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The Evolution of E-commerce Platforms and Their Influence on Small Business Growth (2010–2025)

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Abstract:
This research investigates the evolution of e-commerce platforms from 2010 to 2025 and their influence on the growth of small businesses. The central question guiding the study is: How have digital platforms, business models, and technological innovations shaped the opportunities and challenges for small businesses in the global digital economy?
The study examines the development of key e-commerce models (B2C, B2B, C2C, and D2C) and the contrasting roles of centralized versus decentralized platforms. It highlights how emerging technologies such as cloud computing, mobile-first design, live streaming, APIs, and fintech infrastructure have transformed business operations. Case studies of Amazon, Shopify, and Etsy demonstrate how platforms expand market access, streamline logistics, and support entrepreneurship, while also creating dependencies and inequities. The COVID-19 pandemic is analyzed as a catalyst for accelerated digital transformation, driving mobile commerce, digital payments, and omnichannel strategies, while revealing vulnerabilities for small enterprises.
The findings conclude that e-commerce platforms have become critical enablers of small business growth by lowering barriers to entry, expanding global reach, and enhancing customer engagement. However, long-term sustainability requires addressing platform dependence, digital inequities, and regulatory challenges. The research underscores that future small business success will hinge on the ability to adapt to an evolving platform economy.

Keywords: E-commerce platforms, Small business growth, Online marketplaces, Digital transformation, E-commerce adoption, Customer engagement, Online sales strategies, E-commerce trends 2010–2025

Chapter 1 : Introduction

Electronic commerce (or “e-commerce”) involves the buying and selling of goods and services through the Internet. The payment for such a transaction can be performed online, eliminating the need for the seller and purchaser to meet in person. However, cash on delivery is still another alternative. E-commerce has transformed how businesses operate, reach customers, and drive growth in today’s digital world (Z. Cao, 2024). The rise of online platforms has empowered businesses of all kinds. E-commerce is crucial for small business growth as it expands market reach, increases sales, reduces operational costs, and provides valuable data insights (Z. Cao, 2024). It enables businesses to compete with larger companies and adapt to changing customer preferences. E-commerce has gained particular importance for the development of small businesses due to the restrictions imposed because of the spread of the new

coronavirus infection (Z. Cao, 2024). In this study, we will dig deeper into the influence of e-commerce on businesses. E-commerce has transformed how businesses operate, reach customers, and drive growth in today's digital world (Z. Cao, 2024). The rise of online platforms has empowered businesses of all kinds. E-commerce is crucial for small business growth as it expands market reach, increases sales, reduces operational costs, and provides valuable data insights (Z. Cao, 2024). E-commerce has become a powerful growth engine for small businesses, giving them the tools to compete with larger companies and stay in tune with changing customer needs. The urgency to go digital spiked during the COVID-19 pandemic, when lockdowns and restrictions made online platforms not just helpful—but essential—for survival and expansion (Z. Cao, 2024).

This study explores how e-commerce platforms have shaped small business growth between 2010 and 2025. It looks at the rise and transformation of global platforms like Amazon, Flipkart, Shopify, and Etsy, and how they've enabled businesses to reach new markets and scale operations. It also dives into the evolution of different e-commerce models—B2C, B2B, C2C, and D2C—as well as the impact of centralized versus decentralized platform structures on business performance. By tracing these shifts, the research highlights how digital infrastructure, platform design, and customer access have played a role in redefining how small businesses start, grow, and compete.

1.1 Conceptual Framework and Evolution of E-commerce (2010–2025)

B2C, B2B, C2C, D2C models; In the world of e-commerce, the main business models are B2B (Business to Business), B2C (Business to Consumer), C2C (Consumer to Consumer) and D2C (Direct to Consumer) (H. Terbeck et al., 2014). Businesses that sell their goods to other companies, such as manufacturers, wholesalers or retailers, are considered to be B2B e-commerce companies (H. Terbeck et al., 2014). These companies offer the goods or services that other companies need to expand. Business-to-business e-commerce does not directly involve consumers, in contrast to consumer e-commerce (H. Terbeck et al., 2014).

The business-to-consumer (B2C) business model, on the other hand, entails companies selling their products or services directly to consumers (H. Terbeck et al., 2014). This is the most common type of e-commerce, when businesses communicate directly with consumers through retail locations or online platforms (H. Terbeck et al., 2014).

Furthermore, C2C e-commerce is the term used to describe e-commerce that involves the sale of goods or services from one client to another (H. Terbeck et al., 2014). It features individuals directly exchanging goods or services with one another, sometimes facilitated by an online marketplace (H. Terbeck et al., 2014). This tactic allows customers to buy from and sell to other customers without going through traditional businesses. C2C transactions are common in classified systems, online marketplaces, and auction websites (H. Terbeck et al., 2014).

Lastly, the Direct-to-Consumer (D2C) business model avoids traditional retail middlemen like wholesalers and merchants by having companies sell directly to customers through their online platforms (H. Terbeck et al., 2014). This approach allows brands to have more control over their price, customer experience, and brand while also enhancing customer connections (H. Terbeck et al., 2014).

Centralised vs. decentralised platforms

Centralized Online Marketplace

A centralized online marketplace is a platform that is controlled by a single entity or organization, such as Amazon or eBay. The platform is responsible for managing the transactions and the data that is exchanged

between buyers and sellers (J. Peng et al., 2022).

Decentralized Online Marketplace

A decentralized online marketplace, on the other hand, is a platform that operates on a peer-to-peer (P2P) network, where buyers and sellers can interact directly with each other without the need for a central authority. Decentralized online marketplaces are built on blockchain technology, which ensures the security and transparency of transactions (J. Peng et al., 2022).

Since its inception in the late 20th century, e-commerce has undergone incredible growth (Y. Tian, 2021). It's important to consider how far e-commerce has advanced from the earliest days of straightforward online transactions to the deeper, more personalised purchasing experiences we now enjoy as we live in a digital, cashless culture. E-commerce began as a simple, practical trade in the form of a digital catalog where customers could choose what they wanted to buy (Y. Tian, 2021). When consumers first started to navigate the uncharted realm of online shopping, the first wave of e-commerce was characterized by novelty. Additionally, Amazon and eBay were founded in the mid to late 1990s.

E-commerce started to develop as the twenty-first century rolled around. Online companies began using pay-per-click advertising and search engine optimization to draw clients. More interactive websites were made possible by the introduction of Web 2.0 technologies, which raised user engagement (Y. Tian, 2021). Additionally, social media networks gained popularity, which changed the picture even more.

More recently, e-commerce has been greatly impacted by the development of mobile technologies. Online shopping has become even more easy with the introduction and widespread use of smartphones, allowing customers to shop whenever and wherever they choose (Y. Tian, 2021).

Cloud Computing:

In order to provide quicker innovation, more flexible resources, and economies of scale, cloud computing refers to the delivery of computer services such as servers, storage, databases, networking, software, analytics, and intelligence through the Internet (T. Almarabeh & Y. Majdalawi, 2019). Businesses can rent computing power, storage, and other services from a cloud provider on an as-needed basis rather than purchasing and maintaining actual data centers and servers (T. Almarabeh & Y. Majdalawi, 2019). Cloud services come in three varieties: private, hybrid, and public. Third-party suppliers host public clouds, whilst private organizations run private cloud services for internal use. Hybrid clouds use a combination of private and public hosting methods (T. Almarabeh & Y. Majdalawi, 2019).

Cloud computing is an essential technology in today's digital marketplace since it offers e-commerce platforms a multitude of benefits (T. Almarabeh & Y. Majdalawi, 2019). Scalability and flexibility are two of the main advantages; companies can readily adjust their resources to meet demand, such as during promotional events or holiday sales, guaranteeing seamless client experiences without going over budget at slower times (T. Almarabeh & Y. Majdalawi, 2019). Cost effectiveness is yet another significant benefit. E-commerce businesses, particularly small and medium-sized organisations (SMEs), can cut capital expenditure and only pay for the resources they use with a convenient "pay-as-you-go" model by doing away with the need for costly physical infrastructure (T. Almarabeh & Y. Majdalawi, 2019).

By running global networks of data centers, cloud providers also guarantee great performance and speed, which lowers latency and speeds up website load times for users everywhere. In addition, cloud services include robust security and compliance capabilities, including secure backups, data encryption, and ongoing updates to safeguard private client and transaction information (T. Almarabeh & Y. Majdalawi, 2019).

Cloud platforms offer frequent data backups and redundancy for business continuity and disaster recovery, enabling e-commerce businesses to swiftly recover from unforeseen malfunctions or calamities. Additionally, cloud computing facilitates worldwide expansion and reach, enabling companies to effortlessly access new markets by distributing their services in numerous countries with little effort (T. Almarabeh & Y. Majdalawi, 2019).

Additionally, cloud-based solutions facilitate remote work and allow teams to collaborate effectively on a variety of tasks, including marketing, customer service, and inventory management. Furthermore, cloud vendors' automatic upgrades guarantee that platforms are constantly operating on the most recent and secure versions, which lessens the workload for IT managers (T. Almarabeh & Y. Majdalawi, 2019).

Moreover, real-time analytics and insights are supported by the cloud, providing companies with strong capabilities for monitoring website performance, sales trends, and customer behavior. Better, data-driven judgments result from this. Finally, by enabling recommendation engines and tailored content, cloud technologies contribute to the creation of individualized customer experiences, increasing engagement and sales while also enhancing customer satisfaction (T. Almarabeh & Y. Majdalawi, 2019).

Cloud computing integration into e-commerce is a game-changer, altering how companies function in the digital sphere. It enables businesses to function with efficiency, scalability, and agility while providing improved client experiences—all of which are critical in the cutthroat market of today (T. Almarabeh & Y. Majdalawi, 2019).

But these incredible benefits come with serious drawbacks, such as cost management, data security, and compliance problems. Because of this, picking a trustworthy cloud provider is essential (T. Almarabeh & Y. Majdalawi, 2019).

Mobile-first development:

In e-commerce, mobile-first development refers to giving mobile device design and optimization precedence over desktop screen scaling (O. Varrela, 2015). Considering that most online shoppers now use mobile devices, this approach ensures a seamless, rapid, and simple user experience on smaller screens (O. Varrela, 2015).

Mobile-first e-commerce development focuses on building websites primarily for mobile devices in order to enhance user experience and boost sales. With its streamlined navigation, fast loading speeds, and content that is readable on small screens, this approach prioritizes mobile usability (O. Varrela, 2015).

It utilizes responsive design to ensure consistency across all devices and the SEO benefits of mobile-first indexing to boost search exposure (O. Varrela, 2015). By offering a smooth and engaging mobile experience, businesses can boost customer satisfaction and conversion rates, which will ultimately enhance performance (O. Varrela, 2015).

Live streaming:

The integration of live video streaming with online shopping platforms to produce a more dynamic and captivating shopping experience is referred to as live streaming in e-commerce, live commerce, or live shopping (Y. Wang et al., 2022). With live chat and integrated shopping carts, it enables companies to present products in real time, communicate with clients directly, and expedite purchases (Y. Wang et al., 2022).

Live streaming, which provides a more dynamic, real-time purchasing experience, is quickly revolutionizing e-commerce. It makes it possible for companies to interact with customers directly through live product demos, Q&A sessions, and real-time chat, fostering a vibrant relationship between buyers and sellers (Y. Wang et al., 2022). Because of its convenience and immediacy, viewers may ask questions,

watch items in use, and make purchases all inside a single broadcast, removing the need to navigate between platforms (Y. Wang et al., 2022).

By encouraging a sense of community and trust, live streaming's engagement element aids brands in developing closer, more intimate bonds with their viewers. Since this format mimics the individualized attention of in-store shopping, it frequently results in improved conversion rates and increased revenue (Y. Wang et al., 2022).

Live commerce is very flexible, appropriate for a broad spectrum of companies, from little shops to multinational conglomerates, and flexible in a number of industries. It is gradually becoming more well-liked in areas like the US and Europe after seeing enormous success in nations like China (Y. Wang et al., 2022).

Usually, sites like Facebook, YouTube, TikTok, and specialized live shopping platforms are used in the process. Products are shown, questions are answered, and clients are led through the purchasing process by hosts, who could be influencers, salespeople, or brand representatives (Y. Wang et al., 2022). Advanced checkout integrations streamline the user journey by enabling customers to make purchases directly during the stream without leaving it (Y. Wang et al., 2022).

