CHAPTER 2
LITERATURE REVIEW

This chapter synthesizes the relevant theoretical and empirical literature on B2C in e-commerce in agriculture, with a particular focus on the cherry industry in Gilgit-Baltistan, Pakistan. It begins with the theoretical background and conceptual underpinnings, along with the business models in agriculture, and covers the theoretical foundations of the study, including the Technology-Organization-Environment (TOE) framework and the Technology Acceptance Model (TAM). It later discusses global and Pakistan-based empirical studies and provides a structured summary of previous research in a table, highlighting the research gaps the current study seeks to fill.

2.1 Farmers can adopt either a business-to-business or a business-to-consumer model

Agricultural exports have generally operated under the B2B Model, in which farmers sell their produce to intermediaries, wholesalers, or exporters. While the purpose of this model may help farmers overcome the hassle of marketing and logistics it hinders their potential to achieve higher profit margins and to build direct consumer connections (Golovko et al., 2023). The B2C model also differs from the other two in that e-procurement is aimed at purchase order transactions within companies and between them and individual consumers. It allows farmers to have a chance of branding, becoming more profitable, and maintaining the freshness of products through short supply channels (Sarihan, 2024).

In Pakistan, the producers who reach out to sell to the diaspora through websites, WhatsApp, and Facebook provide potential lessons for the high-value

fruits to use B2C channels (Jamil et al., 2022). For cherries, the fruits that are perishable and a trading system based on quality, this shift from B2B to B2C distribution is likely to improve producer margins and consumer satisfaction.

2.1.1. Technology Organization Environment (TOE) Framework

The TOE model, proposed by Tornatzky and Fleischer (1990), is the dominant framework for explaining organizational adoption of technologies. This model is multi-dimensional and is made up of three major dimensions:

1. Technical conditions there must be access to technology that allows for the compatibility and complexity required to utilize internet infrastructure, e-commerce, and digital tools.
2. Organizational Characteristics, Firm size, management dedication, resources, employees' skills, and helping or harming implementation.
3. Environmental factors, Competitive market, consumer behaviour, rules and regulations, pressures from outside environments, influencing perceptions of adoption.

The TOE framework has been widely applied in agricultural and SME contexts to understand digital adoption (Ali & Siddiqui, 2021). In the case of cherry growers in Gilgit-Baltistan, technological limitations, lack of organizational resources, and environmental constraints such as logistics and policy support significantly influence readiness for B2C e-commerce adoption. Although the TOE framework includes a broad range of variables, this study adopts a context-specific operationalization by selecting only the most relevant factors. Based on the research objectives, literature review, and

empirical findings, the study focuses on technological factors such as internet connectivity and digital platform usage, organizational factors such as digital skills and training needs, and environmental factors including market structure, logistics challenges, and trust issues. These factors are considered critical in shaping the adoption of B2C e-commerce within the agricultural sector (Samat et al., 2024).

2.1.2 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was proposed by Davis (1989) has been one of the most frequently used models when examining personal technology acceptance. TAM is based on the two core cognitive beliefs:

1. Perceived Ease of Use (PEOU) is the degree to which one believes using a system would be free of effort.
2. PU (Perceived Usefulness) is the extent to which I believe that the regulatory impact assessment system (RIAS)would enhance my performance or assist me in performing tasks or other aspects to accomplish my tasks or meet my needs

