisation, and the environment. These variables are examined as e-commerce adoption and institutionalisation factors.
Hsu et al. (2006)	Empirical Research Focusing on 294 Large Firms in the United States	Globalisation is making e-commerce more popular and improving coordination, efficiency, and market impacts, according to their research. Higher e-commerce use is associated with better corporate success in all three categories. Even though globalisation affects B2C and B2B e-commerce differently, internationally integrated organisations are more likely to participate in B2B.
Zhu et al. (2006)	An Empirical Investigation Including 1,857 Companies in 10 Countries	Government pressure determines the amount of e-business activities, while trade partner pressure encourages diversity.
Chong et al. (2009)	Analyzing 109 Malaysian Electronics and Electrical Industry Firms' Adoption of Collaborative Commerce”	Information sharing culture had the biggest impact on c-commerce adoption, followed by organisational preparation and the external environment. This study found that innovative features did not affect e-commerce adoption, contradicting earlier technology adoption studies.

Current literature identifies external environmental influences, internal organisational issues, and technology features. These variables affect electronic commerce adoption. Molla and Licker (2005b) created a methodology to investigate developing-nation firms' e-commerce adoption. According to the study, perceived environment e-readiness (PEER) and perceived organisation e-readiness (POER) strongly affect early adoption and institutionalisation of electronic commerce in organisations. Many studies suggest that small and large companies use e-business differently (Macgregor and Vrazalic, 2005). Small businesses make judgements based on certain features. Centralised management gives owners a lot of input in

choices in these organisations. Small businesses may assess without much research (Bunker and MacGregor, 2000). Smaller companies have less control over their external environment, causing unpredictability (Hill and Stewart, 2000). Bunker and MacGregor (2000) say small enterprises have fewer goods and services and prefer market presence above dominance. Grey et al. (2005) found that small businesses survive by building long-term buyer-supplier relationships with a few important customers in B2B transactions. Long-term B2B contracts provide several advantages. Price stability, customisation, production coordination information sharing, and decreased transaction and agency costs (Grey et al., 2005). Iacovou et al. (1995) pioneered this concept for small businesses. They created an EDI analysis model for small enterprises. EDI adoption was positively connected with perceived benefits by Iacovou et al. (1995).

However, they found that external pressure was the biggest determinant in small firms' EDI adoption, not organisational preparation. This is expected as larger customers encourage EDI adoption to streamline supplier interactions. Iacovou et al. (1995) classified adopters as unprepared, ready, compelled, and uninspired based on these criteria. Numerous studies have evaluated small enterprises' e-business utilisation. Table 3 summarises these studies. Small business adoption of e-business has three primary themes of study: adoption characteristics, electronic business drivers/enablers and barriers/inhibitors, and e-commerce use levels and trends. These studies agree with Iacovou et al. (1995), Mehrtens et al. (2001), Grandon and Pearson (2004a), and Looi (2005) that outside pressure affects SMEs' internet and electronic commerce use. They have also stressed that small firms seldom use internet trade, as indicated by Beveren and Thompson (2002), and that it has little benefits, as agreed upon by Al-Qirim (2007). Levy and colleagues (2005) discovered that strategic purpose influences UK SMEs' e-business decisions. They found that SMEs that stay in their markets invest less and that product innovation, not market expansion, drives e-business. Stockdale and Standing's (2004) qualitative study revealed Australia's B2B e-marketplaces' pros and cons.

Table 3: Timeline of Modern Research on E-business Adoption in Small Enterprises

Author	Context and Scope	Findings
Iacovou et al. (1995)	"Examining the Adoption of EDI in British Columbia's Small and Medium-Sized Businesses: A Comprehensive Study Using Detailed Case Studies of Seven Companies	Developed a methodology to study EDI adoption in small businesses, allowing for organisation preparedness, outside factors, and perceived advantages.
Mehrtens et al. (2001)	SMEs' embrace of the internet	Determined that the perceived advantages, organizational preparedness, and outside pressure all play a role in SMEs' decisions to use the internet.
Korchak and Rodman (2001)	114 Small-Scale Manufacturers Across the United States Have Integrated E-Business	SMEs with more employees are more likely to use e-business. SMEs might be disengaged, progressive, advanced, or delayed

		adopters.
Daniel and Wilson (2002)	E-commerce Adoption within a Cohort of 678 UK Small and Medium-sized Enterprises	Competitive pressure drove UK SMEs to adopt e-commerce. SME gains were greatest in information exchange and communication.
Beveren and Thompson (2002)	E-commerce Adoption in 179 Australian Small and Medium Enterprises	Limited e-commerce adoption among SMEs, with business size being a key factor in e-commerce adoption.
Rao et al. (2003)	An In-depth Qualitative Examination of E-commerce Advancements within the United States Context	Recognised SMEs' e-commerce adoption via four stages: establishment, portal construction, transaction integration, and enterprise integration. Also discovered stage-specific obstacles and facilitators.
Grandon and Pearson (2004a)	The Incorporation of E-commerce in 83 Small and Medium-sized Enterprises in Chile	Chilean SMEs want to deploy e-commerce and have the funds and technology. They view e-commerce as reasonable and useful and believe external causes are driving its use..
Jon et al. (2001)	E-commerce adoption in Singaporean SMEs	The results suggest that SMEs' e-commerce adoption is driven by owner-manager motivation and control. This is followed by the owner-manager's risk-taking propensity, the perceived intricacy of e-commerce, market dynamics, perceived comparative advantages, and government policies and support.
Levy et al., (2005)	E-business Adoption in 354 UK Small Enterprises	Strategic aim strongly influences e-business investment decisions, according to their research. They also identified the primary factors boosting and hindering SMEs' e-business adoption.
Kaynak et al. (2005)	E-commerce integration within 237 small and medium-sized manufacturing enterprises in Turkey.	The adoption of electronic commerce (EC) was strongly affected by perceived benefits, but not by perceived drawbacks. The study also found that business or industry-specific characteristics did not affect EC adoption, except than export development resource

		distribution.
Looi(2005)	E-commerce integration in a cohort of 184 Small and Medium-sized Enterprises (SMEs) in Brunei Darussalam.	The adoption of electronic commerce was primarily driven by competitive pressure; government support, IT know-how, relative advantage, and security followed in decreasing order of importance.
Macgregor and Vrazalic (2005)	Challenges hindering e-commerce adoption within a group of 477 SMEs that have not yet adopted e-commerce in both Sweden and Australia.	It was discovered that the two main obstacles to the adoption of e-commerce are "too difficult to use" and "not suitable".
Jeon et al., (2006)	E-business adoption within a cohort of 204 small and medium-sized enterprises in Korea.	Based on data from 94 non-adopting SMEs and 110 adopting SMEs, the CEO's IT competence, perceived relative advantage, government aid, globalisation plan, and North Korean worries influenced adoption. Industry competitiveness, company size, and cost seemed to have less of an influence on e-business adoption.
Stockdale and Standing (2006)	A government-funded research project in Australia that focuses on a qualitative investigation of e-commerce adoption.	Small and medium-sized firms (SMEs) see internet business differently depending on their motivations. The authors classified SMEs into five kinds. The authors recommend targeting 'Paddlers' and 'Waders' in adoption initiatives.
Al-Qirim (2007)	E-commerce adoption among small enterprises in New Zealand, as investigated through a focus group comprising 6 Micro, Small, and Medium Enterprises (MSMEs).	Organisational, technological, environmental, and personal variables affected e-commerce adoption, according to the research. The analysis found that New Zealand SMEs used e-commerce at a low rate. Additionally, SMEs experienced little return on their e-commerce efforts.
Lohrke et al. (2006)	The utilization of the internet by 42 small and medium-sized enterprises (SMEs) in the United States, analyzed through the lens of transaction	Found that SMEs with high information specificity use the internet more.