Brands holding social media live shopping events, influencer-led product demonstrations, and retailers like Amazon using specialized live shopping platforms to improve user experience are typical examples (Y. Wang et al., 2022).

Live streaming e-commerce essentially combines engagement, entertainment, and instant purchasing to create an engaging online storefront that encourages more in-depth consumer involvement and helps consumers make more confident, informed purchases (Y. Wang et al., 2022).

APIs:

Application Programming Interfaces, or APIs, are crucial components in e-commerce because they facilitate smooth communication between various software programs and services (T. Mugo et al., 2013). They make it possible for online retailers to combine a number of operations, including order processing, payment gateways, product administration, and delivery logistics (T. Mugo et al., 2013). For instance, APIs provide safe transactions using payment processors like PayPal or Razorpay, enable inventory synchronization across platforms like Amazon or Shopify, and offer real-time order tracking through logistics companies (T. Mugo et al., 2013). APIs also facilitate marketing automation, customer management, tailored suggestions, and analytics connection with programs like Mailchimp and Google Analytics (T. Mugo et al., 2013). APIs increase productivity, improve user experience, and enable rapid business growth by automating these procedures (T. Mugo et al., 2013). All things considered, APIs provide flexibility, speed, and connectedness throughout the whole digital ecosystem, making them the foundation of contemporary e-commerce operations (T. Mugo et al., 2013).

Influence of logistics & fintech infrastructure:

In the contemporary online marketplace, logistics and fintech infrastructure play a crucial role in ensuring seamless operations and customer happiness (J. Żurek, 2015; A. Nilasari, 2022). Unlike single-vendor e-commerce platforms, virtual marketplaces function at the intersection of commerce, fintech, and logistics, requiring more complex systems to support multiple vendors, diverse buyers, and a wide range of transactions and fulfillment requirements.

From a fintech perspective, marketplaces handle extensive financial processes that extend well beyond simple payment processing (A. Nilasari, 2022). These include handling returns, commission computations for multiple vendors, and payments and payouts. In addition to processing refunds on behalf of many

suppliers, marketplaces need to handle a broad range of digital wallets and payment methods. This calls for a sturdy backend that can control payouts to individual sellers, frequently splitting a single transaction among multiple participants and guaranteeing prompt, precise money distribution (A. Nilasari, 2022).

Another evaluative fintech aspect is revenue recognition, which demands calculating the marketplace's share of each transaction. These calculations often vary depending on each seller's agreement or contractual terms, making the accounting process even more complex (A. Nilasari, 2022). Additionally, marketplaces must maintain regulatory compliance across regions, especially with vendors operating across state or international borders. Tax collection and remittance must be handled accurately, respecting various regional laws and clinching the correct allocation of tax revenues (A. Nilasari, 2022).

Marketplaces have notable operational issues when it comes to logistics. Managing warehouse inventory gets more complicated and decentralized since goods are sometimes shipped from distinct independent merchants (J. Żurek, 2015). A network of hundreds or even thousands of fulfillment points might result from each vendor running myriad warehouses. To send orders to sellers, monitor the fulfillment process, and provide purchasers with real-time updates from dispatch to delivery, effective order management systems must be installed (J. Żurek, 2015).

Plus, marketplaces need to communicate with different shipping companies so that merchants can effectively handle deliveries while still providing buyers with regular notifications and tracking information. The marketplace is in charge of streamlining shipping procedures and guaranteeing effective buyer-seller contact, although it frequently has no direct role in actual shipment (J. Żurek, 2015). Handling returns also becomes a significant logistical difficulty because marketplaces must handle numerous return addresses, modify seller payouts, and adjust commission fees appropriately, tasks far more complicated than in single-vendor operations (J. Żurek, 2015).

To conclude, the uninterrupted operation and flexibility of a marketplace relies heavily on both finance and logistics infrastructure. Long-term market performance depends on having strong systems in these areas since they not only guarantee efficiency but also improve compliance, trust, and the general customer experience (J. Żurek, 2015; A. Nilasari, 2022).

Chapter 2: Impact of E-commerce Platforms on Small Businesses

E-commerce platforms take advantage of developments in digital infrastructure and information technology (IT) to greatly increase business productivity. The growth of e-commerce has changed the way companies function by shifting trade and business operations to online networks (P. Baršauskas, et. al. 2008). Online marketing, digital transactions, telephone service, and customer service are just a few of the more simplified and effective activities made possible by this change. Digital media, online platforms, and automated customer engagement systems are examples of tools that allow organizations to function faster and with fewer resources than old ways. By integrating these digital technologies, operational overhead is decreased while speed, accuracy, and responsiveness are increased, all of which directly contribute to increased output. Businesses are better able to manage operations, scale effectively, and quickly satisfy client expectations as e-commerce becomes a business standard backed by increasing technical reliance, such as the extensive usage of smartphones, laptops, and social media. As a result, e-commerce platforms are a key source of productivity in the digital economy, helping companies to compete more successfully in a market that is driven by technology (P. Baršauskas, et. al. 2008).

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E-commerce platforms have considerably strengthened the ability of small and medium-sized enterprises (SMEs) to access global markets. With the swift expansion of internet usage, particularly through mobile devices, many SMEs have recognized e-commerce as an essential medium to stay competitive. These companies can now operate digital storefronts as standalone internet stores or in collaboration with conventional brick-and-mortar models by integrating them into their business websites (D. Consoli, 2016). Businesses can target clients globally and expand their reach beyond local borders with this dual-channel strategy. Additionally, niche online retailers that focus on rare or difficult-to-find goods have become more widespread, meeting global demand that may not be attainable locally (D. Consoli, 2016). While large brands often use e-commerce to maintain customer loyalty, small businesses primarily use it to build new customers and reach broader markets. The evolution of technology and the growth of cost-effective, open-source platforms have reduced the entry barriers that once limited SMEs from entering the e-commerce environment (D. Consoli, 2016). Global online marketplaces have also leveled the playing field by providing logistical support, visibility, and safe payment methods that help alleviate transaction and trust issues that are frequently connected to lesser-known websites. In addition to increased visibility, e-commerce gives small businesses access to useful and perceptive tools like comparison pricing, real-time analytics, and consumer feedback, which further equips them to adapt, expand, and prosper in the global digital economy (D. Consoli, 2016).

Marketing and Customer Engagement

Personalization in e-commerce, powered by artificial intelligence (AI), has become a turning force in boosting customer engagement and driving business success. By evaluating vast amounts of consumer data, AI allows businesses to offer highly personalised shopping experiences that align with individual preferences, behaviors, and purchase patterns. This exciting personalization is visible in characteristics such as recommendation systems, which recommend products based on user history, and AI-driven chatbots that provide real-time, customized assistance and guidance. Companies like Amazon have employed these technologies to create seamless and relevant customer journeys, increasing both conversion rates and brand loyalty. Furthermore, AI helps businesses maximise marketing campaigns and predict customer needs, leading to improved decision-making and operational efficiency. However, while personalization offers significant benefits, it also raises ethical concerns, particularly regarding data privacy. As consumers become more aware of how their personal data is collected and used, e-commerce platforms must create a careful balance between customization and transparency to maintain trust. Overall, AI-enhanced personalization is reshaping the e-commerce environment, offering businesses new ways to stay competitive in an increasingly data-driven market. (R. Perumallaplli, 2025)

In the e-commerce industry, influencer marketing and content production have emerged as key tactics that greatly enhance the way that companies interact with their target audience. Influencers are essential to humanizing businesses and building trust via genuine interaction as digital platforms grow more and more important in marketing, especially with younger, digitally native audiences. Each type of influencer, micro, macro, mega, and nano, brings something special to the table, whether it's the wide-ranging impact of celebrity endorsements or the individualized outreach of nano-influencers. These influencers help convey brand stories, give product demos, and produce eye-catching, informative material that enlightens and engages potential clients. Personalized suggestions and interactive content such as live sessions, Q&As, and giveaways help intensify customer involvement and encourage direct engagement with brands. In addition to this, influencers act as social proof, validating product choices and building communities around shared interests. In addition to raising conversion rates, this trust-driven dynamic strengthens brand loyalty. Furthermore, influencer-generated content gives businesses a feedback loop by providing insightful information about the attitudes and preferences of their customers. E-commerce platforms may increase awareness, influence consumer choices, and create a more engaging, emotionally impactful purchasing experience by combining influencer marketing with strategic content production. (U. Karthigai Selvi, et. al, 2024 and Dr. P. Prasanthi, et. al. 2024)

The rapid shift from traditional retail to a more integrated omnichannel presence has become an essential strategy for businesses adapting to evolving consumer behaviors and digital innovations. The pandemic emphasised the importance of e-commerce, compelling many brick-and-mortar companies to urgently integrate digital mediums and tools to sustain operations and reach customers. This transition involves not only adopting online selling platforms but also aligning them with offline operations to elevate the overall customer experience. Companies implementing omnichannel strategies benefit from expanded market reach, improved sales, and greater customer engagement by offering effortless, customised experiences across numerous touchpoints such as websites, mobile apps, and physical stores. Nevertheless, this integration necessitates a careful reorganization of supply chain, marketing, and sales procedures, including IT infrastructure, data management, and CRM systems. The ability of the company to handle online and physical channels as interrelated entities that provide logical and consistent messaging, effective logistics, and tailored support throughout the customer experience is essential to the success of this transition. Omnichannel e-commerce methods, when properly implemented, improve consumer loyalty, ease processes, and help businesses stay competitive in a market that is becoming more and more digital. (V. Belvedere, et. al., 2021)

Empowerment and Inclusion

Digitalization has revolutionized women-led entrepreneurship in e-commerce by breaking traditional barriers and expanding access to markets, capital, and knowledge. Through digital tools like e-commerce platforms, social media, and mobile banking, women, particularly in developing countries have been able to overcome restrictions related to mobility, education, and finance. Digital literacy, which is based on Human Capital Theory (HCT), enables women to manage enterprises via the internet, expand their networks, and improve their abilities. Flexible working environments are made possible by technologies like AI-driven marketing, online payment systems, and virtual training platforms, which assist women in balancing domestic duties and expanding their businesses. More beneficial involvement is being made possible by focused rules, training programs, and mentorship initiatives, despite enduring obstacles like

poor infrastructure, restricted device access, and cultural norms. Women are changing the landscape of digital entrepreneurship and making economic progress by embracing digital tools. (R. Akter, 2025)
Opportunities for e-commerce in rural and semi-urban areas have grown tremendously as a result of increased internet penetration, growing smartphone usage, and encouraging government initiatives. Rural regions offer a huge untapped market, with a significant portion of the population now accustomed to using smartphones and other digital tools. Residents in these areas are increasingly able to access online platforms and frequently choose to purchase necessities like electronics, kitchenware, and baby supplies, thanks to rising levels of digital literacy and smartphone accessibility. Because these areas have low return rates for need-based purchases, businesses can save money on logistics. Initiatives aimed at expanding digital connectivity and inclusion have also increased access, and rural customers are specifically catered to with features like cash on delivery, regional language support, and simplified mobile apps. Because of this, e-commerce is expanding quickly in rural and semi-urban regions, providing small enterprises with a wealth of opportunities and fostering inclusive digital retail ecosystems. (Dr. V. Kumar, 2019)

Chapter 3: Regional and Platform-Specific Case Studies

A. Amazon

E-commerce supply chain efficiency is the capacity of an e-commerce company to deliver products to customers in a time, cost, and sufficient manner. It includes all aspects of the supply chain, from product procurement to warehousing and delivery. E-commerce supply chain efficiency is important for many. . It allows e-commerce companies to offer their customers competitive prices. It helps to improve customer satisfaction by ensuring all the products are delivered on time. It also can help to reduce costs for other e-commerce companies, which want higher profits (J. Vidani, 2024). Amazon E-commerce is a leading e-commerce company. It is the world's biggest online retailer e-commerce platform with a market share of over 30%. The company has been successful because of its efficient supply chain. It is popular for its powerful supply. The company has invested heavily in technology and infrastructure to well-organise its operations and reduce costs. So as per result, Amazon can offer the best competitive prices to its customers and fast delivery times. . Amazon's supply chain is more capable of delivering products to customers quickly and without any damage, even during higher-spot shopping seasons. (J. Vidani, 2024)

