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**Risk Management Strategies in Project Negotiations**

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**ABSTRACT:**

This research investigates performance risks which emerge during vendor negotiations in Bangladesh's fast-growing e-commerce market. The research examines the risk management techniques project managers implement for vendor-related challenges while dealing with the constraints of politics, economy, society, technology, environment and law. A PESTEL framework provides the analysis framework to assess external factors' impact on vendor project results and performance. The study identifies protective techniques that project managers implement to control delivery interruptions, monetary uncertainties, cybersecurity threats and regulatory compliance issues. The study provides specific implementation insights about vendor relationship management as well as risk management strategies through stakeholder interviews combined with contract analysis. In this research capacity to combine AI along with predictive analytics to improve negotiation methods while reducing performance related risks is explored. The findings add to the knowledge about how to negotiate with vendors in a way that the e-commerce sector of Bangladesh may successfully navigate complexities to achieve sustainable growth and achieve project success.

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**KEYWORDS:** Bangladesh, e-commerce, vendor negotiations, performance risks, risk management, PESTEL, political factors, economic factors, social factors, technological factors, environmental factors, legal factors, predictive analytics, AI, project management.

## Contents

1	Introduction	6
2	Literture Review	10
	<b>2.1 Types of Risks Vendor Negotiations</b>	<b>10</b>
	<b>2.2 Types of Projects and the Role of Risk Management Strategies in Project Negotiations</b>	<b>13</b>
	<b>2.3 Performance Risk in Vendor Negotiations in E commerce</b>	<b>16</b>
	<b>2.4 Theoretical Framework</b>	<b>19</b>
	2.4.1 PESTEL Analysis	19
	2.4.2 PESTEL Analysis for Performance Risk Management in Vendor Negotiations	22
	<b>2.5 Summary of Literature Review</b>	<b>33</b>
3	Research Methodology	37
	<b>3.1 Philosophical Foundation of the Research Methodology</b>	<b>37</b>
	<b>3.2 Inductive Research Approach in Qualitative Strategy</b>	<b>38</b>
	<b>3.3 Developing the Questionnaire</b>	<b>39</b>
	<b>3.4 Empirical Data Collection Methodology</b>	<b>42</b>
	<b>3.5 Case Study Research Design</b>	<b>43</b>
	<b>3.6 Empirical Data Analysis: Thematic Analysis Approach</b>	<b>44</b>
	<b>3.7 Research Validity and Reliability</b>	<b>46</b>
	<b>3.8 Ethical Considerations in Research</b>	<b>47</b>
4	Case Study Analysis and Results	49
5	Research Summary and Implications	53
	<b>5.1 Summary of Research</b>	<b>53</b>
	<b>5.2 Theortetical Contributuion</b>	<b>57</b>
	<b>5.3 Managerial Implications</b>	<b>59</b>
	<b>5.4 Policy Implications</b>	<b>61</b>
	<b>5.5 Limitations and Future Research</b>	<b>64</b>
	References	66

Appendices	70
Appendix 1. Interview Questionnaire	<b>70</b>

**Figures**

Figure 1: Types of Risks in vendor negotiations	10
Figure 2: Performance Risk in Vendor Negotiations	19
Figure 3: Performance Risk Management in Vendor Negotiations	51

**Tables**

Table 1: Theoretical Framework and Questionnaire	41
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## 1 Introduction

The Modernizing e-commerce in Bangladesh experienced considerable growth between 2020 and 2024 because of the nation's fast digitalization process together with transforming customer tastes and forward-thinking government directives. The rise of digital platforms including Daraz and Chaldal and AjkerDeal was supported by 120 million internet users and widespread smartphone adoption which occurred by 2020. The platforms recorded explosive growth from users and transaction numbers and this development accelerated during the COVID-19 pandemic when it pushed the country toward complete online shopping and transactions. Online commerce experienced explosive growth which resulted in a sector value rise exceeding BDT 25,000 crore during 2022. Digital platform adoption gained momentum rapidly because it opened up business potential for companies throughout Bangladesh through the modernization of traditional commercial approaches in both town and country areas (Chandra Poddar, 2023).

The National Digital Commerce Policy of 2018 introduced by the government worked to establish better digital payment infrastructure and protect consumers and resolve disputes. The e-commerce growth policies implemented by the government have created management challenges that businesses must navigate through vendor relationships and contract discussions. E-commerce platforms expanded while requiring more third-party vendors who handle logistics and IT support and warehouse management and customer service activities thus contractual negotiations became essential for digital commerce project success (Amin, 2020). Project managers (PMs) had to execute dual responsibilities which involved both the alignment of vendor contracts with project missions and the management of vendor performance risks together with legal compliance risks and cost variation risks that threatened the final project results (Kerzner, 2022).