	cost analysis.	
Servais et al. (2006)	Small Manufacturing Firms' Involvement in International E-business Activities	Born-global enterprises create their brand online but only sell directly to clients. Their major reason for utilising the internet is to strengthen business contacts.
Simmons et al. (2007)	The integration of the internet within the agri-food industry in Northern Ireland, as observed among a sample of 50 small and medium-sized enterprises (SMEs).	Acknowledges that industry standards and marketing skills drive internet use among agri-food SMEs.
Martins and Oliveira (2009)	The incorporation of e-commerce within a group of 3,125 small businesses in Portugal.	Use the TOE framework to identify small enterprises' e-commerce adoption determinants. Based on adoption stage, TOE factors have varied consequences.
Alam et al. (2011)	An empirical investigation into the adoption of e-commerce among 200 small and medium-sized enterprises (SMEs) in Malaysia."	The adoption of e-commerce was shown to be significantly influenced by relative benefit, compatibility, organizational readiness, management styles, and security.

4.2 Results from related research on the use of B2B e-marketplaces by organizations

Institutional, transaction cost, and other theories using DOI and TOE frameworks have been used to study B2B e-marketplace adoption. According to Grewal et al. (2001) and Son and Benbasat (2007), enterprises utilise e-marketplaces for efficiency and legality. Table 4 presents empirical B2B e-marketplace adoption research. Few studies have examined small businesses' B2B e-marketplace utilisation. Recent SME B2B e-marketplace adoption studies include Chong et al. (2011) on Chinese SMEs, Lin et al. (2011) on Australian SMEs, and Saprikis and Vlachopoulou (2012) on Greek SMEs. Chong et al. (2014) studied 114 Chinese SMEs in B2B e-marketplaces and found success criteria. Studies show that supply chain capabilities, security and trust, information transparency, IS/IT infrastructure, and top management support influence Chinese SMEs' B2B e-commerce success. Culture, government assistance, and global competitiveness are external factors. Through content analysis of 155 high-performing Chinese SME B2B online suppliers, Wang et al. (2011) revealed that the first generation possessed organisational skills to succeed online and boost sales. They included e-commerce management, internet marketing, and product production. Supplier adoption depends on external events, organisational problems, and e-marketplace traits (Sapikis & Vlachopoulou, 2012). Their empirical research of 87 Greek supplier adopters of B2B e-marketplaces indicated that ownership status, operating restrictions, service offers, and participating enterprises' characteristics affected participation more than internal and external variables. Lin et al. (2011) discovered that B2B benefits moderated the

relationship between IT investments and B2B website adoption satisfaction among 198 Australian SMEs.

Table 4: A timeline of the most recent research on the use of B2B e-marketplaces by academics.

Author	Context and Scope	Findings
Grewal et al. (2001)	A study of 306 jewellery industry users' B2B e-marketplace adoption characteristics.	They designed and empirically verified an institutional theory-transaction cost model. The notion states that environmental dynamic, motive (efficiency and legitimacy), and ability (IT capabilities, learning) affect an organization's electronic market involvement.
Joo and Kim (2004)	Exploring corporate e-marketplace adoption variables empirically. This survey included 39 South Korean industrial enterprises.	Innovation theory is used to examine the relationship between innovation, organisational environment, features, and e-marketplace adoption. The data suggest that organisational size and external variables determine e-marketplace adoption more than relative advantage..
Hadaya (2004)	An empirical study of corporate e-marketplace adoption determinants. A survey of 39 South Korean manufacturing enterprises was conducted.	How a corporation uses e-marketplaces depends on its e-commerce history and commercial ties. The complexity of e-commerce installation is negatively correlated with future e-marketplace use.
Son and Benbasat (2007)	Studying what motivates corporate e-marketplace adoption. This research included 39 South Korean industrial businesses.	Efficiency factors such product features, demand uncertainty, and market instability greatly influenced adoption intent and participation. Normative and mimetic pressures and their components impacted adoption intent but not participation rates..
Loukis et al. (2011)	Research on corporate e-marketplace adoption determinants. 39 South Korean industrial enterprises were studied.	We found nine drawbacks and seven benefits to adopting e-marketplaces in aerospace, especially for large companies.

4.3 Factors impacting MSMEs' use of B2B e-marketplace

All corporate functions are online at electronic company. Supplier and partner collaboration and internal management are components of e-business. E-commerce involves computerised product and service exchanges across networks, the Internet, and other digital technologies.

Marketing, customer support, shipping, and payment processing are covered, according Laudon & Laudon (2004). Because e-marketplaces are part of electronic business adoption by big and small firms, this research evaluates the literature. To understand B2B e-marketplace adoption determinants. This research defines "adoption" as corporate practices like adopting and utilising B2B e-marketplaces often. Non-use of B2B e-marketplaces is opposite adoption. This hypothesis fits Driedonks et al. (2005). The literature review reveals how hard it is to develop a universal innovation uptake hypothesis. Theory and framework may need to be altered for the innovation and situation (Molla and Licker, 2005). The research categorised 140 publications' findings by subject. Eight primary groupings of evaluated articles developed. Multiple-goal papers were classed in all relevant categories. Table 5 lists section highlights. The findings were qualitatively assessed for strength, content validity, bias, and application.

Table 5: Constructs Driving MSME B2B E-Business Adoption

Sl. No	Constructs	Description	Sub-Constructs	Trust / Security / Readiness Dimension	References
1	Organisational Factors	Adoption decisions depend on internal human, technological, and commercial resources.	Human, Technological & Business Resources	Readiness	Molla & Licker (2005)
2	Mimetic Pressures	Firms imitate competitors who adopt digital platforms successfully, building trust through imitation.	Competitors' Adoption, Competitors' Success	Trust	Teo et al. (2003)
3	Coercive Pressure	External enforcement from laws, customers, or suppliers compels technology adoption and security focus.	Customer Dominance, Supplier Dominance	Security / Trust	Teo et al. (2003)
4	Normative Pressure	Professional norms and industry standards push firms toward	Supplier Adoption Rates, Customer Adoption	Trust	Teo et al. (2003)

		adoption, strengthening trust and legitimacy.	Rates		
5	Demand Uncertainty	Uncertainty in frequency and volume of transactions increases need for secure and flexible systems.	Uncertain Demand Patterns	Security	Son & Benbasat (2007)
6	Perceived Relative Advantage	Firms adopt when new technology offers superiority over prior methods in cost, efficiency, or outcomes.	-	Readiness	Rogers (1995)
7	Performance Expectancy	Adoption is influenced by belief that technology improves productivity and business performance.	-	Readiness	Venkatesh et al. (2003)
8	Effort Expectancy	Technology is adopted if ease of use and required effort are manageable relative to rewards.	-	Readiness	Venkatesh et al. (2003)

- **Organisation Factors (Readiness)**

A company's internal resources—financial, human, and technical—directly influence its ability to adopt B2B e-business. According to Molla and Licker (2005b), organisational readiness in developing countries depends on computerisation, network-based familiarity, workforce skills, and financial strength. Moini and Tesar (2005) confirm that SME internet usage correlates with firm size and resources. Limited organisational resources remain one of the greatest barriers to digital adoption (Mehrtens et al., 2001; Grandon & Pearson, 2004a).