Amazon's Distributional Hierarchy and Expansion

In order to establish a distributional hierarchy of facilities providing logistical access to consumer markets, Amazon's scenario highlights a consistent locational behaviour. The three steps of the distributional hierarchy are last-mile, distribution, and procurement and fulfilment. Amazon started as an online book retailer but has since developed into a web-based business with a focus on digital streaming, cloud computing, e-commerce, and artificial intelligence (AI) services. Customers may buy practically anything from the company, which uses an Amazon-to-buyer sales strategy, thanks to its enormous product variety and inventory, which includes apparel, home goods, furniture, toys, jewellery, books, movies, electronics, pet supplies, and gourmet food. Effective supply chain management is a critical component of every successful business's everyday operation. Fast supply chain performance has a significant impact on organisational operations management. The world's most successful companies, such as Amazon , heavily depend on state-of-the-art supply chain logistics techniques. As a result, in this extremely competitive sector, every link in the chain experiences substantial innovation. (J. Vidani, 2024)

The giant of 21st-century business is Amazon. It is no longer only a retailer; it is also a leading host cloud server space, a fashion designer, a producer of television and movies, a marketing platform, a delivery and logistics network, a payment provider, a credit lender, an auction house, and a big book publisher. Despite its phenomenal expansion, Amazon makes very little money because it prefers to cut prices and grow rapidly. By employing this tactic, the business has established itself as a leader in e-commerce and is now the backbone of numerous other companies that rely on it. This company's behaviour and organisational features raise anti-competitive issues, but the antitrust enquiry has spared it. This Note makes the case that the existing antitrust paradigm is ill-suited to capture the structure of market power in the contemporary economy, particularly because it links competition to "consumer welfare," which is defined as short-term price impacts. . If we use price and output as the primary metrics for measuring competition, we will be unable to recognise the possible harm that Amazon's dominance may cause. In particular, the risk of predatory pricing and the potential for anticompetitive integration across different business lines are both undervalued by the existing approach. (J. Vidani, 2024)

Competitive Risks in Platform Economics; There are two reasons why these worries are more significant when it comes to internet platforms. Firstly, the platform that market economics incentivises a business to prioritise expansion over profits, a move that has been well received by investors. Predatory pricing becomes highly logical in these circumstances, despite the fact that current doctrine regards it as improbable and irrational. Secondly, by integrating across business lines, online platforms position themselves to control the vital infrastructure that their competitors rely on, as they act as crucial middlemen. This dual function also gives a platform the ability to use data it collects about businesses that use its services to discredit those businesses. (J. Vidani, 2024)

Amazon's Role in Shaping Modern Supply Chains

The notion of supply chain management offers a way to optimise the flow of materials at the right time, place, and quantity, hence increasing the company's total productivity. The goal of this study is to determine how a supply chain management system has been implemented in Amazon's e-commerce, as the company is one of the supply chain systems under consideration today. This study employs a qualitative descriptive methodology, utilising pertinent narratives sourced from reliable sources via online resources or searches. From the 1990s until 2022, there were about 100 different E-commerce companies in the world, with a single sample being the Amazon E-commerce company. The findings demonstrate how Amazon has pushed its rivals to automate more areas of the supply chain, speed up delivery, build more warehouses, and start producing their goods. Amazon's supply chain is the most efficient in the world because of a combination of cutting-edge information technology, vast warehousing networks, multi-level inventory control, and dependable transportation. Amazon e-commerce businesses can benefit from six different supply chain management strategies: delivery options to customers; push/ pull strategy for supply chain success; Amazon's warehouse classes and zones; warehouse automation; and supply chain cost. (J. Vidani, 2024)

Amazon's Drone Innovation and Prime Air

Technology road mapping has gained popularity recently due to the benefits it offers to businesses, which include strategic planning and technology alignment with business goals. The drone technology roadmap employed by Amazon for their newest service, Amazon Prime Air, is presented in this article. The shipping costs and delivery time are two key areas where the ever-increasing competitiveness in the e-commerce

sector is quite noticeable. In an attempt to address this issue and surpass its rivals, Amazon developed the idea of drone delivery. Drones are a cost-effective and environmentally friendly shipping option that Amazon chose to reduce emissions, expedite delivery, and satisfy customers. Because of how quickly innovations in engineering are occurring, it is always challenging to forecast future technological developments. It is more difficult to foresee them in the absence of past data. Since drones have been around for a while, it is difficult to foresee the future. This article focuses on drones, which Amazon plans to employ for 30-minute Prime Air home delivery services. One of the main motivations behind the use of drones is the fact that time is extremely valuable in today's world. Drones can now be used by the military, to film sports and movies, assist in search and rescue missions, and monitor animals. Because of how quickly technology is developing every day, drones are turning out to be quite helpful to us in every way. (J. Vidani, 2024)

Logistical Services and Evolving Consumer Behaviour

Any supply chain's design and management revolve around logistical services. Modern supply chains, like those found on Amazon are pushing the boundaries of traditional markets in ways that both impact and are influenced by consumer behaviour thanks to recent technological advancements. Corporations are altering the way resources are used in production from an economic standpoint. In order to achieve a cost-risk trade-off equilibrium, management actions at the business level adhere to risk management and cost efficiency principles. Theoretically, the activities that are arranged inside the company's boundaries are only those that the markets cannot provide a more effective substitute for, while logistics services—like transportation, to name a few—mediate the relationship between buyers and sellers, or supply and demand in the market. Logistics must change and adapt to new and growing issues, costs, and hazards to end customers as technological innovation, societal development, and consumer behaviour threaten businesses' established boundaries. (J. Vidani, 2024)

B. Shopify

Shopify.Inc is a Canadian multinational e-commerce company based in Ottawa, Ontario. This company is part of the SaaS category (software as a service) and is considered the best e-commercing platform in the B2C category. Shopify offers online retailers a package of services "including payment, marketing, shipping, online business simplification. This has created a good alternative during the 2020 pandemic period to save small or large businesses from bankruptcy. Many supporters of online commerce are considered a new way to "escape" from the traditional economy. The company creates the flexibility to access and run your business from anywhere with an Internet connection. multiple, including web, mobile, social media, online marketplace, manage products, inventory, payments and shipping. The company reported that it had more than 1,000,000 businesses in nearly 175 countries using its platform since June 2019, with total gross merchandise volume exceeding $ 41.1 billion for the 2018 calendar year and about 18% more in the calendar year 2019. According to company reports during the first 5 months of 2020 the growth of stores, sales and profits has exceeded 95% of the value of the previous year. In fact, Shopify lists the largest businesses like Heineken, Staples, General Mills and D-Link as clients. Another factor may help explain Shopify's growing success: It serves as an alternative for all online consumers who do not want to use the Amazon platform. With the quarantine of the economy and business during the period February-June 2020, online trade was one of the 5 most developed sectors in the world economy, where the profits of companies in this sector exceeded 45-65% of profits during 2019. In this situation one of the

factors to study is consumer behavior on online B2C sales and the most demanded products by consumers in the company Shopify. (A. Braholli, 2022)

Global Economic Disruptions Due to COVID-19

The global economy is going through an abnormal period of money movement, business liquidity, supply and demand for various products and services. Since the period of March 8, 2020, the total quarantine of society and the economy has brought a great fear for a decrease in the development of the economy, for the increase of the number of bankrupt businesses, blockage of the root industries of the economy, is a global review. Recession is an economic term that implies a decline in a country's economic activity, a contraction of the business cycle reflected in real GDP, real income, employment, industrial production and wholesale-retail. This stage occurs when there is a large decline in spending in an economy.An element of the review such as sales-purchases have been greatly affected by the pandemic. For a period of 3 months all physical stores in the US, Europe and Asia closed and the most affected industry was the fashion, aviation, and international trade industries. Small and medium businesses took a strong hit by creating stock of products, profit went towards zero as demand went to zero. So supply-demand was shaken a lot. According to the New York Times over 1.5 million businesses closed for the March-May period and losses exceeded $ 800 billion in the US, where the restaurant and bar industry alone suffered $ 450 billion in losses. As news of COVID-19 spread and as a pandemic was officially declared by the World Health Organization, people responded by settling in their homes. They bought medical products such as hand sanitizer, masks and essential household items such as toilet paper and accompanying products. (A. Braholli, 2022)

Psychological Reactions and Gendered Shopping Behavior

People react to crises in different ways. When faced with an insecure, dangerous situation over which we have no control, we tend to try everything so that we can feel as if we have everything under control. Paul Marsden, a consumer behavior psychologist at the University of the Arts London, was quoted by CNBC as saying: "Putting panic can be understood as playing with our three basic needs of psychology." These needs are autonomy (or the need to feel in control of his actions), connection (the need to feel that we are doing something for the benefit of our families) and competence (the need to feel like smart buyers making the choice of proper). While the data show that shopping behaviors are changing based on generational changes, we are also seeing gender-based changes. Survey data show that women are more likely to worry about the effects of COVID-19. It also shows that men are more likely to influence their buying behaviors. One-third of men, compared to 25% of women, reported that the pandemic has affected how much they spend on products. Moreover, 36% of men, compared to 28% of women, reported that they influence their spending on experiences (travel, restaurants, entertainment, etc.) Men were the ones who did the most shopping online and avoided experiences inside stores. This includes taking advantage of options that limit in-store interactions such as BOPIS being part of Shopify (online shopping, in-store purchases), back-end acquisitions and subscription services. Retailing from the internet has increased significantly and is becoming the main focus of consumer spending, this also applies to services. From the survey created by Smart Company, the reasons for use that had significantly increased the desire to shop online during the pandemic were: • Easier to compare and find the lowest price. • Ease of shopping anytime anywhere. • Free shipping and return policies. • Avoiding stressful crowds and parking.(A. Braholli, 2022)

Global Supply Chain Effects and Tech Giant Responses

The question arises who are the real winners and what role does Online Trade play, specifically in the company Shopify. As COV19 hit China, the chain effect was felt immediately in the west where the activity of Chinese factories decreased by 12.5% of their production in February 2020 compared to the same period in 2019, and also investment in fixed assets decreased by 25%. The epicenter of the virus quickly spread to Europe and then to the US and the latter was hit hard by the collapse of stock markets. Goldman Sachs analysts in an interview indicated that they were expecting a contraction in US gross domestic product at an annual rate of 5% in the second quarter of 2020 and that it would be the biggest decline since the end of 2008. But, on the other hand, unlike the 2008 crisis, this crisis is being affected by the pandemic and is not a sectoral crisis, but a radical economic crisis that affects all economic sectors. Travel bans, quarantines and fears are variables that affected the economy and airlines around the world where they managed to lay off 85% of the workforce. Governments tried to subsidize the companies that were most at risk, but the limited cash flow exhausted the opportunities to seek credit. Alibaba CEO has already called the pandemic a black swan. This is because, despite the large level of saturation of the Chinese market with various e-commerce formats, only in the last quarter of 2019 only Alibaba recorded 38% growth compared to the same period last year. This allowed a turnover of $ 23 billion to be achieved. The situation is similar in the US. Amazon is already planning to hire an additional 100,000 employees in its logistics centers and increase salaries for all employees by $ 2 per hour. This step is accompanied by a huge increase in online sales.This fragment is similar to the crisis caused by the SARS epidemic in 2003 in the state of China where e-commerce led by the Alibaba platform reached the highest levels in sales history. However, on the other hand, the economy has problems, it is sick. Without the coordinated efforts of policymakers, the fiscal and monetary systems, the economy could fall into a critical state. This moment has a direct impact on the workforce, as everything will be replaced by the technological system (online commerce), it also affects public welfare and health. (A. Braholli, 2022)