The rapid growth of e-commerce presents businesses with difficult risks to handle during contractual negotiations. Project managers in Bangladesh deal with uncertain vendor reliability and market shifts and legal compliance issues because of developing

regulation frameworks and inadequate physical infrastructure combined with inconsistent SLA enforcement (Grant, 2024). E-commerce operations strongly depend on vendors who face increased safety concerns because of their inadequate performance together with delayed schedules and inflated costs. The combination of infrastructure problems and regulatory issues produces negative impacts on project success which requires strong risk management strategies prior to contract signing (Hillson & Simon, 2020).

Current research fails to examine the ways project managers in Bangladesh address the identified risks while negotiating contracts with vendors. E-commerce projects commonly experience continuous problems including delayed deliveries together with rising costs along with inconsistent vendor performances (Grant, 2024). The problems are intensified because Bangladesh lacks strong logistics support and needs better regulatory clarity to enforce vendor accountability and performance measurement. The absence of evidence-based investigations about PM risk-handling approaches in e-commerce undermines proper decision-making support for businesses in this field. The dynamic e-commerce sector of Bangladesh requires investigation into practical methods PMs use for vendor-related risk minimization during negotiations and contractual agreements.

Project managers (PMs) ensure successful e-commerce project execution through vendor relationship management and business objective oriented contract alignment plus risk prevention that safeguards project success pathway (Kerzner, 2022). The Bangladesh e-commerce industry requires PMs to handle three primary vendor-related risks during negotiations which encompass performance risks and both legal uncertainties and logistical complications. Project managers need efficient negotiation tactics as fundamental tools to resolve problems related to unmet service level agreements and poor service quality and delayed project schedules along with cost increases in vendor relations. Structured risk management approaches enable PMs to create contracts that foresee and protect their projects from potential challenges so both vendor relationships and project goals remain successful.

The introduction of predictive analytics associated with the assistance of artificial intelligence or AI digital tools offers new possibilities for aiding enhancement in vendor negotiation techniques along with the improvement of the risk management processes. The mentioned technologies assist PMs in discoverable potential risks during the early stages of the process so they can reform contractual terms subsequently achieving superior vendor agreements (Oyekunle & Boohene, 2024). Project management professionals in Bangladesh lack sufficient understanding about how they use contemporary tools to reduce performance risks when negotiating with vendors. The research examines project manager utilization of these tools and strategies through survey results to determine their effectiveness in achieving successful contracts and sustainable projects in the e-commerce industry.

Bangladesh's e-commerce sector vendor negotiations along with risk management get analyzed through the PESTEL framework consisting of Political, Economic, Social, Technological, Environmental, and Legal dimensions. The PESTEL analytical model enables assessment of external environmental factors which shape vendor success and project vulnerability. The enforceability of vendor contracts with their obligations stems directly from political factors created by trade legislation and government policies including the National Digital Commerce Policy. The ability of vendors to meet deadlines and keep costs on target is directly impaired by economic forces that include inflation along with currency instability and restricted capital availability. The changing e-commerce market requires vendors to modify their operations based on modifications among consumers and shifts in workforce patterns (Issa et al., 2010).

The implementation of new technology faces hurdles due to insufficient infrastructure and poorly used digital instruments which makes vendor performance more difficult. Deliveries face increased risks of delays because of environmental elements like floods along with inadequate transportation systems which primarily affect rural delivery routes. Challenging situations arise from legal uncertainties because taxation laws are hard to understand and enforcement of contract terms is weak while privacy regulations fall short. These legal matters impede the definition and management of vendor responsibilities. Project managers who use PESTEL insights can better understand

external factors to develop negotiation strategies which resist environmental changes (Yuksel, 2012).

Although a lot of research has been conducted on risk management, vendor performance and negotiation strategies, a huge risk management gap is found out in understanding how these elements interact in the context of e-commerce project, more particularly in Bangladesh. Prior research mainly concentrates on attitudes utilization risks at internal project risks such as scope creep and resource allocation however disregards external issues fallout generated due to vendor relationships. This study attempts to fill the current knowledge gap by examining how PMs in Bangladesh's e-commerce can effectively manage performance-related risk in vendor negotiations. Using risk management theory and the PESTEL framework, this research aims to present actionable advice to optimize vendor management, as well as e-commerce project implementation, in the country. The central research question guiding this study is: ***How can project managers effectively mitigate performance risks in vendor negotiations and contractual agreements within Bangladesh's e-commerce industry?*** The research analyzes how project managers handle their risks during vendor negotiations by inspecting what dangers they face while discovering effective risk reduction methods for such deals. The purpose of this research is to create applicable frameworks and tools which aid project managers in their efforts to manage vendors in this fast-growing e-commerce market of Bangladesh.