- **Mimetic Pressures (Trust Dimension)**

Institutional theory suggests that firms imitate structurally similar organisations to reduce uncertainty (Dimaggio & Powell, 1983). In B2B markets, competitors' adoption and perceived success encourage MSMEs to trust digital platforms. Mimetic adoption signals

market acceptance and reduces perceived risk for late adopters (Burt, 1987; Teo et al., 2003). This is particularly relevant for risk-averse MSMEs seeking validated models.

- **Coercive Pressures (Trust & Security Dimension)**

External regulatory, supplier, and customer demands create coercive pressures that drive adoption. For instance, dominant buyers or suppliers may enforce digital compliance (Teo et al., 2003). MSMEs reliant on such stakeholders adopt secure systems to avoid penalties or market exclusion. Institutional pressures (Dimaggio & Powell, 1983) reinforce the role of coercion in ensuring security compliance and trust in digital networks.

- **Normative Pressures (Trust Dimension)**

Professional associations, trade bodies, and industry networks exert normative pressures on MSMEs. Organisations often adopt innovations when their suppliers and customers have already embraced them (Burt, 1982; Powell & Dimaggio, 1991). These pressures create a trust-based legitimacy effect, where digital adoption becomes an industry norm. Teo et al. (2003) found that MSMEs experience greater normative pressure when key supply-chain partners adopt digital technologies.

- **Demand Uncertainty (Security Dimension)**

High uncertainty in purchase frequency and volume can discourage MSMEs from using B2B e-marketplaces (Son & Benbasat, 2007). Firms facing unpredictable demand perceive greater risk, leading to concerns about transaction security and system stability. Addressing uncertainty with secure, reliable platforms is critical to enhance adoption confidence.

- **Perceived Relative Advantage (Readiness)**

The degree to which MSMEs perceive digital adoption as superior to traditional methods strongly affects adoption. Rogers (1995) defined relative advantage as the perceived improvement in cost, efficiency, or competitiveness. Jeon et al. (2006) found that SMEs in Australia adopted e-marketplaces primarily due to perceived usefulness and benefits. MSMEs are more willing to engage in B2B e-business when the advantages outweigh legacy systems.

- **Performance Expectancy (Readiness)**

Performance expectancy reflects the belief that digital adoption will enhance business outcomes. Venkatesh et al. (2003) emphasised this construct in the UTAUT model. For MSMEs, B2B e-business platforms are adopted when they improve efficiency, productivity, and decision-making. Empirical studies highlight that perceived performance gains are among the strongest motivators of readiness.

- **Effort Expectancy (Readiness)**

Effort expectancy refers to the perceived ease of use of technology (Venkatesh et al., 2003). MSMEs adopt systems that minimise complexity and reduce training costs. Ease of integration with existing workflows lowers resistance and enhances readiness. Venkatesh et al. (2011) argued that technology adoption models must evolve to incorporate multiple frameworks (TOE, TAM, DOI, Institutional Theory, UTAUT) since no single theory captures all influences.

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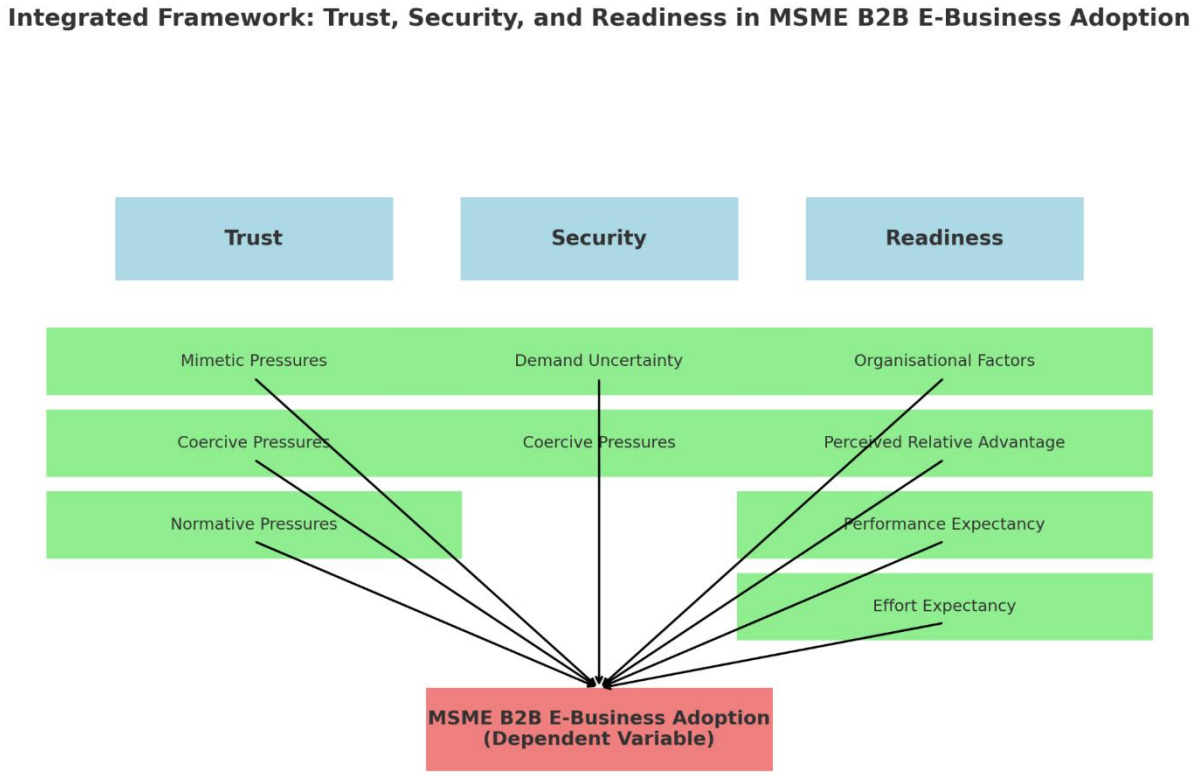

Figure 1.

5.0 Conclusion and Implications

This study develops an integrated framework that highlights how trust, security, and digital readiness collectively influence MSMEs' adoption of B2B e-business. Unlike prior studies that relied on single theoretical models, this research draws from multiple perspectives—Institutional Theory, TOE, DOI, TAM, and UTAUT—to capture the multidimensional nature of adoption.