Constraints and Consumer Dependence on E-Commerce

The e-commerce business has been placed in significant constraints due to pressure from the COVID-19 pandemic. Ecommerce is identified as a variable dependent on the increase or decrease in demand on the online platform. This is influenced by the spread of COVID-19 and also by the client's attitude towards this global issue. Online business is mainly dependent on these two factors that can affect its overall market demand. For this particular reason, customers have shifted towards ecommerce approaches. This is considered the only means by which the population may be able to survive this pandemic situation. The growing audience is trying to take advantage of digital facilities for food products. The mobile app tracking unit known as Apptopia has signaled that the daily downloads of popular gaming apps like Walmart Grocery, Instacart, and Shopify have reached significantly higher levels of online sales and usage since the end of February. Changed customer behavior is also considered as an independent variable. By buying wholesale through online stores, people are now changing their shopping habits and now they are more careful about what they buy, when and how. As for the significant impact of this pandemic, customers will take the necessary precautions and are more likely to act accordingly. Just as consumer behavior is being affected, in the same way, the effect of the COVID-19 explosion on e-commerce is affecting different geographies. For this particular reason, the customer must depend primarily on the e-commerce platform to meet the essential needs required for their core products. According to Morning Consult,

consumers in the UK, Japan and Germany were experiencing diminished confidence when shopping for groceries, while in the US, consumer confidence was close to a high level. (A. Braholli, 2022)

Digital Commerce Acceleration and Policy Restrictions

Coronavirus is considered to be one of the most infectious diseases, which appears mainly with rigorous acute respiratory syndrome. The particular disease has evolved as a pandemic public health crisis due to its widespread spread within the United States. The COVID-19 pandemic is accelerating its transition to digital commerce in a very significant way. Consumers are expected to practice social distancing. COVID19 is identified as an independent variable because the economies of countries and the world are significantly affected. Based on this particular pandemic, countries have set a higher level of restrictions for both individuals and businesses. This virus has caused a large number of disasters in the world economy. COVID-19 is presented as an independent variable in this particular study where the entire economy of the entire population relied on this particular pandemic to a greater extent. (A. Braholli, 2022)

Understanding Consumer Behavior and Its Drivers

Consumer behavior refers to the choice, purchase and consumption of goods and services to satisfy their desires. There are various processes involved in consumer behavior. Initially the consumer tries to find what goods he would like to consume, then he chooses only those goods that promise the greatest benefit. After selecting the goods, the consumer makes an estimate of the money available that he can spend. Finally, the consumer analyzes the prevailing prices of the goods and makes the decision about the goods he should consume. In other words, every consumer today judges the value of a brand and chooses the service only after being satisfied with the quality of the product, the additional service and the elements of trust. There are various other factors that affect consumer purchases such as cultural, social, personal and psychological. The explanation of these factors is given below

1. Cultural factors: Consumer behavior is profoundly influenced by cultural factors such as: buyer culture, subculture and social class.
2. Social factors: They influence consumer shopping behavior. Important social factors are reference groups, family, role and status.
3. Personal factors: They influence consumer behavior. Some of the important personal factors that influence buying behavior are: lifestyle, economic situation, profession, age, personality and self-concept. These factors became important elements in the study of consumer behavior in shifting purchases towards e-commerce in the food and household sector.
4. Psychological factors. There are four important psychological factors that influence consumer buyer behavior. These are: perception, motivation, learning, beliefs and attitudes.

Political and Industry-Specific Trends in E-Commerce

Many people at different times are influenced by savage or soft politics and international relations. A concrete case is that of Chinese products imported to the US, which during the pandemic period had a decline of 38%. In reality, e-commerce sales are not on an upward trend across all of its sectors, although some industries are seeing high levels of growth. This is especially true for online retailers of hygiene products, groceries and household items. Shopify.Inc, the largest software in Canada, has grown over 135%. During this period, he stated that he has seen the opening of numerous online stores for food products and household items that were associated with additional hygiene products. A study done by

Engine found that people are spending on average 10-30% more money and time online. Online food trade grew in the second week of March as shoppers turned online to find goods they needed that were not available at their local grocery stores. (A. Braholli, 2022)

Introduction to Etsy as a Platform Economy Example

This case study is the e-commerce website Etsy, on which crafters can sell handmade items, craft supplies, and vintage goods. Etsy's case is a telling one for a number of reasons. The company's name has become a shorthand for platforms on which individuals sell items they have created, with news media and fledgling entrepreneurs explaining new sites by dubbing them "an Etsy for X". It is also one of the most visible benefit corporations (B-Corps), companies which are certified and evaluated by the nonprofit B Lab on "rigorous standards of social and environmental performance, accountability, and transparency". The B Lab also lobbies for official legal status for B-Corps, which are now recognized in over twenty-five US states, as an alternative to the traditional C-Corporation. Etsy was the first B-Corp to hold a high-profile IPO and as such is continually analyzed by the financial press as a test case for whether companies explicitly devoted to ideals as well as profit will flounder or prove harbingers of change. Etsy is thus a case where the features of the platform economy and the dream of making the platform space—and through it, the world—a better place are particularly prominent. Etsy also intervenes in the culturally specific space of creating. Crafters tend to be female, not male, and practices of crafting and making have long roots and vibrant presents in a wide variety of ethnic and class traditions. Crafting is also regularly utilized as a therapeutic aid for people living with mental and physical disorders. If opportunities are truly opening up for people who are not the usual suspects of white, able, and middle to upper class men, they should be opening up on Etsy. (S. Close, 2016)

Etsy's Economic Model and Business Philosophy

If the Etsy platform is a party host, what kind of party are they throwing? Their economic model relies heavily on co-endeavor. All site users are required to have a credit card on file, but there are no month-to-month fees. Rather, sellers are charged twenty cents per item to list a product for four months and a 3.5% commission on the item's list price when it sells. The consumer pays tax and shipping fees. Etsy also offers sellers the option to buy advertising with the site or pay extra to promote their listings. This is a very low financial burden, particularly in comparison to physical space markets. Young London fashion designers who wished to sell in the well-known market Hyper Hyper not only had to apply for space but were charged 900 British pounds per month to rent a stall. On balance, Etsy relies heavily on sellers' labor: their images, products, and narratives are intrinsic to the company's brand and the value of the marketplace itself. Employees choose from user-created collections (called "Treasuries") to curate the front page and also regularly pick individual shops to feature in a variety of blogs and podcasts. As the company news blog explains in announcing Etsy's new B-Corp status, their philosophy is that "business has a higher social purpose beyond simply profit". (S. Close, 2016)

Promoting Entrepreneurship as Social Good

This higher social purpose is generally defined as expanding opportunities to engage in entrepreneurship. For instance, Etsy partnered with the city of Rockford, Illinois, formerly known as a hub for manufacturing furniture and more recently as a cautionary tale of post-industrial depression, to teach free business skills classes to public housing residents and high school students who know how to craft. Etsy's blog post about

the project that "this is not just about creating new Etsy shops, it's about creating entrepreneurs" highlights the way the company's idea of social purpose is structured by neoliberalism: it implies a contrast between creating Etsy shops, which might be a selfish corporate goal since the company earns commission on sales in Etsy shops, and creating entrepreneurs, which they see as a social good. Certainly, the sum of human potential is not encompassed by the idea of entrepreneurship. But the fieldwork and statistics collected by Etsy suggest that it has been a route for many people out of deadened jobs and unemployment. (S. Close, 2016)

Empowerment of Female Crafters through Etsy

This has been particularly true for women. Etsy sellers are roughly 90% female, and about half have never sold anything themselves before opening an Etsy shop. Former amateur and hobby crafters had extreme emotional reactions to their first sales and even the act of opening their shops. Tami, an amateur crafter who said she was “the most successful person on Etsy with a full-time ceramic mug business, would still say things like "I am struck by this about once a week, how weird this thing is that I do." When she started her business, she was initially embarrassed to say, out loud, “I sell mugs for a living.” Lynn, a rural Tennessee woman, had her entire shop saved in draft form but “just couldn’t hit that button” to make it public. She said she would not have been able to do it if her fiancée had not sat with her and held her hand while she opened the shop. In fact, many never themselves believed that their skills would result in saleable products but were encouraged to start shops by friends or family. In a capitalistic culture, the digital platform of Etsy provided these (overwhelmingly female) crafters with a sense of personal worth by connecting their skills with sales. (S. Close, 2016)

Racial Disparities in Representation and Validation

While white crafters spanned all manner of backgrounds, from MFA's to self-taught amateurs, the crafters of color I met all had externally validated artistic backgrounds. One group of Latino and Latina crafters were third-generation piñata makers who had split with the oppressive family business to strike out on their own, and the African-American and Asian-American women had experience in the fashion or illustration industries. No amateur or former hobbyist crafters of color. This speaks to the importance of the platform as a work site. The visual environment of the Etsy platform is overwhelmingly populated by Caucasians, both as models in photographs and as the crafters featured in company blogs or other promotional spots. Throughout the year 2013-2014, all but one of the crafters photographed and interviewed for the inspirational (and aspirational) "Quit Your Day Job" blog by Etsy employees, which features crafters who make a fulltime living from the site, appeared white in the photographs. Some of the crafters of color elected not to include pictures of their face or body in their profile and worked with white friends or business partners as models for product photographs. One African-American crafter said that her sister had actually been featured by Etsy, but that the photographs were lit in such a way so that her ethnicity was ambiguous. Given the extreme emotional anxiety experienced by white amateur crafters starting their shops, even though they continually see models of success who look like them as they browse the website, how much more difficult is it for amateur crafters of color? Their absence speaks volumes. (S. Close, 2016)

Creativity and the Concept of “Flow”

Alongside entrepreneurship, an ideal of creativity structures Etsy culture. At the level of work, creative

flow is a state wherein there are clear step-by-step goals, feedback is immediate, challenges match skills, action and awareness merge, distractions such as self-consciousness or worries of failure fade away, and the sense of time becomes distorted. Experiences of creative flow are often characterized as play, such that a wide variety of creative individuals interviewed by Csikszentmihalyi "said that it was equally true that they had worked every minute of their careers, and that they had never worked a day in all their lives"

Conclusion: Etsy's Potential and Its Limitations

Etsy serves as an influential case study of how digital platforms can foster entrepreneurship, particularly among women and marginalized groups, by lowering financial and structural barriers to market entry. As a B-Corporation, Etsy aims to balance profit with social purpose, offering support systems such as educational programs and curated promotion for sellers. However, the platform's ideal of inclusivity is complicated by underlying racial and cultural disparities in visibility and validation, as seen in the under-representation of amateur crafters of color. While Etsy has successfully enabled many to transform creative hobbies into meaningful economic activity and personal empowerment, its success story is still shaped by broader societal inequalities. In the end, Etsy reflects both the potential and the limitations of platform-based economies in creating equitable and sustainable opportunities for diverse creators. (S. Close, 2016)

Chapter 4 COVID-19 as a Catalyst for Digital Transformation

Surge in online retail and mobile commerce

Crises constantly affect the economy and adjust the business. However, crises often show the policies of companies and whether they can survive or even thrive in difficult conditions. Such crises as health (COVID-19), economic (COVID- 19, war in Ukraine), energy (because of the war in Ukraine), and others affect business and especially in retail trade. One of the most prominent and unprecedented crises, COVID–19, which is also called the double crisis (Kuckertz et al., 2020). Because of this crisis, retailers have shifted their activities from physical to virtual commerce. The COVID-19 pandemic had social and economic effects on all industries, and retail was no exception. In turn, the digital technologies already used by companies began to contribute to retailers being able to respond more quickly to customer needs, having been fundamental in fighting the COVID-19 pandemic. The retail sector has had many ups and downs between different retail formats and product categories (restrictions such as us closing physical stores, later on distance between shoppers, etc. which instantly affect the retailers' economy). The fear of this pandemic has affected different perceptions of consumers, and the shopping mentality has changed so much that retailers can develop new innovative ideas so that they can offer customers maximum satisfaction. (V. Mardosaitė, et. al. 2024)

Adoption of digital technologies

Digital technologies are the basis of digital innovative solutions. Digital technologies such as IoT, blockchain, big data, and artificial intelligence have been adopted. Other technologies such as virtual reality (VR), augmented reality (AR), and mixed reality (MR), chatbots are being developed by artificial intelligence. (V. Mardosaitė, et. al. 2024)

Lockdowns and shifts in consumer behaviour

During the unprecedented COVID-19 crisis, restrictions such as stay-at-home "lockdowns", closing schools and workplaces, and cancellation of events and public gatherings were implemented. These restrictions not only have economic consequences; they also affected the entire society, leading to dramatic

changes in the way businesses and consumers behave. Electronic commerce platforms, especially new ones, have faced many challenges such as creating a quality platform, including all necessary tools, and attracting consumers due to the COVID-19 pandemic worldwide. COVID–19 has impacted customer shopping trends on many digital platforms. (V. Mardosaitė, et. al. 2024)