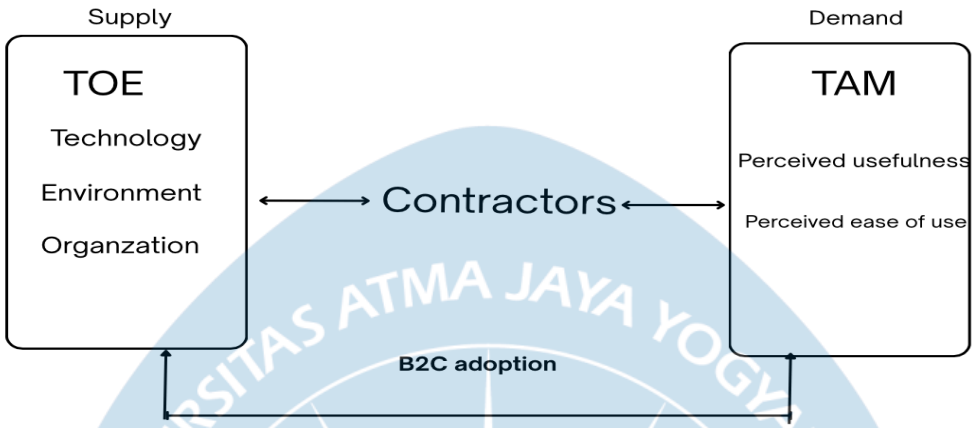
In addition to these core constructs, extended TAM studies have also incorporated factors such as trust, optimism, and social influence in explaining consumer behavior (Thomas-Francois & Somogyi, 2022).In the context of agriculture, TAM has been widely used to examine consumers' intention to purchase fresh produce online, where ease of use, usefulness, and trust play a significant role in influencing purchasing decisions. In the

case of cherries from Gilgit-Baltistan, the application of TAM provides important insights into consumer perceptions regarding online purchasing. This complements the TOE-based analysis on the supply side by incorporating the demand-side perspective of digital adoption.

2.1.3 Role of Contractors as Intermediaries

A key feature of this study is including contractors as intermediaries between the supply and demand sides. Contractors play a central role in the cherry supply chain by linking farmers to markets and often influencing pricing and distribution channels. In the proposed model, contractors are positioned between the TOE and TAM components, highlighting their role as a bridge between producers and consumers. They can either enable or limit the adoption of B2C e-commerce depending on their willingness to adopt digital platforms, manage logistics, and establish direct connections with customers. The conceptual framework suggests that both supply-side factors (TOE) and demand-side factors (TAM) are connected through the process of B2C e-commerce adoption. This relationship shows the interaction between producers, intermediaries, and consumers within digital marketplaces. B2C e-commerce adoption allows direct transactions between farmers and consumers, potentially reducing reliance on traditional intermediaries while improving market access and profitability. However, successful implementation relies on technological readiness, organizational capabilities, environmental conditions, and consumer acceptance.

Figure 2.1 theoretical framework



2.1.4 Empirical Analysis of E-commerce Adoption Among Agribusiness and Small Enterprises, Technology-organization-environment (TOE) Studies

Many factors influence the use of e-commerce that have been consistently documented across Southeast Asia and elsewhere. A study in Malaysia indicated that organizational support, perceived relative advantage, and customer pressure had a positive impact on the readiness to adopt e-commerce among agricultural traders, but security concern and government support had no significant impact on adoption readiness (Rahman et al., 2024). Similarly, technological (benefit and compatibility), organizational (firm size, readiness), and environmental (customer, competitor, external support) all significantly influence SME adoption in the food industry (Ueasathapornkit, Siriporn; Suesaowaluk, Poonphon, 2022).On the other hand, in analyzing E-commerce adoption by SMEs using TOE, found that organizational factors such as firm size and organizational readiness have a significant effect, while environmental factors, including customer pressure,

competitors, and external support, significantly affect e-commerce adoption (Setiyani & Yeny Rostiani, 2021) However, studies about Jordan have confirmed the weight of top management support, cost competitiveness, and external pressure on e-commerce adoption, in contrast to that of aggregated technology factors, whose direct effect is less compared to that of organizational and environmental components (Rawash, 2021).

In the context of B2B e-commerce in East Java, Indonesia, relative advantage, compatibility, and top management support are essentially more crucial in the early stages of adoption, while environmental factors such as government and partner pressure become more relevant as the adoption matures. Crucially, the TOE model explains a significant variance in e-commerce adoption within SMEs (Aulia Munawaroh et al., 2025).

The cherry sector of Gilgit-Baltistan, Pakistan, represents a few such dynamics despite the fact that the region produces high-quality cherries. The transition to online B2C e-commerce is still in its infancy. These factors include a lack of digital infrastructure, low digital skills of producers, and problems of market access, all important components of the TOE model (Ali & Siddiqui, 2021; The Friday Times, n.d).