The findings suggest that trust-related pressures (mimetic, normative, and coercive) encourage MSMEs to imitate competitors, conform to industry norms, and respond to stakeholder demands. Security concerns such as demand uncertainty and regulatory enforcement remain critical barriers, requiring robust safeguards to build confidence in digital platforms. Meanwhile, organisational readiness factors, including resources, perceived relative advantage, performance expectancy, and effort expectancy, strongly shape the internal willingness of MSMEs to embrace B2B e-business models.

By synthesising these constructs, the framework provides a comprehensive understanding of how MSMEs balance external pressures and internal capabilities when transitioning toward digital ecosystems.

5.1 Theoretical Implications

Integrated Perspective – The study demonstrates that no single theory sufficiently explains MSME adoption; instead, an integrated framework combining trust, security, and readiness dimensions offers a more holistic view.

Institutional Forces and Readiness – It advances institutional theory by linking coercive, mimetic, and normative pressures with digital readiness constructs, showing that external pressures must be matched by internal preparedness.

Expansion of Adoption Models – By incorporating security-related constructs (e.g., demand uncertainty), the framework extends traditional innovation adoption models which often overlook risk perception in B2B contexts.

5.2 Practical Implications

For Policymakers – Policies must strengthen digital trust and security infrastructure, particularly for MSMEs with limited resources, through data protection laws, certifications, and incentives for compliance.

For MSME Managers – Firms should invest in organisational readiness (skilled workforce, IT infrastructure, financial planning) to reduce adoption barriers and fully leverage B2B e-business opportunities.

For Technology Providers – Platforms targeting MSMEs must emphasise ease of use (effort expectancy) and clearly demonstrate performance benefits to enhance adoption likelihood.

For Industry Networks – Trade associations and supply-chain leaders can accelerate adoption by setting digital norms, sharing success stories, and reducing uncertainty through collaborative standards.

References

1. Ab Rahman, Mohd & Wasilan, Harlina & Ghani, Jaharah. (2010). Barriers of SCM in SMEs. *Applied Mechanics and Materials*, 44-47, 3997-4001. https://doi.org/10.4028/www.scientific.net/AMM.44-47.3997
2. Acilar, Ali & Karamaşa, Çağlar. (2010).Factors affecting the adoption of e-commerce by small businesses: A case study. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1700643
3. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211. https://doi.org/10.1016/0749-5978(91)90020-T
4. Alam, S.S., Ali, M.Y. and Jani, M.F.M. (2011).An empirical study of factors affecting electronic commerce adoption among SMEs in Malaysia. *Journal of Business Economics and Management*, 12(2), 375-399. https://doi.org/10.3846/16111699.2011.576749
5. Al-Qirim, Nabeel. (2007). The adoption of eCommerce communications and applications technologies in small businesses in New Zealand. *Electronic Commerce Research and Applications*, 6(4), 462-473. https://doi.org/10.1016/j.elerap.2007.02.012
6. Amornkitvikai, Yot & Tham, Siew & Harvie, Charles & Buachoom, Wonlop. (2022). Barriers and factors affecting the e-commerce sustainability of Thai micro-, small-, and medium-sized enterprises (MSMEs). *Sustainability*, 14(14), 8476. https://doi.org/10.3390/su14148476

7. Anatan, Lina, and Nur. 2023. Micro, small, and medium enterprises' readiness for digital transformation in Indonesia. *Economies*, 11(6), 156. https://doi.org/10.3390/economies11060156
8. Ayalu, Getachew & Abbay, Aradom & Azadi, Hossein. (2022). The role of micro- and small-scale enterprises in enhancing sustainable community livelihood: Tigray, Ethiopia. *Environment, Development and Sustainability*, 25, 1-24. https://doi.org/10.1007/s10668-022-02359-7
9. Bakos, Yannis (1998). The emerging role of electronic marketplaces on the Internet. *Communications of the ACM*, 41(8), 35-42. https://doi.org/10.1145/280324.280330
10. Barbara B. Flynn; Baofeng Huo; Xiande Zhao (2010). The impact of supply chain integration on performance: A contingency and configuration approach. *Journal of Operations Management*, 28(1), 58-71. https://doi.org/10.1016/j.jom.2009.06.001
11. Benjamin Dethine, Manon Enjolras, Davy Monticolo (2020). Digitalization and SMEs' export management: Impacts on resources and capabilities. *Technology Innovation Management Review*, 10, 18-34. https://doi.org/10.22215/timreview/1344
12. Beveren V. and Thompson H. (2002). Use of electronic commerce by SMEs in Victoria, Australia. *Journal of Small Business Management*, 40(3), 250-253. https://doi.org/10.1111/1540-627X.00054
13. Bunker, D.J. and MacGregor, R.C. (2000). Successful generation of information technology (IT) requirements for small/medium enterprises (SME's) – cases from regional Australia. In *Proceedings of SMEs in a Global Economy*, Wollongong, 72-84.
14. Burt, R. S. (1982). Toward a structural theory of action: Network models of social structure, perception, and action. New York: Academic Press.
15. Burt, R. S. (1987). Social contagion and innovation: Cohesion versus structural equivalence. *American Journal of Sociology*, 92(6), 1287-1335. https://doi.org/10.1086/228667
16. Buteau, S. (2021). Roadmap for digital technology to foster India's MSME ecosystem—opportunities and challenges. *CSIT*, 9, 233-244. https://doi.org/10.1007/s40012-021-00345-4
17. Cagno, Enrico & Masi, Donato & Leao, Celina. (2015). Drivers for OSH interventions in small and medium-sized enterprises. *International Journal of Occupational Safety and Ergonomics: JOSE*, 22(19). https://doi.org/10.1080/10803548.2015.1117351
18. Chandan Maheshkar and Neha Soni (2022). Problems faced by Indian Micro, Small and Medium Enterprises (MSMEs). *SEDME (Small Enterprises Development Management & Extension Journal)*, 48(4). https://doi.org/10.1177/09708464
19. Chen, Hsin & Papazafeiropoulou, Anastasia & Wu, Chingfang. (2011). An E-Government Initiative to Support Supply Chain Integration for Small to Medium Sized Enterprises: Successes and Challenges. *Data Base for Advances in Information Systems*, 42, 63-80. https://doi.org/10.1145/2096140.2096145
20. Chong and Ooi, (2008). Adoption of interorganizational system standards in supply chains, an empirical analysis of RosettaNet standards. *Industrial Management & Data Systems*, 108(4), 529-547. https://doi.org/10.1108/02635570810868371
21. Chong, A.Y.L., Ooi, K.B., Lin, B.S. and Raman, M. (2009). Factors affecting the adoption level of e-commerce: An empirical study. *Journal of Computer Information Systems*, 50(2), 13-22.
22. Chong, Alain & Ooi, Keng-Boon & Bao, Haijun & Lin, Binshan. (2014). Can e-business adoption be influenced by knowledge management? An empirical analysis of Malaysian