## 2 Literature Review

### 2.1 Types of Risks Vendor Negotiations

Risk management is a critical piece to project negotiation success to project managers to identify assess and manage risks more effectively. During negotiations many kinds of risks occur, namely also technical, financial, of stakeholders and of outside. Recognizing these risks and using the appropriate management tactics guarantees that negotiation outcomes are consistent with project goals.

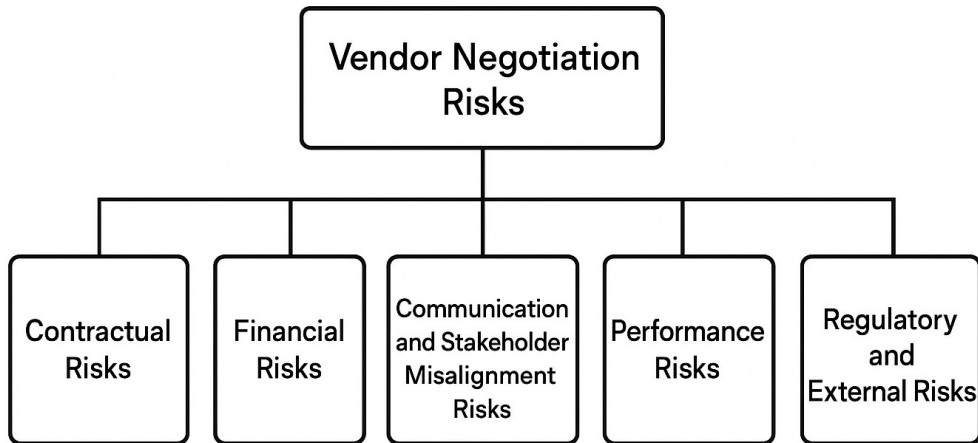


Figure 1: Types of Risks in vendor negotiations (Kerzner, 2022).

For example, first of all there are contractual risk that concerns uncertainties and difficulties that resulted from terms and conditions of a contract between the project manager and the contracted of the work Most of these risks come from the ambiguous contract clauses, undefed deliverable, the absence of penalty Clauses, absence of Clause for unforeseen event such as Delays or Variation in Scope. Unmitigated contractual risks can lead to disputes, financial losses and affecting the project outcomes. For project managers in vendor negotiations, all responsibilities, timelines and contingency plans should be written down carefully to prevent future disputes (Meredith, 2017). Well in the e-commerce sphere, an example of this is, would be third-party logistics partners

(3PL). For example, there is a vendor contract saying "same day delivery" but has no operational cut off times defined. This ambiguity can cause disputes when there are late deliveries and disappoints the customers. Such risks are some ways included clear KPIs, penalty clauses and contingency plans (Hillson & Simon, 2020).

Organizations face financial vendor negotiation risks through uncertainties about costs and payments alongside funding which affect their budgetary status. Financial risks that emerge from vendor agreements include unexpected pricing fluctuations together with delayed payments and cost variations and foreign currency effects from international operations. Financial risks that are poorly managed will create budgetary problems and project delays along with financial conflicts. Project managers need to evaluate vendor pricing structures together with payment plans while considering upcoming market trends because this enables risk reduction (Chapman & Ward, 2003). Project resources benefit from financial protection when projects establish precise terms and include funding reserves. The e-commerce industry faces financial risks during negotiations with suppliers that operate from outside the country. Changes in currency exchange rates produce substantial increases in imported goods costs which directly impacts how much profits the project can make. Project financial risks related to exchange rate changes can be managed through provisions and contract negotiations based on fixed pricing (Hillson & Simon, 2020).

Communication problems and stakeholder disagreement during vendor negotiations represent risks that primarily result from bad stakeholder interactions or poor messaging. The risks typically emerge because of ambiguous expectations together with language or cultural differences and mismatched goals and deliverables. Inadequate communication tends to produce several problems including confusion that results in drawn-out discussions and disputes over written agreements. The misalignment between stakeholders can create conflicting demands that cause delays in decision-making plus develop tension throughout negotiations (Eyieyien et al., 2024). Project managers must develop organized communication pathways while involving stakeholders actively and maintain common objectives as core priorities to minimize associated risks.

Third party logistics providers (3PLs) are real risks associated with the business e-commerce industry when it needed to bargain with the third-party logistics providers. Here, the e-commerce leader expects different delivery duration with service standards than the vendor. Meeting frequently and with good communication practices as described by Turner (2009) can reduce the gaps between stakeholders.