As with other Asian cases, the realization of a successful B2C e-commerce process factors in the provision of fast internet service, low hardware costs, digital skills, and institutional support, as well as technological and organizational. External environment pressures, such as government policies or consumer demand,

also contribute to driving or slowing adoption (Ali & Siddiqui, 2021; Ismail & Abdul Wahid, 2020).

2.1.5 Consumer Attitudes and TAM Results

Once a shopping model is switched from B2B to B2C, consumer attitudes become crucial. Prior research in TAM literature suggests that perceived ease of use and perceived usefulness strongly determine consumers' intentions to buy online (Kusumawati et al., 2022) examined consumer perceptions of agribusiness e-marketplace opportunities in Indonesia using the Theory of Planned Behavior and the Technology Acceptance Model. The researchers discovered that the convenience of the website is the only factor that significantly influences consumer purchase intentions. However, website features, content, perceived ease of use, and perceived benefits did not significantly influence the acceptance. The two variables considered account for only 17.9% of purchase intentions, indicating that other factors, trust and personal experience, play a larger role.

Moreover, to study online shopping trends, the results found that perceived enjoyment (PE) and perceived ease of use (PEOU) significantly and positively influence online shopping intentions. However, perceived usefulness (PU) did not have a significant effect. Additionally, PEOU was strongly related to PU. The results emphasize the importance of enhancing consumer enjoyment and website usability to boost online shopping adoption, rather than focusing only on functional benefits (Cheema et al., 2013). Meanwhile, to integrate the Technology Acceptance Model and the Theory of Planned Behavior to examine factors influencing online

shopping intentions. The study found that perceived usefulness, perceived ease of use, attitude, and subjective norm significantly and positively affect consumers' online shopping intention. Conversely, perceived risk has a significant negative impact, showing that concerns about security, product quality, and privacy decrease Vietnamese consumers' willingness to shop online (Ha, 2020). Building on this (Keswani et al, 2016) extended the Technology Acceptance Model and found that trust significantly influences both perceived usefulness and perceived ease of use. Perceived Ease of Use strongly affects perceived usefulness, with user-friendly websites enhancing perceived utility. Both factors significantly shape attitudes toward online shopping, which in turn drives shopping intention. Additionally, perceived enjoyment directly boosts online shopping intention, and intention is a significant predictor of customer satisfaction.

(Zhang & Loke, 2023) applied the Technology Acceptance Model, Theory of Reasoned Action, and Theory of Planned Behavior to examine consumer attitudes and intentions toward online shopping for fresh agricultural products in China. Their findings reveal that perceived usefulness, perceived ease of use, and trust have significant positive effects on consumers' attitudes, which in turn strongly influence purchase intentions. Although perceived risk negatively affects attitudes, this effect is not statistically significant, suggesting a limited impact in this context. The study highlights perceived usefulness and trust as the most critical factors for e-commerce operators aiming to grow online markets for fresh agricultural products.

(Zarei et al., 2022) added the Technology Acceptance Model by incorporating social influence and facilitating conditions to study farmers' intentions to use agricultural e-commerce. They found that all variables positively and significantly impact behavioral intention, with Attitude being the strongest predictor, followed by perceived usefulness, facilitating conditions, social influence, and perceived ease of use. Their model explained 50.3% of the variance in intention among Iranian citrus growers. Similarly, (Tumiwa,& Tuegeh, 2025)applied an extended TAM including computer self-efficacy and stages of Attitude, Behavioral Intention, and Actual System usage among young agro-entrepreneurs in coastal Manado. They found that computer self-efficacy positively affects perceived ease of use, which in turn influences perceived usefulness and attitude. Attitude strongly predicts behavioral intention, which then significantly drives actual system usage, highlighting the importance of attitude and intention in technology adoption.

2.1.6 Review of Previous Studies

For a better overview and to compare findings with e-commerce adoption, in Table 2.1 provides an overview of some such studies. These studies emphasize the relevance of TOE and TAM models, show evidence from Pakistan and other countries, and expose inconclusiveness in previous literature.