SMEs. *Journal of Knowledge Management*, 18(1), 121-136. https://doi.org/10.1108/JKM-08-2013-0323
23. Chong, S. and Pervan, G. (2007). Factors influencing the extent of deployment of electronic commerce for small and medium enterprises. *Journal of Electronic Commerce in Organizations*, 5(1), 1-29. https://doi.org/10.4018/jeco.2007010101
24. Chong, W.K., Shafaghi, M. and Tan, B.L. (2011). Development of a business critical success factors (B2B CSFs) framework for Chinese SMEs. *Marketing Intelligence & Planning*, 29(5), 517-533. https://doi.org/10.1108/02634501111153700
25. Coase, R. H. (1937). The Nature of the Firm. *Economica, N.S.*, 4, 386-405. https://doi.org/10.1111/j.1468-0335.1937.tb00002.x
26. Coase, R.H. (1992). The institutional structure of production: The 1991 Alfred Nobel Memorial Prize Lecture in Economic Sciences. *American Economic Review*, 82, 713-719.
27. Dai, Q and Kauffman, R.J. (2002). B2B E-Commerce Revisited: Leading Perspectives on the Key Issues and Research Directions. *Electronic Markets*, 12(2), 67-83. https://doi.org/10.1080/10196780252844517
28. Damodaran, S & Kavin, S & Keerthi, K & Madhumathi, J & Mythili, PV. (2019). Empowering MSMEs through digital lending. In *International Conference on Digitization (ICD)*, pp. 249-253. https://doi.org/10.1109/ICD47981.2019.9105772
29. Daniel, E and Wilson, H (2002). Adoption intentions and benefits realised: A study of e-commerce in UK SMEs. *Journal of Small Business and Enterprise Development*, 9(4), 331-348. https://doi.org/10.1108/14626000210450522
30. Davis, F. D., (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. https://doi.org/10.2307/249008
31. Dimaggio, P.J., and Powell, W. W., (1983). The iron cage revisited – Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147-160. https://doi.org/10.2307/2095101
32. Driedonks, Caroline, Shirley Gregor, Arjen Wassenaar, and Eric van Heck. (2005). Economic and social analysis of the adoption of B2B electronic marketplaces: A case study in the Australian beef industry. *International Journal of Electronic Commerce*, 9(3), 49-72. Retrieved from http://www.jstor.org/stable/27751154
33. Durst, Susanne & Mention, Anne-Laure & Poutanen, Petro. (2015). Service innovation and its impact: What do we know about? *Investigaciones Europeas De Dirección y Economía de la Empresa*. https://doi.org/10.1016/j.iedee.2014.07.003
34. Edy Susena , Edy Susanto (2019). Analysis and design E-Marketplace for Micro, Small and Medium Enterprises. *International Journal of Innovative Research in Advanced Engineering (IJIRAE)*, 6, 601-609.
35. Eva Lahuerta Otero, Pablo A. Munoz Gallego, Renee M. E. Pratt (2014). Click-and-Mortar SMEs: Attracting customers to your website. *Business Horizons*, 57, 729-736. https://doi.org/10.1016/j.bushor.2014.07.006
36. Fachriyan, Hilmi & Jamhari, Jamhari & Irham, Irham & Lestari, Rahayu & Waluyati, Lestari. (2022). General management: The effect of e-marketing mix on competitive positional advantage: A study on e-marketplaces in Indonesia. *Quality - Access to Success*, 23(190), 144-155. https://doi.org/10.47750/QAS/23.190.17
37. Fred D. Davis. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-339. https://doi.org/10.2307/249008
38. Gengatharen, Denise & Standing, Craig. (2005). A framework to assess the factors affecting success or failure of the implementation of government-supported regional e-

marketplaces for SMEs. *ECU Publications*. https://doi.org/10.1057/palgrave.ejis.3000551

39. Ghobakhloo, Morteza & Sabouri, Mohammad & Tang, Sai Hong & Hong, & Zulkifli, Norzima. (2011). Information technology adoption in small and medium-sized enterprises; An appraisal of two decades literature. *Interdisciplinary Journal of Research in Business, 1*, 53-80.
40. Gimenez, C., van der Vaart, T. and Van Donk, D. (2012). Supply chain integration and performance: The moderating effect of supply complexity. *International Journal of Operations & Production Management, 32*, 583-610. https://doi.org/10.1108/01443571211226506
41. Grandon E. and Pearson J.M. (2004a). E-commerce adoption: Perception of managers/owners of small and medium sized firms in Chile. *Communications of Association for the Information Systems, 13*(18), 81-102. https://doi.org/10.17705/1CAIS.01308
42. Grandon E. and Pearson J.M. (2004b). Electronic commerce adoption: An empirical study of small and medium US businesses. *Information & Management, 42*(1), 197-216. https://doi.org/10.1016/j.im.2003.12.010
43. Grewal, R., Corner, J. and Mehta, R. (2001). An investigation into the antecedents of organizational participation in business-to-business electronic markets. *Journal of Marketing, 65*(3), 17-33. https://doi.org/10.1509/jmkg.65.3.17.18331
44. Grey W., Olavson T. and Shi D. (2005). The role of e-marketplaces in relationship based supply chains: A survey. *IBM Systems Journal, 44*(1), 109-123. https://doi.org/10.1147/sj.441.0109
45. Grieger, M. (2003). Electronic marketplaces: A literature review and a call for supply chain management research. *European Journal of Operational Research, 14*(4), 280-294. https://doi.org/10.1016/S0377-2217(02)00394-6
46. Gulledge, T. (2002). (2002). B2B eMarketplaces and small and medium-sized enterprises. *Computers in Industry, 49*(1), 47-58. https://doi.org/10.1016/S0166-3615(02)00058-1
47. Hadaya, P. (2004). Determinants of future level use of emarketplace among Canadian firms. In *Proceedings of the 37th Hawaii International Conference on System Sciences*. IEEE. https://doi.org/10.1109/HICSS.2004.1265484
48. Hossam Hussein. (2020). The impact of financial technology on financial inclusion: The case of Egypt. *IOSR Journal of Economics and Finance (IOSR-JEF), 11*(6 Ser. II), 35-51. https://doi.org/10.9790/5933-1106023551
49. Hsu P., Kraemer K. L. and Dunkle D (2006). Determinants of e-business use in US firms. *International Journal of Electronic Commerce, 10*(4), 9-45. https://doi.org/10.2753/JEC1086-4415100401
50. Iacovou, C.L., Benbasat, I. and Dexter, A.S. (1995). Electronic data interchange and small organizations: Adoption and impact of technology. *MIS Quarterly, 19*(4), 465-485. https://doi.org/10.2307/249629
51. J.Yannis Bakos .(1991). A strategic analysis of electronic marketplaces. *Management Information Systems Research Center, 15*(3), 295-310. https://doi.org/10.2307/249641
52. Jap, S.D. and Mohr, J.J. (2002). Leveraging Internet technologies in B2B relationships. *California Management Review, 44*(4), 24-38. https://doi.org/10.2307/41166141
53. Jeon B.N., Han K.S. and Lee M. G. (2006). Determining factors for the adoption of e-business: The case of SMEs in Korea. *Applied Economics, 38*(16), 1905-1916. https://doi.org/10.1080/00036840500427262