Acceleration of digital commerce

Especially due to the COVID-19 pandemic, the retail platforms powered by digital technology had to be adapted quickly, and it is expected to continue to support this change as consumers and retailers adjust to new normalities. Digital technology served as an important economic stabiliser during COVID-19. COVID– 19 has highlighted the prominence of e-commerce and new business models while disrupting conventional business activities Consequently, closing substantial segments of the physical economy has promoted digitisation by enhancing the use of digital channels, particularly e-commerce. (V. Mardosaitė, et. al. 2024)

Surge in online retail statistics

Online mail order and online retailing have grown rapidly worldwide in recent years. For example, online retailing in the UK is growing much faster than in-store sales, increasing from 3.4% of the total retail sales share in 2007 to 27.9% in 2020. COVID-19 has accelerated this growth further, forcing nearly all non-grocery purchases to move online. Retailers must invest more funds in their business if they want to stay on the market. They must rethink their retail perspectives, the management of goods, preparing employees, applying new technologies, artificial intelligence, the services and goods they offer, and, sometimes, defining government requirements. It is time for retailers to continually update a new scenario and establish a spot on the market. Digitalisation has changed the status quo of the retail industry and shows no sign of slowing down. The availability of cheap data and smartphones has further changed the retail landscape. Nowadays, shopping is not just about buying a product or service, rather it is about the whole customer journey and experience. Retailers are facing challenges with digitalisation. Although they have multiple channels to offer to customers, the retailers are struggling to synchronise physical and digital channels. Retail clients now expect to be able to access everything from anywhere, at any time, thanks to the advent of digital and online shopping. The customer wants to buy customised products and services advertised on a mobile phone, tablet, or computer. In today's digital world, customers have a new frontier to explore, and businesses must learn to adapt quickly or risk going extinct. (V. Mardosaitė, et. al. 2024)

Small retailers' digital adaptation

At first, it was not easy for small retailers. For example, research in Belgium showed that overall respondents indicated a loss in turnover of more than 75%. Of these businesses, only 40% operated an online sales channel (e.g., website, app, social media) before March 2020. The survey, however, notes a significant response to the pandemic by retailers. Fifty percent of those who did not operate an online channel before the pandemic opened a webshop at the beginning of the lockdown. As a result, an estimated 70% of the small entrepreneurs had a working online channel during the first pandemic wave lockdown. For example, food and grocery retailers in South Africa initiatives contributed to a record increase in online sales of more than 50% in the country for 2020. (V. Mardosaitė, et. al. 2024)

Rise of innovative digital solutions

The growth in online retail was fast; for example, researchers collected data from Twitter and found that due to the COVID-19 lockdown and fear of contracting the virus, many people preferred shopping online (20.7%) that included buying essential items. To cope with this increase in online sales, retailers had the option of opening or updating online stores. Opening or updating e-shops was a challenge for retailers

because they needed to offer quality and comfort for consumers. In this case, innovative digital solutions were adopted by retailers. Digital technologies helped retailers, for example, by enabling enterprises to meet consumer needs through data and provide consumers with precision products and services. (V. Mardosaitė, et. al. 2024)

Transformation of business models

Changes in the social paradigm, technological and digital trends, as well as the negative impacts of the macro environment, are also reflected in changes in retail business models, which are becoming a multi-channel means of value creation. The research in Bratislava results suggest five key areas in business model design, namely supply chain; online or digital world; communication and price; geo-marketing, and customer satisfaction. Based on the above factors, three homogeneous groups were identified: online innovators, international retail chains, regional chains of retail outlets. (V. Mardosaitė, et. al. 2024)

Rise of online innovators

Based on research results, the most important aspect in this case is online innovators which we will analyse. The term "online innovators" refers specifically to their characteristic feature within the activities, which focuses primarily on innovation in the online environment. These outlets are often pioneers in online innovation. For example, online retailers reduce the time of delivery of products to the customer and, as a consequence, increase customer satisfaction with the work of the retailer, forming loyalty to the store. Current innovations in retailing range from changes in business models, store formats, and technologies to fundamentally new ideas and concepts for pursuing growth opportunities in global markets. For example, online retailers use the wordless shopping service to solve the product valuation problem. Online innovators became trendy during the COVID-19 pandemic online electronic stores helped retailers to make their businesses not only survive but grow as well. (V. Mardosaitė, et. al. 2024)

Increased use of digital payments

The spread of COVID-19 has become one of the biggest threats to the global economy and financial markets. To contain the impact of the coronavirus outbreak, many countries across the globe have taken several measures, including a nationwide lockdown; limiting movement of the entire population; shutting down public places and transport; and urging the public to stay indoors, maintain social distance, and work from home. The resulting economic disruption was huge and the short-term decline in activity for businesses, both large and small, considerable. With economic growth expected to be severely hit, the financial outlook of the digital payments sector is no different and will follow a similar trajectory, at least in the short term. But the industry's stability and potential for innovation will play an invaluable role in rebooting the economy in the new normal. The adverse effects of the COVID-19 pandemic are trickling down to major sectors of the economy, with manufacturing, auto, retail, aviation, and hospitality bearing the brunt of the lockdown. This in turn has affected fast-growing digital payments which are closely linked to the aforementioned sectors. Shut shops, travel bans and reduced discretionary spends by consumers (on dining out, movies and entertainment and so on) are further negatively impacting digital payments. Digital payment volume declines are seen in airlines, tourism, hospitality, hotels, entertainment, e-commerce (non-essentials), and restaurants, among other sectors. However, there are also a few areas that are seeing an uptick in digital payments by way of increased adoption during the lockdown. These include online grocery stores, online pharmacies, OTT players (telecom and media), EdTechs, online gaming, recharges, and utility/bill payments. Digital payment volumes are also receiving a boost through monetary assistance to the public via direct transfers to bank accounts. (M. Panwar, et. al. 2020)

Transition to the new normal

As the COVID scenario continues to unfold, its impact on the behaviour and expectations of customers, as well as those of businesses, will become more apparent. However, what is clear now is that we will settle into a new normal once the pandemic dies down. To aid the recovery and lead the emergence into this new normal, it is imperative for the digital payments ecosystem to evolve rapidly and help shape the post-COVID era. (M. Panwar, et. al. 2020)

In the short term, banks are offering fee waivers on select digital payments and cash withdrawals, while central banks have announced a three-month moratorium on loans and credit card dues, though uptake is expected to be limited due to high interest charges. Governments are providing immediate financial support through direct cash transfers, and digital payment systems are accelerating contactless and online onboarding to make transactions safer and faster.

Looking ahead, digital payments will see a strong push from governments, regulators, and banks, shifting from a convenience to a necessity. Consumer behavior is also changing: survival needs during the crisis have pushed many first-time adopters toward digital payments, and this habit is likely to continue even after the crisis ends. Real-time contactless transactions, including those enabled by wearables, will grow rapidly, moving the market toward high-volume, low-value transactions and further reducing dependence on cash. QR and link-based payments will gain popularity among small vendors such as local grocers and milkmen, enabling safer and cheaper cashless transactions. At the same time, digital benefit transfers will expand, boosting rural spending and helping economic recovery.

Other trends will include a rise in purchases converted into EMIs, as households adjust to slower growth, and businesses with strong online presence will prove more resilient than those dependent on offline models. Smaller businesses may need to tie up with payment specialists, supported by subsidized solutions from banks. The financial sector will also undergo a process overhaul, adopting video KYC, paperless loans, virtual card issuance, and fully contactless customer touchpoints. Payment processors will need to strengthen infrastructure and service quality to handle increased volumes, while growth will be driven by sectors like EdTech, telemedicine, pharma, and entertainment.

Customer education will play an important role in encouraging safe practices such as using contactless card features or self-inserting cards at POS machines. The crisis will also act as a catalyst for fintech innovation, making omnichannel payments—from physical to digital—an industry baseline, with e-commerce offers outpacing traditional PoS deals. At the same time, incumbents will be forced to focus on productivity, streamline operations for remote work, and reskill employees in response to loan moratoriums and reduced new business.

However, with the surge in digital adoption comes increased fraud risk. Ecosystem players will need to invest heavily in real-time monitoring, tokenized payments, and customer awareness campaigns to counter cyber threats. Finally, the payments industry is likely to see further consolidation, as digital payments companies—largely dependent on cash flows and risk capital—seek survival through mergers and acquisitions in the face of shrinking transaction volumes.

Conclusion on the future of digital payments

It is concluded that the downward impact of COVID-19 on the payment landscape has been profound and significant, yet not irreparable. Elements in the payment ecosystem most adaptable to disruption and least dependent on physical infrastructure have been able to withstand, mitigate, and even capitalize on the crisis, turning an imminent threat to their advantage. The pandemic has compelled individuals as well as organizations to re-evaluate their payment framework and infrastructure to incorporate considerations of

disruption mitigation and continuity planning. Additionally, the pandemic has put a spotlight on inherent flaws brought forth by rigidity or inflexibility of being overly reliant on cash as a sole method of payment, for many legacy players in the industry as well as individual consumers. The COVID-19 crisis called into question the assumption of cash being the ultimate liquid asset, causing payers to evaluate its consideration as a sacrosanct payment method with the most access and convenience. Payers have displayed considerable apprehension to revert to cash payments once they have accepted digital modes of payment. That being said, cash is not expected to disappear anytime in the near future. Cash withdrawals in several networks have displayed signs of rebounding to pre-COVID-19 levels indicating that populations still have a certain proclivity and propensity to transact in cash. Thus, COVID-19 may have given a sizable push in the endeavour to marginalize cash transactions, but not so far as to eradicate it completely. Nevertheless, COVID-19 has been a silver lining, in many ways, for the acceptability of digital payments. A key factor that served as a festering barrier towards the growth of digital was the impenetrability of existing payment infrastructure. However, the disruption caused by the pandemic allowed businesses the bandwidth to step back and reconsider their payment protocols for inclusion of digital from a streamlining and ease perspective. Also, individuals were inclined to consider digital payments in lieu of prevention to physical access to their funds. As highlighted by the polls conducted, apprehension towards digital payments, due to lack of awareness, infrastructure availability, technicality and costs involved played key reasons for non-adoption of digital payments. (M. Panwar, et. al. 2020)

B. Business Strategy Shifts

Livestreaming as an Emerging Online Shopping Form

Livestreaming has been widely used as an engaging way to connect community members. There are many reasons for livestream participation from both streamer perspectives and viewer perspectives, how people formed communities between streamers and viewers via livestreams, and different types of interactions within livestreaming communities. For example, streamers on livestream platforms such as Twitch, broadcasted the playing of video games to share gameplay skills and common interests with viewers. It has also been analyzed that viewers' negative behaviors during livestreams and how livestreaming platforms allowed viewers to report inappropriate content. Livestream platforms have also integrated communication channels to increase viewer engagement. This high degree of interactivity and engagement results in some viewers being more willing to purchase products created by streamers during a livestream or the merchandise designed by the streamers. This suggests that there is a great potential for livestreaming to be a new medium for e-commerce. (Q. Wu, et. al. 2022)

Livestreaming e-commerce, or livestream shopping, has attracted attention in recent years. Some focused on viewers' (i.e., buyers) motivations: why they watch livestreams and buy products during them. By analyzing self-reported data, it was found that utilitarian and hedonic values were two of the main values that motivated customers to shop during livestreams. Utilitarian value was related to purchase needs, whereas hedonic value was related to affective commitments to streamers. It was also found that trust was an intermediate variable that transferred affective commitment to engagement and buying on livestream shopping platforms. (Q. Wu, et. al. 2022)

A few also focused on the streamers' (i.e., sellers) perspectives. A range of selling strategies that streamers used for increasing sales revenue was reported. But few unpacked how platform designs may mediate streamers' behaviors and how these streamer practices may impact viewer's buying experiences. (Q. Wu, et. al. 2022)

Seller Behaviors on Online Shopping Platforms

Although livestream shopping is emerging, it has similarities to TV shopping and social shopping given all the shopping modalities are happening virtually. To better understand seller behaviors and selling strategies on livestream shopping platforms, we review well-studied selling behaviors in TV shopping and social shopping. (Q. Wu, et. al. 2022)