Table 2. 1 Review of previous studies

	Author and Year	Title	Framework	Findings
1	(Rahman et al., 2024)	Technology adoption readiness among fresh agricultural traders in using the e-commerce platform in Malaysia	TOE	1. Organizational support, perceived relative advantage, and perceived customer pressure positively influence fresh agricultural traders' readiness to adopt e-commerce platforms. 2. Organizational readiness and perceived competitive pressure negatively affect technology adoption readiness. 3. Security concerns and perceived government support have no significant impact on adoption readiness.
2	(Ueasathapornkit, Siriporn; Suesaowaluk, Poonphon, 2022)	Investigating Factors in the Technology-Organization-Environment (TOE) Model that Promote Small and Medium-Sized Businesses (SMEs) in the Food Industry to Adopt E-Commerce	TOE	1. Technology factors (perceived benefit and compatibility) significantly influence e-commerce adoption. 2. Organization factors: Firm size and organizational readiness have a significant effect, but culture does not. 3. Environmental factors: Customer pressure, competitors, and external support significantly affect e-commerce adoption.

3	(Setiyani & Yeny Rostiani, 2021a)	Analysis of E-Commerce Adoption by SMEs Using the Technology-Organization-Environment (TOE) Model: A Case Study in Karawang, Indonesia	TOE	1. Organizational and environmental factors have significant positive effects on the intention to adopt e-commerce by SMEs. 2. Surprisingly, the overall technology factor did not have a significant direct effect on e-commerce adoption, though its individual components (compatibility, perceived usefulness, complexity, security concerns, relative advantage) significantly influence the perception of technology in adoption decisions. 3. Top management support, organization readiness, cost, organization culture, and size are important organizational drivers. 4. Environmental factors such as government support, competitive pressure, environmental uncertainty, and vendor quality significantly impact adoption. 5. The TOE model explains 30.4% of the variance in e-commerce adoption among SMEs in Karawang. 6. Social commerce platforms are the most commonly used among SMEs in the region.

4	(Rawash, 2021)	E-commerce Adopting TOE Model by SMEs in Jordan	TOE	1. Technological factors; Relative advantage (the benefits of adopting e-commerce) was found to have a positive and significant impact; compatibility was not statistically significant. 2. Organizational factors; Technology readiness and management support both positively and significantly influenced e-commerce adoption. 3. Environmental factors; Government support was found to positively and significantly affect e-commerce adoption, whereas competitor pressure was not significance
5	(Aulia Munawaroh et al., 2025)	B2B E-Commerce Adoption and Competitive Advantage: Insights from SMEs in East Java	TOE	Significant factors positively influencing B2B e-commerce adoption at different adoption levels include; 1. Technological; relative advantage, compatibility, and (negative) complexity 2. Organizational; top management support, firm size 3. Environmental; Business partner pressure, government support, competitive pressure (especially at higher levels)

6	(Kusumawati et al., 2022)	Consumer Perceptions of Agribusiness E-Marketplace Opportunities in Indonesia"	• Theory of Planned Behavior • Technology Acceptance Model	1. Website convenience is the only variable that significantly influences consumer purchase intentions in agribusiness e-marketplaces in Indonesia 2. Website features, website content, perceived ease of use, and perceived benefits do not significantly affect consumer purchase intentions 3. The combined influence of all studied variables (website performance, perceived ease of use, perceived benefits) accounts for only 17.9% of consumer purchase intention, with the majority influenced by other factors such as trust and personal experience.
7	(Cheema et al., 2013)	The Trend of Online Shopping in 21st Century: Impact of Enjoyment in TAM Model.	Technology Acceptance Model (TAM)	1. Perceived Enjoyment (PE) and Perceived Ease of Use (PEOU) significantly and positively influence online shopping intention ($\beta = 0.421$ and $\beta = 0.361$, $p < 0.010$). 2. Perceived Usefulness (PU) does not significantly affect online shopping intentions ($\beta = 0.041$, $p > 0.050$). 3. Perceived Ease of Use (PEOU) has a significant positive relationship with Perceived Usefulness (PU) ($\beta = 0.531$, $p < 0.010$). 4. The findings highlight the importance of focusing on consumer enjoyment and website usability for increasing online shopping adoption, rather than solely emphasizing functional benefits