54. Joo Y.B and Kim Y.G. (2004). Determinants of corporate adoption of eMarketplace: An innovation theory perspective. *Journal of Purchasing and Supply Management, 10*(2), 89-101. https://doi.org/10.1016/j.pursup.2004.01.001
55. Jutla, D., Bodorik, P. and Dhaliwal, J. (2002). Supporting the e-business readiness of small and medium-sized enterprises: Approaches and metrics. *Internet Research, 12*(2), 139-164. https://doi.org/10.1108/10662240210422512
56. Kaplan S and Sawhney M. (2000). E-Hubs: The new B2B E-marketplace. *Harvard Business Review, 78*(3), 97-103. PMID: 11183982
57. Kaynak E., Tatoglu, E. and Kula, V. (2005). An analysis of the factors affecting the adoption of electronic commerce by SMEs: Evidence from emerging market. *International Marketing Review, 22*(6), 623-640. https://doi.org/10.1108/02651330510630258
58. Key, Thomas. (2017). Domains of digital marketing channels in the sharing economy. *Journal of Marketing Channels*, 24(1-2), 27-38. https://doi.org/10.1080/1046669X.2017.1346977
59. Khayer, Abul & Jahan, Nusrat & Hossain, Md Nahin & Hossain, Md.Yahin. (2020). The adoption of cloud computing in small and medium enterprises: A developing country perspective. *VINE Journal of Information and Knowledge Management Systems*, 51(1), 64-91. https://doi.org/10.1108/VJIKMS-05-2019-0064
60. King, Kathleen P., and John J. Foley. (2011). 21st century learning opportunities for SME success: Maximizing technology tools and lifelong learning for innovation and impact. In M. M. Cruz-Cunha & J. Varajão (Eds.), *E-Business Issues, Challenges and Opportunities for SMEs: Driving Competitiveness* (pp. 65-86). IGI Global. https://doi.org/10.4018/978-1-61692-880-3.ch005
61. Korchak, R. and Rodman, R. (2001). E-business adoption by US small manufacturers and the role of manufacturing extension. *Economic Development Review*, 17(3), 20-25.
62. Kuan, K.K.Y. and Chau P.Y.K. (2001). A perception-based model for EDI adoption in small business using a technology organization environment framework. *Information & Management*, 38(8), 507-512. https://doi.org/10.1016/S0378-7206(01)00073-8
63. Kumar, Vinod & Movahedi, Bahar & Miri-Lavassani, Kayvan. (2009). Transition to B2B E-Marketplace enabled supply chain: Readiness assessment and success factors. *The International Journal of Technology, Knowledge, and Society: Annual Review*, 5, 75-88. https://doi.org/10.18848/1832-3669/CGP/v05i03/55999
64. Larson, Paul D.; Lusch, Robert F. (1990). Quick response retail technology: Integration and performance measurement. *The International Review of Retail, Distribution and Consumer Research*, 1(1), 17-35. https://doi.org/10.1080/09593969000000003
65. Jon, Kendall & Lai, Tung & Hui, Chua & Dennis, Ng & Meng, Tan. (2001). Electronic commerce adoption by SMEs in Singapore. *Hawaii International Conference on System Sciences*, 7(10). https://doi.org/10.1109/HICSS.2001.927068
66. Laudon K.C. and Laudon J.P. (2004). *Management information systems* (8th ed.). Pearson Education.
67. Le, Thuong T. (2002). Pathways to leadership for business-to-business electronic marketplaces. *Electronic Markets*, 12(2), 112-119. https://doi.org/10.1080/10196780252844553
68. Lee H.G. and Clark, T.H. (1997). Market process reengineering through electronic market systems: Opportunities and challenges. *Journal of Management Information Systems*, 13(3), 113-136.

69. Levy, M., Powell, P. and Les W. (2005). Strategic intent and E-business in SMEs: Enablers and inhibitors. *Information Resources Management Journal*, 18(4), 1-20. https://doi.org/10.4018/irmj.2005100101
70. Li, Kai; Wang, Xiaowen; Du, Timon C. (2020). Entrepreneurial orientation, online credibility, and online performance: Evidence from SMEs in a B2B electronic market in China. *Journal of Small Business Management*, 60(1), 93-118. https://doi.org/10.1080/00472778.2019.1695495
71. Lin, C., Yu-An Huang and Stockdale R. (2011). Developing a B2B website effectiveness model for SMEs. *Internet Research*, 21(3), 304-325. https://doi.org/10.1108/10662241111139327
72. Lituchy, T.R. and Rail, A. (2000). Bed and breakfasts, small inns, and the Internet: The impact of technology on the globalization of small businesses. *Journal of International Marketing*, 8(2), 86-97. https://doi.org/10.1509/jimk.8.2.86.19625
73. Liu, F., Park, K., & Whang, U. (2019). Organizational capabilities, export growth and job creation: An investigation of Korean SMEs. *Sustainability*, 11(14). https://doi.org/10.3390/su11143986
74. Lohrke, F. T. (2006). The Internet as an information conduit: A transaction cost analysis model of US SME Internet use. *International Small Business Journal*, 24(2), 159-178. https://doi.org/10.1177/0266242606061838
75. Looi, H.C. (2005). E-commerce adoption in Brunei Darussalam: A quantitative analysis of factors influencing its adoption. *Communications of the Association for Information Systems*, 15, 61-81. https://doi.org/10.17705/1CAIS.01503
76. Loukis ,E., Spinellis, D. and Katsigiannis, A. (2011). Barriers to the adoption of B2B e-marketplaces by large enterprises: Lessons learned from the Hellenic aerospace industry. *Information Systems Management*, 28, 130-146. https://doi.org/10.1080/10580530.2011.562129
77. Suganya, M. P., & Shanthi, R. (2014). Impact on implementation of internet marketing in small and medium enterprises (SMEs). *SEDME (Small Enterprises Development, Management & Extension Journal)*, 41(2), 63-84. https://doi.org/10.1177/0970846420140206
78. MacGregor, R. C., & Vrazalic, L. (2005). A basic model of electronic commerce adoption barriers: A study of regional small businesses in Sweden and Australia. *Journal of Small Business and Enterprise Development*, 12(4), 510-527. https://doi.org/10.1108/14626000510628199
79. MacGregor, R. C., Bunker, D. J., & Waugh, P. (1998). Electronic commerce and small/medium enterprises (SME's) in Australia: An electronic data interchange (EDI) pilot study. In *Proceedings of the 11th International Bled Electronic Commerce Conference*.
80. Malone, T. W., Yates, J., & Benjamin, R. I. (1987). Electronic markets and electronic hierarchies. *Communications of the ACM*, 30(6), 484-497. https://doi.org/10.1145/214762.214766
81. Maroufkhani, P., Wan Ismail, W. K., & Ghobakhloo, M. (2020). Big data analytics adoption model for small and medium enterprises. *Journal of Science and Technology Policy Management*, 11(4), 483-513. https://doi.org/10.1108/JSTPM-02-2020-0018
82. Maroufkhani, Parisa & Iranmanesh, Mohammad & Ghobakhloo, Morteza. (2022). Determinants of big data analytics adoption in small and medium-sized enterprises (SMEs). *Industrial Management & Data Systems*. https://doi.org/10.1108/IMDS-11-2021-0695