TV shopping is a shopping method dating back to the 1980's and is still popular in many countries. During a pre-recorded TV shopping program, a TV host presents products in detail, and viewers can order the products by calling the telephone number shown on the screen. Both livestream shopping and TV shopping show products in a lively way, however livestream shopping is more interactive than TV shopping. Many studies have investigated selling strategies in TV shopping. For example, Fritchie and colleagues found that social proof, scarcity, authority, commitment and consistency, liking, and reciprocation were used as selling strategies to simulate selling. These selling strategies were based on persuasion theory. TV hosts also built personal and emotional connections with viewers to foster viewer trust. For example, hosts asked questions to establish similarities with viewers. (Q. Wu, et. al. 2022)

Social shopping is another form of online shopping, by which product promotions are disseminated through personal social networks on online platforms (e.g., Facebook, Instagram) negating the need to switch to other e-commerce channels. The salespeople, or "market intermediaries," actively share product information with their social connections on social shopping platforms. Some research has studied the behaviors of market intermediaries in social shopping platforms and found that market intermediaries helped customers detect trending products, evaluated products, and provided a good price and discount to customers. In addition to providing product-related support, they also built trust with potential customers by generating and sharing content (e.g., short video) and providing emotional support. Customers reported that, in addition to trust, culture and social presence were two other factors that impacted market intermediaries' sales. (Q. Wu, et. al. 2022)

Among these selling strategies, researchers have also examined the malicious side of selling. The existing literature has extensively discussed the negative side of TV selling strategies. For example, consumers believed TV shopping was extremely risky as the product quality might be poor and the price was uncertain. TV shopping hosts were also found to use their knowledge of human behaviors and viewers' desires to implement deceptive strategies that incited purchasing. For example, TV shopping used compliance-gaining techniques to urge viewers. These techniques included using countdown timers and "sold out" signs. The host of TV shopping was also found to introduce a product with emphasis on financial prudence (e.g., bargain price and versatility) and upward mobility (e.g., items looking expensive). Studies also revealed undisclosed advertising strategies in social shopping. Undisclosed advertising is a form of advertising where influencers on social media platforms such as YouTube do not explicitly disclose their collaborative relationships with advertisers or products. Undisclosed advertising is prevalent on social media platforms, but it is hard for users to be aware of ambiguous disclosures. (Q. Wu, et. al. 2022)

Livestream shopping combines salesmanship and parasocial interaction characteristics. During a livestream, a streamer serves as the salesman to display products and build social connections with viewers. For example, a streamer who sells books in her channel may also teach history courses relevant to the promoted books and share her personal stories during her livestream. (Q. Wu, et. al. 2022)

On livestream shopping platforms, streamers can use various strategies to attract attention, increase sales, and build customer engagement. For example, Wongkitrungrueng et al. found four sales approaches were

used in livestream commerce, i.e., "transaction-based," "persuasion-based," "content-based," and "relationship-based." Through the transaction-based approach, streamers used simple selling, limit quantity/time/offer, and demonstration to facilitate their selling. Through the persuasion-based approach, streamers relied on game-prize, show, and personal characters to persuade viewers. Through the content-based approach, sellers provided product related or non-product related information to enrich their livestream's content. Through the relationship-based approach, streamers shared their personal life, feelings or experiences, and organized community activities to strengthen their relationships with viewers. (Q. Wu, et. al. 2022)

These characteristics result in livestream shopping differing from TV shopping and social shopping. It signals a need to investigate whether malicious selling strategies are also existing in livestream shopping. To our best knowledge, the only work that studied malicious selling in livestream is. The study suggested that a viewer's impulsive buying behavior might be related to "emotional energy," which refers to customers' affection for streamers. In this work, we aim to understand what streamers' malicious selling strategies in livestream shopping are and how livestream platform designs mediate malicious selling strategies. To address the latter question, we review the scholarship on the negative effects of interface designs on users. (Q. Wu, et. al. 2022)

Online Shopping Platform Design and Deceptive Designs

Livestream shopping is a new type of online shopping experience, thus streamers' and viewers' experience are empowered or bounded by a platform's UI designs. In the HCI community, one avenue of focus that emphasizes the negative effects of interface designs on users is "dark patterns." As a concept referring to marketing deceptive practices, nudging public policy and others, dark pattern does not yet have a consistent definition. It was initially defined as "a user interface that has been carefully crafted to trick users into doing things." Later, a new term "deceptive design" was used to emphasize the deceptive attribute in the definition and make the term more inclusive. This change is brought to the front and the new term is used in the following. Deceptive designs "deceive users while others covertly manipulate or coerce them into choices that are not in their best interests." These definitions emphasize that deceptive designs undermine individual decision-making and harm their interests. (Q. Wu, et. al. 2022)

Taxonomies have been developed to classify deceptive designs. One proposed a deceptive design taxonomy to categorize the various designs. The taxonomy consists of 12 categories, e.g., "Bait and Switch," "Disguised Ad." It was later criticized that the taxonomy mixed up context, strategy, and outcome. Thus it was simplified into five categories: "nagging," "obstruction," "sneaking," "interface interference," and "forced action." A further version was developed specifically for online shopping websites. The taxonomy included seven deceptive design categories. Compared to the earlier versions, this version added "Urgency," "Social Proof," and "Scarcity" for online shopping context, and combined multiple categories such as "Confirmshaming" and "Trick Questions" into a single "Misdirection" category. It also summarized five characteristics of deceptive designs: "Asymmetric," "Covert," "Deceptive," "Hides Information," and "Restrictive." Deceptive designs need to meet at least one of the five characteristics. It was also stated that deceptive designs should be "obnoxious, coercive, or deceitful." These properties serve to differentiate deceptive designs from non-deceptive designs. (Q. Wu, et. al. 2022)

Deceptive designs have been reported in various scenarios including e-shopping websites, mobile applications, gaming, robots, etc. Even work not particularly looking at deceptive designs also reported "bad" design practices that could potentially harm users, such as malicious interface techniques, asshole designers, privacy paradoxes, and impulsive buying. Malicious interface techniques were defined as the

intention to "deliberately sacrifice the user experience" to achieve designers' goals. Even without the presence of deceptive designs, asshole designs could still deceive users, such as restricting users' tasks, setting traps that were hard to avoid, and misrepresenting information, which highlighted designers' unethical intentions and motivations. Impulse buying in e-shopping websites was also explored. Some impulsive buying features were different from deceptive designs. For example, an impulse buying feature "Offering Returns" is not a deceptive design because it does not directly benefit e-shopping websites. (Q. Wu, et. al. 2022)

There has also been exploration of users' perceptions about deceptive designs, i.e., whether users can be aware of deceptive designs and how deceptive designs influence user behavior. It was indicated that users tended to be insensitive to deceptive designs even with hints. For example, user perception of UI deceptive designs in mobile applications was explored. An online user experiment illustrated that the presence of malicious designs was not easy for users to notice. If users were informed of the existence of deceptive designs, however, they were found to be better aware of them. It was found that deceptive techniques were perceived as less malicious by users and some of them were regarded as just sneaky and dishonest. It was found that well-educated users were less susceptible to deceptive designs than a less-educated group. The deceptive designs "hidden information," "trick questions," and "obstruction" were more likely to be manipulative than others such as "nagging," "sneaking," "forced action." The origins of deceptive designs were discussed from the disciplines of psychology and behavioral economics and possibilities were proposed to evaluate the impacts of deceptive designs on individuals such as financial loss, violation of privacy and cognitive burden. These findings indicate the need to better understand users' perceptions of, and reactions to, deceptive designs with the purpose of mitigating harm. (Q. Wu, et. al. 2022)

In this present research, with the reported malicious selling in livestream shopping, there may be some designs that impair viewers' decision-making and purchase behaviors due to the ways that streamers use these designs for malicious selling purposes. Thus, it was investigated what malicious selling strategies were used by streamers on livestream shopping platforms and how these designs might fluidly turn into deceptive designs during livestream shopping scenarios. (Q. Wu, et. al. 2022)

Localised Logistics:

The logistics and the customer service – the non-glamorous parts of the business – are the biggest problem with e-commerce. A lot of these companies that are coming online spend all their money and effort building a beautiful Web site and then they can't get the stuff to the customer. (J. Joong-Kun Cho, et. al. 2008)

E-commerce shipments require an entirely new distribution infrastructure to handle online business. Often, these new fulfillment requirements are being outsourced and create opportunities for third-party logistics 3PL service providers. Thus, with continued growth of e-commerce, the importance of logistics capability and outsourcing is likely to increase. (J. Joong-Kun Cho, et. al. 2008)

The study of firm performance has a rich history and is grounded in several disciplines including economics, sociology, and organizational behavior. Many researchers have attempted to explain why certain firms perform better than others by linking various elements of the organization with performance measures. These studies include linking performance with strategy, structure, environment, organizational learning, market orientation, and resources. (J. Joong-Kun Cho, et. al. 2008)

Logistics capability is that part of a firm's resources – including all assets, competencies, organizational processes, firm attributes, information, knowledge, etc. – which allow it to conceive of and implement strategies that improve efficiency and effectiveness. Logistics capability has been widely studied and

measurement scales have been developed to link capability with competitive advantage and superior firm performance. These studies found that logistics activities affect performance with regards to revenue enhancement as well as cost reduction. The use of logistics capability as a means to create differentiation was also investigated. These researchers found that logistics capability makes a major contribution to corporate strategy and performance and sometimes provides competitive advantage. However, the relationship between logistics capability and firm performance in the e-commerce market environment has not been empirically investigated. (J. Joong-Kun Cho, et. al. 2008)

The external provision of logistics services, commonly known as 3PL, is part of an ongoing trend toward outsourcing logistics activities by manufacturers, distributors and retailers. The term "logistics outsourcing" is often equated with contract logistics, 3PL, and logistics-services providers. Although there exists a general consensus that all of these terms broadly describe the same activity, there is a need to define the meaning precisely for the purpose of this research. (J. Joong-Kun Cho, et. al. 2008)

3PL is defigned as "using the services of an external supplier to perform some or all of a firm's logistics function." Langley et al. also defined a 3PL provider as a company that "provides multiple logistics services for its customers." From a more legalistic perspective, 3PL is sometimes discussed in the context of "contract" logistics, which suggests "a process whereby the shipper and third parties enter into an agreement for specific services at specific costs over some identifiable time horizon." A more recent definition of 3PL comes from Murphy and Poist. After studying previous third-party literature, they defined 3PL as:

[...] a relationship between a shipper and third party which, compared with basic services, has more customized offerings, encompasses a broader number of service functions and is characterized by a longer-term, more mutually beneficial relationship. (J. Joong-Kun Cho, et. al. 2008)

There exist different areas of logistics services that a firm may outsource to third-party service providers. Recent research shows that traditional logistics activities such as outbound transportation, freight bill auditing/payment, warehousing, inbound transportation, and freight consolidation/distribution are the most frequently outsourced services. Other major outsourced activities include cross-docking, minor manufacturing activities, product marketing/labeling/packaging, product returns, traffic management/fleet operations, and information technology. It has also been noted that sophisticated users have outsourced their entire supply chains to a single 3PL or a few 3PLs. This observation is consistent with earlier findings that firms prefer their 3PL providers to broaden their service offerings. (J. Joong-Kun Cho, et. al. 2008)

Chapter 5: Challenges and Limitations

There are many issues that serve as a problem that will make it a challenge to start and operate an e-commerce business. These challenges are the existing barriers that make it hard for inhabitants to approach e-commerce in their areas. These challenges can be generated from external and internal factors. For instance, the external factors are from the environment issue, security issue, legal issue, and so on. Meanwhile, the internal factors are mostly generated from the people. For example, linguistic barriers, trust issues, cultural problems, and so forth. These challenges will be discussed in more detail in the following passages. (T. HooiMei, et. al. 2022)

Inefficient and incompetent internet services

One of the core challenges of conducting ecommerce businesses is the inefficient and incompetent internet services. As a matter of fact, there are some areas with no service connection at all. According to a press release by the International Telecommunication Union (ITU), about 38 to 72 percent of households are

able to access the internet around the world. Poor internet connectivity is mainly caused by the problems of inadequate broadband infrastructure. Weaker broadband infrastructure is typically adopted compared to other areas. The geographical areas are naturally located outside towns and cities. This natural environment causes the problem of distance and reduces the effectiveness of Internet connectivity. Therefore, a good broadband infrastructure needs to be installed in order to remain viable in e-commerce businesses as it helps to bring down the barrier of distance. As such, it connects people and gives accessibility to a wide range of essential and desirable resources successfully. (T. HooiMei, et. al. 2022)