8	(Ha, 2020)	The impact of perceived risk on consumers' online shopping intention: An integration of TAM and TPB	• Technology Acceptance Model (TAM) • The Theory of Planned Behavior (TPB)	1. Perceived usefulness, perceived ease of use, attitude, and subjective norm all have significant positive effects on consumers' online shopping intention 2. Perceived risk carries a significant negative effect on online shopping intention, indicating that concerns over security, product quality, and privacy reduce willingness to shop online among Vietnamese consumers
9	(Sarika et al., 2016)	A Study of Adoption Behavior for Online Shopping: An Extension of Tam Model	Technology Acceptance Model (TAM)	1. Trust significantly impacts both Perceived Usefulness and Perceived Ease of Use of online shopping platforms. 2. Perceived Ease of Use strongly influences Perceived Usefulness, with user-friendly websites increasing perceptions of utility. 3. Both Perceived Usefulness and Ease of Use significantly predict attitude towards online shopping, and positive attitude drives intention to shop online. 4. Perceived Enjoyment has a significant direct effect on online shopping intention; enhancing the enjoyment of online platforms increases intention and eventual satisfaction. 5. Intention to shop online is a significant predictor of customer satisfaction in the context of online shopping.

10	(Du, 2016)	A Study on Consumers' Intentions and Attitudes to Fresh Agricultural Products for Online Shopping in China	• Technology Acceptance Model (TAM) • Theory of Reasoned Action (TRA) • Theory of Planned Behavior (TPB)	1. Perceived Usefulness, Perceived Ease of Use, and Trust have statistically significant positive effects on consumers' attitudes toward online shopping for fresh agricultural products, which in turn positively influences intention to purchase online 2. Perceived Risk has a negative but not statistically significant effect on attitudes, indicating that although risk awareness exists, its direct impact on consumer attitude for this product category is limited in the Chinese context 3. The strongest determinants of attitude and intention are perceived usefulness and trust, highlighting their importance for e-commerce operators in building markets for fresh agricultural products online.
11	(Zarei et al., 2022)	An Extension of the Technology Acceptance Model: Understanding Farmers' Behavioral Intention towards Using Agricultural E-commerce	Technology Acceptance Model (TAM) incorporating with Social Influence and Facilitating Conditions	All TAM and extended variables (PU, PEU, Attitude, SI, FC) have positive and significant effects on farmers' intention to use agricultural e-commerce Attitude (β=0.56) is the most dominant determinant of intention, followed by Perceived Usefulness (total effect β=0.46), Facilitating Conditions (β=0.40), Social Influence (β=0.37), and Perceived Ease of Use (β=0.17 The extended TAM model explains 50.3% of the variance in behavioral intention to use agricultural e-commerce among citrus growers in Iran

12	(Tumiwa, J. R., & Tuegeh, O. D., 2025)	Adoption of E-Commerce Technology Among Young Agro-Entrepreneurs in Coastal Manado	Technology Acceptance Model incorporating additional constructs: Computer Self-Efficacy (CSE) and the stages of Attitude, Behavioral Intention to Use (BI), and Actual System Usage (ASU	1. Computer self-efficacy has a significant positive effect on Perceived Ease of Use, but not on Actual System Usage. 2. Perceived Ease of Use significantly affects both Perceived Usefulness and Attitude Toward Using, confirming TAM's foundational paths. 3. Perceived Usefulness significantly influences Attitude Toward Using, but does not have a direct significant effect on Behavioral Intention to Use. 4. Attitude Toward Using strongly predicts Behavioral Intention to Use, and Behavioral Intention to Use significantly predicts Actual System Usage

2.2 Research Focus and Propositions

This study adopts a qualitative approach, therefore, it does not employ hypotheses, which are typically used in quantitative research. Instead, guiding propositions are developed based on the literature review to structure the analysis. Propositions help direct the focus of the study and identify key factors for investigation. As noted by Robert K. Yin (2018), propositions are used to guide qualitative inquiry by linking theoretical concepts with empirical observations.