83. Martins, M. F. and Oliveira, T. (2009). Determinants of e-commerce adoption by small firms in Portugal. In *3rd European conference on information management and evaluation*, Gothenburg, Sweden, September (pp. 328-338).
84. Masi, Donato & Cagno, Enrico. (2014). Barriers to OHS interventions in Small and Medium-sized Enterprises. *Safety Science*, 71. https://doi.org/10.1016/j.ssci.2014.05.020
85. Mattos, Camila & Pellegrini, Giustina & Hagelaar, Geoffrey & Dolfsma, Wilfred. (2023). Systematic literature review on technological transformation in SMEs: A transformation encompassing technology assimilation and business model innovation. *Management Review Quarterly*. https://doi.org/10.1007/s11301-023-00327-7
86. Mazzarol, Tim. (2015). SMEs engagement with e-commerce, e-business and e-marketing. *Small Enterprise Research*, 22, 1-12. https://doi.org/10.1080/13215906.2015.1018400
87. Mehrtens J., Cragg, P.B. and Mills A.M. (2001). A model of Internet adoption by SMEs. *Information and Management*, 39(3), 165-176. https://doi.org/10.1016/S0378-7206(01)00086-6
88. Moini, H. and Tesar, G. (2005). The internet and internationalisation of smaller manufacturing enterprises. *Journal of Global Marketing*, 18(3-4), 79-94. https://doi.org/10.1300/J042v18n03_04
89. Molla, A. and Licker P.S. (2005b). Perceived e-readiness factors in ecommerce adoption: An empirical investigation in a developing country. *International Journal of Electronic Commerce*, 10(1), 83-110. Retrieved from http://www.jstor.org/stable/27751175
90. Molla, A. and Licker, P.S. (2005a). E-commerce adoption in developing countries: A model and instrument. *Information & Management*, 42, 877-899. https://doi.org/10.1016/j.im.2004.09.002
91. Moodley S. and Morris M. (2004). Does E-commerce fulfil its promise for developing country (South African) garment export producers? *Oxford Development Studies*, 32(2), 155-178. https://doi.org/10.1080/1360081042000169993
92. Moodley, S. (2003). Whither business-to-business electronic commerce in developing economies? The case of the South African manufacturing sector. *Information Technology for Development*, 10, 25-40. https://doi.org/10.1002/itdj.1590100104
93. Muñoz-Pascual, L., Curado, C., & Galende, J. (2019). How does the use of information technologies affect the adoption of environmental practices in SMEs? A mixed-methods approach. *Review of Managerial Science*, 15(6), 75-102. https://doi.org/10.1007/s11846-019-00371-2
94. Munoz-Pascual, Lucía & Galende, Jesús & Curado, Carla. (2021). Contributions to sustainability in SMEs: Human resources, sustainable product innovation performance and the mediating role of employee creativity. *Sustainability*, 13. https://doi.org/10.3390/su13042008
95. Murtaza, M.B., Gupta, V. and Carroll, R.C. (2004). E-marketplaces and the future of supply chain management: Opportunities and challenges. *Business Process Management Journal*, 10(3), 325-335. https://doi.org/10.1108/14637150410539722
96. Oliveira, T., & Martins, M. F. (2011). Literature review of information technology adoption models at firm level. *The Electronic Journal Information Systems Evaluation*, 14(1), 110-121.
97. Oliveira, T., & Martins, M. F. (2010). Firms patterns of e-business adoption: Evidence for the European Union-27. *The Electronic Journal Information Systems Evaluation*, 13(1), 47-56.
98. Patricia R. Todd Raj G. Javalgi David Grossman. (2014). Understanding the characteristics of the growth of SMEs in B-to-B markets in emerging economies: An

organizational ecology approach. *Journal of Business & Industrial Marketing, 29*(4), 295-303. https://doi.org/10.1108/JBIM-08-2013-0189

99. Premkumar, G. (2003b). Perspectives of the E-marketplace by Multiple Stakeholders. *Communications of the ACM, 46*(12), 279-288. https://doi.org/10.1145/953460.953512
100. Rambe, Patient & Matema, Simbarashe & Madichie, Nnamdi. (2017). Breaching Location Silos: An Exploration of social media optimisation by SMMEs in Southern Africa. *LSBM Working Paper Series, 2*, 43-59.
101. Rao, P., Kumar, S., Gaur, V., & Verma, D. (2017). What constitutes financing gap in Indian SMEs – owners' perspective? *Qualitative Research in Financial Markets, 9*(2), 117-131. https://doi.org/10.1108/qrfm-01-2017-0001
102. Rao, S Subba; Metts, Glenn; Monge, Carlo A Mora. (2003). Electronic commerce development in small and medium sized enterprises: A stage model and its implications. *Business Process Management Journal, 9*(1), 11-32. https://doi.org/10.1108/14637150310461378
103. Rindfleisch, A., and Heide, J.B. (1997). Transaction cost analysis: Past, present, and future applications. *Journal of Marketing, 61*(4), 30-54. https://doi.org/10.2307/1252085
104. Rogers, E. M. (1995). Diffusion of Innovations (4th ed.). New York: Free Press.
105. Rohm, A.J., Kashyap, V., Brashear, T.G. and Milne, G.R. (2004). The use of online marketplaces for competitive advantage: A Latin American perspective. *Journal of Business & Industrial Marketing, 19*(6), 372-385. https://doi.org/10.1108/08858620410556318
106. Saprikis, V. and Vlachopoulou, M. (2012). Determinants of suppliers' level of use of B2B e-marketplaces. *Industrial Management & Data Systems, 112*(4), 619-643. https://doi.org/10.1108/02635571211225512
107. Scott, W. R. (2001). *Institutions and organizations* (2nd ed.). Thousand Oaks, CA: Sage Publications.
108. Scott, W. R., & Christensen, S. (1995). *The institutional construction of organizations: International and longitudinal studies*. Thousand Oaks, CA: Sage Publications.
109. Scuotto, Veronica & Caputo, Francesco & Villasalero, Manuel & Giudice, Manlio. (2017). A multiple buyer – supplier relationship in the context of SMEs' digital supply chain management. *Production Planning & Control, 28*, 1378-1388. https://doi.org/10.1080/09537287.2017.1375149
110. Servais, P., Koed Madsen, T. and Rasmussen, E.S. (2006). Small Manufacturing Firms' Involvement in International E-business Activities. In T. International Marketing Research (Ed.), *Advances in International Marketing, 17*. Emerald Group Publishing Limited, Bingley, pp. 297-317. https://doi.org/10.1016/S1474-7979(06)17011-8
111. Shaikh, Asmat Ara, Patel, Amir Nasir, Shaikh, M. Z., Chavan, C. R. (2021). SLRA: Challenges faced by SMEs in the adoption of E-commerce and sustainability in Industry 4.0. *Acta Universitatis Bohemiae Meridionales, 24*(3), 15-38. https://doi.org/10.32725/acta.2021.010
112. Simmons, G.J., Durkin, M.G., McGowan, P. and Armstrong, G.A. (2007).Determinants of internet adoption by SME agri-food companies. *Journal of Small Business and Development, 14*(4), 620-640. https://doi.org/10.1108/14626000710832730
113. Son, J.Y. and Benbasat, I. (2007). Organizational Buyer's adoption and use of B2B Electronics Marketplaces: Efficiency and Legitimacy-Oriented Perspectives. *Journal of Management Information Systems, 24*(1), 55-99. https://doi.org/10.2753/MIS0742-1222240102