Consequently, this factor becomes the challenge of starting and operating e-commerce businesses. For instance, research revealed the problem of the community having difficulties accessing the Internet shows the internet infrastructures are relatively backward and eventually makes it hard to penetrate e-commerce business. The poor connectivity might cause errors or technical problems when choosing and purchasing a product or service, and interrupting the e-payment processes which hinders the sellers from implementing online businesses. (T. HooiMei, et. al. 2022)

The citizens revealed that e-payment is one of the prime reasons to hinder the e-commerce growth as there is unavailability of local payment gateway. Moreover, the slow downloads of the images that showcase the products and services of the sellers on an e-commerce site give rise to the inconvenience to the consumers. Thus, the slow internet speed problem heavily impacted the e-commerce businesses as the internet plays a crucial part in affecting the sales volume, since only the high resolution images can showcase the products and services perfectly.(T. HooiMei, et. al. 2022)

Contrastingly, an efficient broadband infrastructure enhances the connection and definitely prevents the problematic issues to make the transaction smoother. Broadband is important for both parties which are the residents and the sellers of e-commerce businesses in order to make e-commerce feasible. (T. HooiMei, et. al. 2022)

In short, the inefficient and incompetent internet services such as weak broadband infrastructure is a challenge for the sellers to implement online businesses to the communities. (T. HooiMei, et. al. 2022)

Logistics services

Although the logistics services vary across the countries, it is commonly acknowledged that a delivery for the consumers from more remote areas is costing more money and also more time consuming compared to deliveries inside the city. (T. HooiMei, et. al. 2022)

The high cost of logistics can be caused by complex logistics requirements. The factors that influence the speed of delivery often depend on the size, scale, and location. So, in order to deliver orders expeditiously and efficiently, it demands the use of a specialized freight service which in turn increases the cost of delivery considerably. (T. HooiMei, et. al. 2022)

The time consuming issue is usually caused by the distance of the delivering destination. As the majority of transportation is done by road, especially since there isn't much air transportation, the delivery time is lengthy and has a risk of damaging the goods. (T. HooiMei, et. al. 2022)

But fortunately, this situation is showing an improvement in some countries as they are already working on improving logistics. Private companies and e-commerce platforms in some countries are in the process of manufacturing their logistical chains. (T. HooiMei, et. al. 2022)

Linguistic barrier

Language, one who uses his tongue freely. The linguistic barrier brings substantial effects to the e-commerce industry. This is because English is recognised as a universal language of the internet. Hence, this language becomes the success factor of e-commerce adoption to act as the medium of communication

in the marketplace. The majority of the web content and software are written in English language. However, most of the population in developing countries are unable to read or write English language and eventually this situation leads to the low engagement in e-commerce unless the contents in the website are provided in native language. (T. HooiMei, et. al. 2022)

This study even intensifies the challenge of starting e-commerce because many are proven to have a lack of foundation in English language skills. This is because communities face difficulties in learning English such as the unprepared state to learn this language and the lack of professional training on the teachers. As the proficiency of English is poor, this is the challenge of implementing e-commerce businesses. (T. HooiMei, et. al. 2022)

Lack of capability in English language or unavailability of web content in native language results in lower e-commerce adoption rate. Thus, the contents are needed to be readable in order to make online businesses feasible successfully. (T. HooiMei, et. al. 2022)

Affordability and accessibility

One of the significant challenges is the affordability and accessibility of the inhabitants, such as to afford and to access the digital platform services. The cost of digital platform service might be considerably high for the people where the financial situation is not very good. Other than the digital platform service, the electronic device itself is not something that everyone possesses. After all, the price of the device to access e-commerce such as smartphone, tablet, PC, or laptop, the billing, and the maintenance they need in the long run is not low. (T. HooiMei, et. al. 2022)

Trust issues

Traditionally, people will have a direct face-to-face contact between the customer and the seller while shopping. The customer can personally see, touch, and hold the products they want to consider buying. They also can converse with the seller to ask directly about the products, and maybe with a bit of haggling. After that, they are able to pay either with cash, credit card, e-money, or any other paying methods, then bring the paid products home. (T. HooiMei, et. al. 2022)

However, as stated before, e-commerce is a shopping or an exchanging goods activity where the transaction is done using the internet. Hence, the buyer and seller don't have direct contact. While it is a great thing in this Covid-19 pandemic era where people should distance themselves and avoid direct contact with other people, those who are used to the traditional way of shopping may be having a lack of trust toward this e-commerce business. (T. HooiMei, et. al. 2022)

These people who are used to the traditional way of shopping might be concerned about the quality of the product as they cannot see the product directly. They also might be afraid of fraud where the seller didn't send the product after the buyer transferred the money. They need some kind of a guarantee to trust this e-commerce business. So, lack of trust and guarantees act as the barriers that make people hesitate to approach e-commerce. (T. HooiMei, et. al. 2022)

Security

With the rise of e-commerce technology, some irresponsible people want to get detailed data of customer information by attacking the firewall e-commerce system. Some people might not be aware of this and have a high risk of falling victim to these attacks. These data will later be used to harm the users. Therefore, every company must improve the security system or reduce the risk of security threats, such as by knowing where systems are vulnerable to attack. That's why knowing the types of threats on the web is recommended, such as the types below:

1. **Viruses**: have the ability to copy and spread to computer files.

2. **Worms**: they spread into computers and often rely on action and vulnerabilities.
3. **Bots**: can install computer applications secretly and can reply or command back to attackers.
4. **Browser parasites**: can monitor and change browser settings of the users

Legal issue

With the large number of e-commerce users, surely e-commerce cannot be separated from fraud and internet scam. There is a risk of crime over the internet when the buyers and sellers do not know each other and cannot even see each other. Since some people aren't attentive to these legal issues, the risk of being scammed in e-commerce makes them afraid to do e-commerce shopping. These are some legal issues of e-commerce that usually occur:

1. **Fraud on the internet**: internet scams have increased by leaps and bounds. This is a huge problem for online merchant;
2. **Copyright protection issue**: copyright law protects intellectual property in its many forms, and cannot be used freely. But, it's very difficult to protect intellectual property in e-commerce;
3. **Privacy issues**: protection is a significant issue for both the sellers and customers. The customers share their data with the online sellers and they assume that sellers would keep their data private. With only one little mistake and leak of data information about the customers, not only the seller will lose future potential customers, the shop's image and reputation also will be questioned.

E-commerce was defined as the buying, selling, and exchanging of goods and services on the internet. In the Covid-19 pandemic era, the major trends of teleworking and e-commerce had proved that online business was an important tool to accelerate the growth of the economy and cater to consumers' demand at the same time. (T. HooiMei, et. al. 2022)

Many people in most countries usually choose to go to a big city to work and study. However, to stop the spread of the COVID-19 pandemic, the government had issued a health regulation to stay at home. To comply with this regulation, many people were required to work and study from home. Therefore, many people who worked and studied in big cities had to return back to their hometowns. (T. HooiMei, et. al. 2022)

However, e-commerce was very rare and difficult to access. This condition made the people who had to work from these places very troubled in accessing e-commerce and buying things online for their needs, which had supposedly been easy when they were in a big city. Since it was difficult to access e-commerce, it made working and studying from home difficult for many people. (T. HooiMei, et. al. 2022)

People had observed this situation and found out that there were business opportunities to conduct e-commerce. Therefore, this paper outlined the various challenges when people were starting and operating e-commerce. So, the purpose of this paper was to raise awareness for the people who wanted to start or were doing e-commerce businesses so they could make strategies to overcome the challenges. (T. HooiMei, et. al. 2022)

After doing many literature reviews, the challenges of e-commerce were inefficient and incompetent internet services, logistic services, linguistic barriers, affordability and accessibility, trust issues, security, and legal issues. (T. HooiMei, et. al. 2022)

The inefficient and incompetent internet services such as weak broadband infrastructure were one of the core challenges for the sellers to do e-commerce businesses. For logistic services, a delivery cost more money and also was more time-consuming than to common cities. In regard to the linguistic barrier, many communities were incompetent in English language skills and thus lowered the adoption rate of e-commerce businesses. (T. HooiMei, et. al. 2022)

Another significant challenge was about affordability and accessibility of the inhabitants. The financial situation was usually not very good, so the people might not have been able to afford the cost of the digital platform services and the electronic devices that in turn made them unable to access e-commerce. (T. HooiMei, et. al. 2022)

Also, as e-commerce was shopping without direct contact, lack of trust and guarantees acted as the barriers that made people hesitate to approach e-commerce. Due to the rapid development of the internet, some irresponsible people used viruses, worms, bots, and internet parasites to attack the firewall e-commerce system. Some people might not have been aware of this and had a high risk of falling victim to those attacks. (T. HooiMei, et. al. 2022)

Lastly, some people were not attentive to legal issues such as fraud and privacy issues. Thus, the risk of being scammed in e-commerce made them afraid to do e-commerce shopping. (T. HooiMei, et. al. 2022)

Chapter 6: Future Trends and Strategic Recommendations

Evolution and Growth of E-Commerce

The E-commerce Industry has come a long way since its early days. The market has matured and new players have entered the market space. In the present dynamic scenario, the e-commerce market in the B2C space is growing in demand as well as in the array of services. The transition to online purchasing from traditional purchasing is taking a long time in the market. E-commerce includes not only buying and selling goods over the Internet, but also various business processes within individual organizations that support the goal. As with e-commerce, e-business (electronic business) also has a number of different definitions and is used in a number of different contexts. (N. Chanana and S. Goele, 2012)

E-Commerce and Economic Development

A country is developing rapidly and if development is to be measured, how can we ignore the role of e-commerce in it. The internet user base might still be a mere 100 million which was much less when compared to its penetration in the US or UK but it was surely expanding at an alarming rate. The number of new entrants in this sphere was escalating daily and with growth rate reaching its zenith it could be presumed that in years to come, customary retailers would feel the need to switch to online business. Insights into increasing demand for broadband services, rising standards of living, availability of wider product ranges, reduced prices and busy lifestyles revealed this fact more prominently thereby giving way to online deals on gift vouchers. Going by the statistics, the E-commerce market was worth about $2.5 billion in 2009. It rose to $8.5 billion by 2011 thus depicting a definite surge in the last two years. According to a statement released by a leading Internet and Mobile Association, these figures reached up to $12 billion by 2012! (N. Chanana and S. Goele, 2012)

Categories of E-Commerce

To understand this scenario, we can divide E-commerce into three broad categories which include physical services, physical goods and virtual goods. Another category that was gradually making its mark was the local commerce (couponing, yellow pages, classifieds etc.) which offered significant overlaps with E-commerce.

The 1st category of physical services was definitely the major contributor which included travel ticketing, jobs, matrimonial and event management websites with travel sites accounting for 75% of all E-commerce industries! It provided attractive deals too. (N. Chanana and S. Goele, 2012)

The 2nd category of physical goods was the one gaining considerable attention, thanks to the hype created by new startups/stores being launched daily. Leaders in this division were various e-commerce platforms,

each of which offered everything from mobile phones to pet food. (N. Chanana and S. Goele, 2012)
The 3rd and final category of virtual goods and gift vouchers like online music, software's, movies, games, hotel gift vouchers, brand gift vouchers, restaurant gift vouchers etc. had been relatively lagging behind as compared to Europe and America, primarily due to piracy concerns and the social perspective of consumers. But the scenario was expected to change with the digital downloads segment expected to grow in the E-commerce market due to the explosion of mobile devices and the services available over the Internet at special discounts. (N. Chanana and S. Goele, 2012)

Attributes Contributing to Growth

Certain unique attributes of the E-commerce industry such as cash on delivery mode of payment and direct imports that lower costs considerably were probably going to bring about a speedy growth in this industry in years to come. (N. Chanana and S. Goele, 2012)

Shift in Consumer Behaviour

Online channels were playing an important role of connecting with consumers of unexplored markets. The journey of online spending that started with an increasing number of buyers of travel and holiday plans in the last decade has now extended to an increase in spending on household appliances and luxury products. While segments like apparel and luxury products had registered unprecedented growth in 2011, jewellery, electronic appliances and hardware products had shown promising growth trends as well. “Consumers are showing greater appetite to transact online, fuelling the e-commerce boom,” said a leading CEO. (N. Chanana and S. Goele, 2012)

Rise of Coupon Sites

The report also found that coupon sites were rapidly gaining popularity, with 16.5 per cent of the online population visiting the category in November 2011 – 27.2 million online users aged 15 and older accessed the retail category from a home or work computer, an increase of 18 per cent from the previous year, as consumers continued to turn to the web to shop for and purchase items and retailers continued to increase their online visibility through active marketing campaigns. (N. Chanana and S. Goele, 2012)
Increase in shoppers of the coupon sites indicated that pricing was playing the role of catalyst in bringing more and more shoppers online. Many of these shoppers had shown affinity towards affordable online goods, which were priced lesser than the market price. Some of the largest retail subcategories revealed that the coupons category was the largest with 7.6 million visitors as consumers rapidly adopted daily deal sites. Consumer electronics ranked next with 7.1 million visitors, growing at 12 per cent over the previous year, while 5.8 million online users visited comparison shopping sites, an increase of 25 per cent from the previous year. (N. Chanana and S. Goele, 2012)

PROSPECTS IN E-COMMERCE

Opportunity for Retailers

A retailer can save his existence by linking his business with the on-line distribution. By doing so, they can make available much additional information about various things to the consumers, meet electronic orders and be in touch with the consumers all the time. Therefore, E-Commerce is a good opportunity.