2.2.1 Technological Factor

Based on the TOE framework and prior literature, they consistently emphasize the importance of technological readiness for e-commerce adoption. For example, Technology indicators (compatibility, perceived usefulness, relative advantage, complexity, and security concern) were found to have a significant effect in the technological domain on the intention to adopt e-commerce (Tumiwa, J. R., & Tuegeh, O. D., 2025) However, on the other hand few studies have revealed that the technological factors of perceived benefit and perceived compatibility are critical and significantly support the adoption of e-commerce by SMEs in the food industry, as shown by their strong positive effects in the empirical analysis (Ueasathapornkit, Siriporn; Suesaowaluk, Poonphon, 2022). In the context of SMEs in Jordan, the technological factor that significantly affects e-commerce adoption is relative advantage, meaning that SMEs are more likely to adopt e-commerce when they perceive clear benefits and improvements from its use. In contrast, compatibility how well e-commerce fits with existing technologies, values, and practices, did not show a statistically significant impact on adoption in this study (Rawash, 2021).

The technological factors affecting B2B e-commerce adoption among SMEs in East Java are relative advantage, compatibility, and complexity. Relative advantage and compatibility both have significant positive effects on adoption, meaning SMEs are more likely to adopt B2B

e-commerce when they perceive clear benefits and believe the technology fits well with their current processes. On the other hand, complexity has a negative impact, with higher perceived complexity reducing the likelihood of adoption (Aulia Munawaroh et al., 2025). Therefore, based on these studies, the findings suggest that technology is a critical enabler of e-commerce adoption, leading to the following proposition: technological factors influence the adoption of B2C e-commerce among cherry producers in Gilgit-Baltistan.

2.2.2 Organizational Factor

The organizational factors affecting e-business (e-commerce) adoption are primarily technology readiness, being an SME's willingness and readiness to use e-business technologies, the management commitment in adopting information technology (IT) and the development of infrastructure required for IT human resources as well as overall information flow within the firm have been identified as important dimensions of technology-related factors affecting e-commerce adoption by Malaysian SME exporters. While Technology Integration refers to the ability to synchronize and align e-business technologies with existing internal systems, processes, and the behaviors of customers and suppliers. Successful integration enhances process efficiency, reduces errors, and supports smoother online operations. The study finds that technology integration has a medium effect size and is a strong, significant predictor of e-business adoption for SMEs (Rahman et al., 2024).

However, according (Setiyani & Yeny Rostiani, 2021), stated that organizational factors play an important role in the adoption of e-commerce among SMEs in Indonesia. Key organizational indicators, including cost, organizational readiness, organizational culture, organizational size, and top management support, all have a positive and meaningful impact on a firm's willingness and preparedness to adopt e-commerce solutions. Financially prepared SMEs that possess strong leadership, maintain a culture supportive of innovation, and have an adequate scale and resource base are much more likely to embrace e-commerce technologies

successfully. Moreover, (Aulia Munawaroh et al., 2025) highlight top management support and firm size as the key organizational determinants influencing B2B e-commerce adoption. Strong commitment from top management often the SME owner or manager not only allocates the allocation of necessary resources but also helps overcome resistance to technological change, thereby increasing the likelihood of successful implementation. Additionally, larger firms tend to adopt higher levels of e-commerce due to their greater resources and capacity to manage complex digital processes. Both factors demonstrate a consistently positive effect across all stages of e-commerce adoption, facilitating not only the initial uptake but also progression to more advanced levels of digital integration, which in turn enhances cost efficiency, growth, differentiation, and product quality for SMEs. Therefore, based on these studies, the findings suggest that organizational factor is a critical enabler for e-commerce adoption into the following propositions: Organizational factors influence the adoption of B2C e-commerce among cherry producers in Gilgit-Baltistan.

2.2.3 Environmental Factor

The environmental factors were found to have a significant positive influence on e-commerce adoption. Particularly, government support, competitive pressure, environmental uncertainty, and vendor quality were identified as key external drivers. A supportive environment enabled by government policies, pressure to keep pace with competitors, adaptability to market uncertainties, and access to reliable and reputable vendors greatly enhances the propensity of SMEs to engage with e-commerce. Together, these findings underscore the importance of both internal organizational capacity and external environmental conditions in shaping digital transformation among SMEs in Indonesia (Setiyani & Yeny Rostiani, 2021).