114. Standing , Craig; Sims, Ian; Stockdale, Rosemary; Gengatharen, Denise; Standing, Susan; Wassenaar, Arjen (2004). Can E-Marketplaces Bridge the Digital Divide? An Analysis of Two Western Australian Cases. *The Electronic Journal of Information Systems in Developing Countries, 20*(1), 1–14. https://doi.org/10.1002/j.1681-4835.2004.tb00130.x
115. Stockdale, Rosemary & Standing, Craig. (2004). Benefits and barriers of electronic marketplace participation: An SME perspective. *Journal of Enterprise Information Management, 17*(4), 301-311. https://doi.org/10.1108/17410390410548715
116. Subawa, Nyoman S., et al. (2023). The Effect of Experiential Marketing, Social Media Marketing, and Brand Trust on Repurchase Intention in Ovo Applications. *International Research Journal of Management, IT and Social Sciences, 7*(3), 11-21. https://doi.org/10.21744/irjmis.v7n3.881
117. Suchman, M.C. (1995). Managing Legitimacy: Strategic and institutional Approaches. *Academy of Management Review, 20*, 571-610. https://doi.org/10.2307/258788
118. Chopra, S., & Meindl, P. (2007). *Supply Chain Management: Strategy, Planning, and Operations* (3rd ed., Ch. 3, pp. 48-49). Prentice-Hall, Englewood Cliffs, NJ.
119. Madanmohan, T. R. (2005). Successful e-marketplaces: An institutional perspective. *Sadhana, 30*(2), 431-444. https://doi.org/10.1007/bf02706254
120. Teck-YongEng (2004). The role of e-marketplaces in supply chain management. *Industrial Marketing Management, 33*(2), 97-105. https://doi.org/10.1016/s0019-8501(03)00032-4
121. Tell, J., Hoveskog, M., Ulvenblad, P., Ulvenblad, P.-O., Barth, H., & Ståhl, J. (2016). Business model innovation in the agri-food sector: A literature review. *British Food Journal, 118*(6), 1462-1476. https://doi.org/10.1108/BFJ-08-2015-0293
122. Teo, H. H., Wei, K. K., & Benbasat, I. (2003). Predicting intention to adopt interorganizational linkages: An institutional perspective. *MIS Quarterly, 27*(1), 19-49. https://doi.org/10.2307/30036518
123. Teo, T. S. H., & Ranganathan, C. (2004). Adopters and non-adopters of business to business electronic commerce in Singapore. *Information and Management, 42*(1), 89-102.
124. Martin, T. (2017). Domains of Digital Marketing Channels in the Sharing Economy. *Journal of Marketing Channels, 24*(1-2), 27–38. https://doi.org/10.1016/j.im.2003.12.005
125. Tornatzky, L., & Fleischer, M. (1990). *The process of technology innovation*. Lexington, MA: Lexington Books.
126. Triandis, H. C. (1971). *Attitude and Attitude Change (Foundations of Social Psychology)*. Hoboken, NJ: John Wiley & Sons Inc.
127. Upadhyaya, P., Mohanan, P., & Prasad, M. (2009). Can SMEs in India benefit from B2B Electronic Marketplaces. *RVIM Journal of Management Research, 1*(2), 63-68.
128. Upadhyaya, P., Karantha, M. P., & Thayyil, M. (2013). Barriers to adoption of B2B E-marketplaces: An empirical study of Indian manufacturing MSMEs. *Review of Integrative Business and Economics Research, 2*(1), 555-565.
129. Jenifer Vásquez, Santiago Aguirre, Edwin Puertas, Giulia Bruno, Paolo C. Priarone, & Luca Settineri. (2021). A sustainability maturity model for micro, small and medium-sized enterprises (MSMEs) based on a data analytics evaluation approach. *Journal of Cleaner Production*. https://doi.org/10.1016/j.jclepro.2021.127692
130. Venkatesh, Viswanath & Morris, Michael & Davis, Gordon & Davis, Fred. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425-478.

131. Viswanath Venkatesh, James Y. L. Thong and Xin Xu. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly, 36*(1), 157-178.
132. Vivek Choudhury (1997). Strategic choices in the development of interorganizational information systems. *Information Systems Research, 8*(1), 1-24.
133. Wang, S., Hong, C. Y., Archer, N., & Wang, Y. (2011). Modeling the success of small and medium sized online vendors in business to business electronic marketplaces in China: A motivation - capability framework. *Journal of Global Information Management, 19*(4), 45-75.
134. White, Gareth & Afolayan, Ademola & Plant, Eoin. (2014). Challenges to the Adoption of E-commerce Technology for Supply Chain Management in a Developing Economy: A Focus on Nigerian SMEs, pp.23-39.
135. Williams, L.R., Esper, T.L. and Ozment, J. (2002). The electronic supply chain: Its impact on the current and future structure of strategic alliances, partnerships and logistics leadership. *International Journal of Physical Distribution & Logistics Management, 32*(8), 703-719.
136. Williamson, O. E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: The Free Press.
137. Williamson, O. E. (1985). *The Economic Institutions of Capitalism*. New York: Free Press.
138. Zhu, K., Kraemer, K. L., Xu, S., & Dedrick, J. (2004). Information technology payoff in E-business environments: An international perspective on value creation of E-business in the financial services industry. *Journal of Management Information Systems, 21*(1), 17-54.
139. Zhu, K., Kraemer, K. L., & Xu, S. (2003). Electronic business adoption by European firms: A cross-country assessment of the facilitators and inhibitors. *European Journal of Information Systems, 12*(4), 251-268.
140. Zhu, K., Kraemer, K. L., & Xu, S. (2006). The process of innovation assimilation by firms in different countries: A technology diffusion perspective on e-business. *Management Science, 52*(10), 1557-1576.
141. Haddaway, N. R., Page, M. J., Pritchard, C. C., & McGuinness, L. A. (2022). PRISMA2020: An R package and Shiny app for producing PRISMA 2020-compliant flow diagrams, with interactivity for optimised digital transparency and Open Synthesis. *Campbell Systematic Reviews, 18*, e1230. https://doi.org/10.1002/cl2.1230
142. Paul, J., Lim, W. M., O'Cass, A., Hao, A. W., & Bresciani, S. (2021). Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR). International Journal of Consumer Studies.