Opportunity for Wholesalers/Distributors

In the world of Ecommerce the existence of the wholesalers is at the greatest risk because the producer can easily ignore them and sell their goods to the retailers and the consumers. In such a situation those wholesalers can take advantage of E-Commerce who are capable of establishing contractors with reputed producers and linking their business with the on-line.

Opportunity for Producers

Producers can take advantage of e-commerce by linking themselves with on-line, by giving better information about their products to the other links in the business chain and by having a brand identity.

Opportunity for People

As more people are getting linked with E-commerce, the demand for centres providing internet facilities or cyber cafes is also increasing. Hence, the people who wish to take advantage of it can establish cyber cafes and have their benefits.

Essential Factors for Growth of E-Commerce

- **Customer convenience:** By providing Cash on Delivery payment option service to customers.
- **Replacement guarantee:** Should offer a 30-day replacement guarantee to their customers.
- **Reach:** Enabling mobile-capable sites and supporting M-Commerce services.
- **Location-based services:** Since customers these days are always on the move, promoting the right product at the right time and location becomes an integral aspect.
- **Multiple payment options:** Standard credit cards, debit cards and bank payments options should be there.
- **Right content:** Getting the right content and targeting customers with crisp and relevant information is of utmost importance to users on the move.
- **Price comparison:** Providers offering instant price comparison are highly popular amongst the price-conscious customers.
- **Shipment option:** Low-cost shipment should be there. The convenience of collecting orders post work while returning home should be there.
- **Logistical challenges:** The geographical spread throws logistical challenges. The kind of products being offered by providers should determine the logistics planning.
- **Legal challenges:** There should be a legal requirement of generating invoices for online transactions.
- **Quick service:** Timely service provided by the company.
- **Terms and conditions:** T & C should be clear and realistic.
- **Quality:** The product quality should be the same as shown on the portal.
- **Customer care centre:** A dedicated 24/7 customer care centre should be there.

Experts View About Future Growth of E-Commerce

Leading e-commerce portals include popular online retail platforms and marketplaces offering a wide range of products and services. (N. Chanana and S. Goele, 2012) Internet on mobile phones and e-commerce are set to lead the trend in the IT sector, according to industry leaders. (N. Chanana and S. Goele, 2012) Speaking at an annual business and management conference, experts identified trends such as mobile internet, social networking, e-commerce and internet video as being the most important trends for any technology company to take advantage of. (N. Chanana and S. Goele, 2012) "We have seen 80-90 per cent growth in traffic month-on-month over the last three quarters. We have been gradually increasing the pace of hiring and over the next six months, we will add about 500 people," a leading e-commerce company executive said. (N. Chanana and S. Goele, 2012) "With the growing e-commerce industry and major international players entering the market, the number of job offers would certainly look up," an online retail platform CEO said. (N. Chanana and S. Goele, 2012) The online retail segment is expected to report strong growth in the coming years owing to a growing Internet consumer base thanks to increasing use of smartphones, laptops/PCs and availability of Internet in the remotest parts. (N. Chanana and S. Goele, 2012) "e-commerce space is a booming space as Internet audiences are likely to

double in the next two-three years and this industry will require talent from various sectors like technology, product, analytics, sourcing, general management talent, merchandising and marketing," a co-founder and CEO of an online retailer said. (N. Chanana and S. Goele, 2012) Another e-commerce player has grown by over 70 per cent in headcount terms in one year over the last year and is further poised to grow by a similar percentage this year, including an augmentation of the technology team. (N. Chanana and S. Goele, 2012)

Meanwhile, the e-commerce sector is fast hiring the best talent available and this placement season saw e-commerce companies recruiting big numbers at premier institutions like leading management and technology institutes. (N. Chanana and S. Goele, 2012) According to a report by an industry body, the online retail segment is likely to be worth a significant sum by 2015 due to rising broadband availability and increasing Internet penetration, from a smaller base at present. It is growing at an annual rate of 35 per cent. (N. Chanana and S. Goele, 2012)

The future of E-Commerce is difficult to predict. There are various segments that would grow in the future like: Travel and Tourism, electronic appliances, hardware products and apparel. There are also some essential factors which will significantly contribute to the boom of the E-Commerce industry i.e. replacement guarantee, M-Commerce services, location based services, multiple payment option, right content, shipment option, legal requirement of generating invoices for online transactions, quick Service, T & C should be clear & realistic, the product quality should be same as shown on the portal, dedicated 24/7 customer care centre should be there. We found various types of opportunities for retailers, wholesalers/distributors, producers and also for people. Retailers meet electronic orders and should be in touch with the consumers all the time. Wholesalers can take advantage of E-Commerce who are capable of establishing contractors with reputed producers and linking their business with the on-line. Producers can also link themselves with on-line, by giving better information about their products to the other links in the business chain and by having a brand identity. As more people are getting linked with E-commerce, the demand for centres providing internet facilities or cyber cafes is also increasing. Hence, the people who wish to take advantage of it can establish cyber and have their benefits. People could find various opportunities of employment. On behalf of the above said reports and experts view showed that the future of e-commerce would be bright in the upcoming years if all essential factors would be implemented. (N. Chanana and S. Goele, 2012)

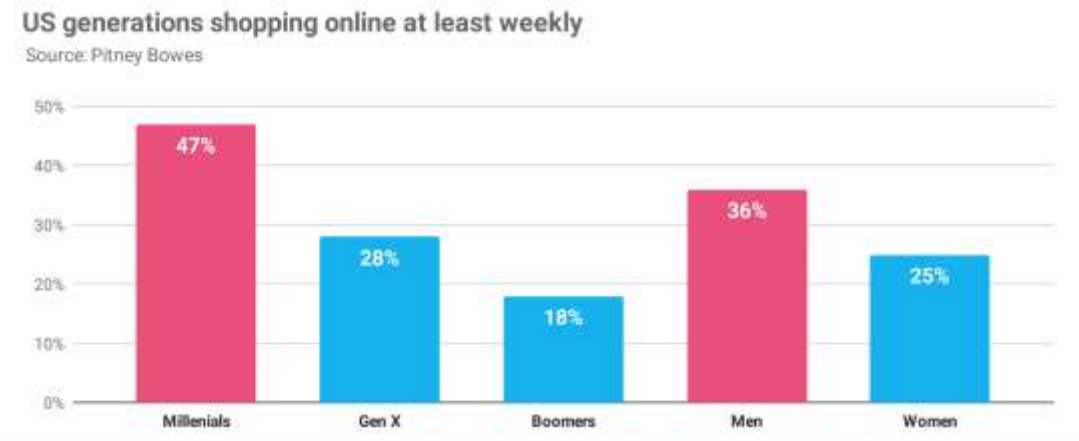


Figure 1: Who's doing the shopping online?

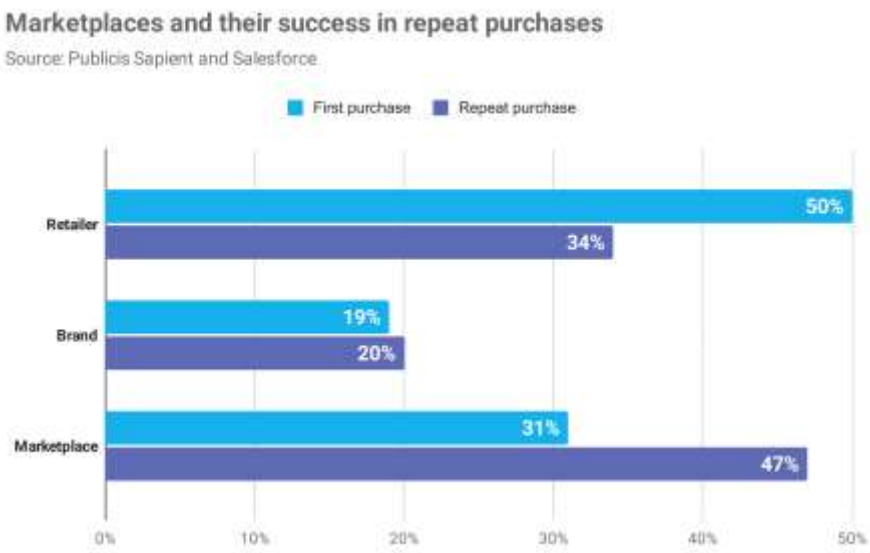


Figure 2: Where online shoppers make repeat purchases?

Chapter 7: Conclusion

This paper explored how e-commerce platforms have evolved over the past 15 years and what that evolution has meant for small businesses. At the heart of it is a story of transformation—driven by technology, accelerated by crisis, and full of both promise and complexity.

We began by unpacking how digital commerce reshaped the business landscape. From the early days of simple online storefronts to today's complex ecosystems powered by cloud computing, mobile-first design, APIs, and live streaming, the shift has been massive. E-commerce models like B2B, B2C, D2C, and C2C have given businesses of all sizes flexible ways to reach consumers and other businesses directly. Platforms have also diverged between centralized giants like Amazon and more decentralized, blockchain-driven alternatives, each with its own implications for control, data, and scalability.

As digital infrastructure matured, small businesses started to see tangible gains: access to global markets, lower operational costs, and improved efficiency. With tools like personalization engines, influencer marketing, and omnichannel strategies, even the smallest retailers could engage customers on a deeper level. Crucially, e-commerce has also empowered underrepresented groups—especially women entrepreneurs and rural sellers—by removing traditional barriers around capital, geography, and visibility.

Real-world platform examples help ground this shift. Amazon has built a logistics empire that enables small sellers to scale rapidly—but often at the cost of control. Shopify has become the toolkit of choice for direct-to-consumer brands, especially during the pandemic. And Etsy has shown how niche, community-driven platforms can unlock entrepreneurship for solo creators, particularly women, even as questions around racial representation remain.

COVID-19 was a turning point. It didn't just increase online shopping—it rewired consumer habits, accelerated mobile and digital payment adoption, and forced even the most reluctant businesses to adapt. Retail strategies evolved, livestream selling took off, and digital logistics became the new backbone of retail. But this growth hasn't come without friction. Small businesses still face real challenges: poor internet infrastructure, fragmented logistics, language and trust barriers, cybersecurity threats, and legal grey zones. Many now rely heavily on platforms that can change algorithms or policies overnight—putting sellers at risk of losing visibility, pricing control, or even their customer base.

Looking ahead, the future of e-commerce will be shaped by emerging technologies like AI, Web3, and smart logistics systems. These advances could unlock even more potential—but only if paired with supportive digital infrastructure, clear regulations, and a focus on equity and inclusion. It's expanded their reach, boosted their productivity, and enabled entirely new business models. But it has also made them more dependent—on algorithms, platforms, and payment systems they don't control. The challenge now is to build a digital economy where small businesses don't just participate, but thrive.

We need smarter, more inclusive platform policies that don't just favor scale and efficiency, but also fairness and opportunity. Small businesses should be co-creators of the digital landscape—not just passengers.

The vision is clear; a future where e-commerce serves as a true growth engine for small businesses—diverse, distributed, and resilient.

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