Some other environmental factors influencing the adoption of e-commerce among SMEs in Jordan primarily include government support and competitive pressure. Government support

refers to policies, investments, and legal frameworks that facilitate e-commerce development, such as funding for digital systems and comprehensive cyber-laws to protect users. The study found government support to have a significant and positive impact on e-commerce adoption, making it a key driver for SMEs engaging in digital transformation. In contrast, competitive pressure, which is the degree of pressure from industry rivals, was not found to be statistically significant in encouraging the adoption of e-commerce among Jordanian SMEs. This suggests that external assistance and incentives from the government can be more influential than market rivalry in motivating businesses to implement e-commerce solutions in developing country contexts like Jordan(Rawash, 2021).

In another study, it was also reported that environmental factors strongly shape the adoption of e-commerce among SMEs in East Java, with government support, competitive pressure, and business partner pressure emerging as the main influences. Government interventions such as incentives, regulation, and infrastructure development consistently drive higher adoption rates across all e-commerce maturity levels. The pressures from industry competitors and business partners also motivate SMEs to integrate with digital platforms, especially at more advanced stages of adoption. However, the most decisive factor for successful and sustained adoption is the proactive involvement and support of government policies and initiatives, which not only encourage e-commerce uptake but also enhance competitive advantages like reduced costs, increased quality, and business growth (Aulia Munawaroh et al., 2025). Therefore, based on these studies, the findings suggest that environmental factors are a critical enabler for e-commerce adoption into the following propositions: Environmental factors influence the adoption of B2C e-commerce among cherry producers in Gilgit-Baltistan.

2.2.4 Perceived ease of use influences intention

Studies in the TAM tradition indicate that both perceived ease of use and perceived usefulness are important determinants of online purchase intentions. The study shows that perceived ease of use and perceived enjoyment have a significant positive impact on online shopping intention, with perceived ease of use contributing 36% and perceived enjoyment 42% to shopping intention. Surprisingly, perceived usefulness does not significantly affect online shopping intention, although it is positively influenced by perceived ease of use. User-friendly online platforms and enjoyable experiences drive higher intentions to shop online, while simply being useful is not sufficient to motivate consumers in this (Cheema et al., 2013).

While in another study highlighted that perceived ease of use has a positive and significant impact on consumers' intention to shop online. When consumers believe that online shopping platforms are easy to navigate and require little effort, their intention to make online purchases increases. The research shows that perceived ease of use, along with perceived usefulness, attitude, and subjective norms, directly enhances the likelihood that consumers will intend to shop online. User-friendly interfaces and simple processes are crucial for encouraging more consumers to engage in online shopping, as they reduce barriers and promote a favorable perception of the online experience (Ha, 2020). Therefore, based on these studies, the findings suggest that perceived ease of use influences consumers' intention to purchase cherries online, which supports the following propositions: Perceived ease of use influences consumers' intention to purchase cherries online

2.2.5 Perceived Usefulness Intention

(Du, 2016) highlight that perceived ease of use has a significant positive impact on both perceived usefulness and attitude toward online shopping, which in turn strongly influences the intention to shop online. Additionally, trust positively affects both perceived usefulness and

perceived ease of use, while perceived enjoyment increases the intention to shop online. The research confirms that when online shopping is seen as easy, useful, trustworthy, and enjoyable, it leads to a stronger intention to shop online and higher customer satisfaction. The model demonstrates that user-friendly, enjoyable, and trustworthy e-commerce websites foster favorable attitudes and intentions, ultimately promoting greater adoption and satisfaction with online shopping.

Meanwhile, another study reveals that perceived usefulness, perceived ease of use, and trust have a significant positive effect on consumer attitudes toward online shopping for fresh agricultural products in China, and these positive attitudes strongly predict consumers' intentions to purchase online. Perceived risk has a negative influence on attitudes, but its impact is not statistically significant in this context. The study emphasizes that making online shopping platforms more useful, easy to use, and trustworthy boosts positive attitudes and intentions, while concerns about risk, such as security and product issues, are less influential barriers for this product category (Du, 2016). Therefore, based on these studies, the findings suggest that perceived usefulness intentions influence consumers' intention to purchase cherries online, which supports the following propositions: Perceived usefulness influences consumers' intention to purchase cherries online.