Performance risks emerge when there is doubt about how well vendors will meet their contractual requirements and whether they can maintain acceptable standards for quality or stay committed to their time agreements. Insufficient vendor capacity alongside lack of adequate resources and insufficient expertise generally creates such risks. Performance risks result in several negative consequences such as delayed deliverables along with substandard outcomes that eventually can turn into full project failures thus affecting project success. To effectively handle such risks a comprehensive vendor assessment process and defined performance expectations need to be established together with contractual provisions for damages or corrective actions (Hillson & Simon, 2020).

In the e-commerce world, performance risks are frequent when getting a contract from a vendor for fulfillment services. For example, a 3PL could over promise meeting a delivery deadline, without having the infrastructure or labor in place. This will ultimately lead to a holdup of deliveries when the peak season comes around, and customer satisfaction and brand reputation is all set to suffer. Managers of projects can prevent these risks by conducting audits for vendors and by using performance-based contracts (Morris et al., 2012).

Lastly, regulatory and external risks are those resulting from noncompliance, political or environmental factors affecting contracts between parties. Regulatory risks are about compliance with rules and standards as well as with laws and regulation, particularly in a cross border interaction. External risks include a change in the economic circumstances, trade barriers, natural disasters which might lead to supply chain interruption, or vendor operations disruption. These risks are many times uncontrollable and can cause a large change in project timelines and expenses. Comprehensive research into relevant regulations, drafting of compliance provisions, and preparedness

plan when external impacts (Hillson & Simon, 2020). In e-commerce industry, well known instance is when negotiating with international wholesale sport crab suppliers where import-export laws & tariff can be altered at some point. To be specific, any uptick in the tariffs imposed on the imported products could make the agreed upon prices impractical. To reduce such risks, project managers may include force majeure clauses and comply with regulatory updates that occur during bargaining (Turner, 2009).

## **2.2 Types of Projects and the Role of Risk Management Strategies in Project Negotiations**

E-commerce projects cover multiple independent domains which include website creation and supply chain improvements in addition to vendor partnerships digital advertising and technology system implementation. Various project types possess specific risks which organizations need to manage successfully for achieving their objectives. Supply chain optimization projects with logistics vendors encounter typical risks linked to delivery delays and cost surcharges. Web development projects need to manage two main risks that include possible issues with system performance alongside non-compliance with data protection requirements. Project negotiations with vendors prove essential across every project type as organizations need robust risk management approaches to combat potential challenges (Hillson & Simon 2020).

Project negotiation risk management strategies help projects to detect and evaluate and manage uncertainties which have the potential to affect the results. E-commerce project managers act as key figures by creating risk management initiatives to handle ambiguities in contracts and financial unpredictability as well as communication challenges and performance breaches. Project managers must include key performance indicators (KPIs) as well as non-compliance penalty clauses and contingency plans for disruptions in their negotiations with third-party logistics providers. The preventive handling of such concerns helps reduce conflicts while creating meaningful obligations for those involved (Grant, 2024).

Businesses that implement effective risk management solutions handle external elements and regulatory concerns which include market tariff adjustments and the

requirements in international vendor contracts. Online businesses executing supply-chain projects between different countries must consider currency market fluctuations and worldwide import-export requirements. Food majeure clauses together with appropriate due diligence and strong monitoring systems enable project managers to minimize these risks according to Chapman & Ward (2003).

Through proper risk management the company can develop better vendor connections and achieve higher decision making efficiency during their negotiations. Through their role project managers create stakeholder alignment and control expectations and build channels for effective communication which diminishes misalignment risks. The work leads to better trust relations which strengthens project collaboration and ensures projects deliver their targets alongside quality standards and affordable costs (Turner, 2009).

E-commerce projects require risk management strategies because these approaches facilitate the identification of uncertainties which subsequently leads to proper assessment and resolution of potential project outcome impact. Strategies used for risk management focus on resolving conflicts in contracts alongside handling unexpected money issues and developing better communication and managing project execution. Project managers need to handle external threats related to changing tariffs and legal issues which emerge in international vendor agreements. The management team needs both stronger relationships with vendors and better negotiating decisions. Project managers boost trust between stakeholders through expectation management alongside communication channels which assists projects to fulfill their goals with cost-effective outcomes and quality maintenance. The accomplishment of e-commerce projects depends entirely upon proper risk management approaches.

Negotiations of e-commerce projects can be classified into external and internal negotiations, which implements different dynamics, actors and decision-making processes. These talks open the gates to risk management as well as aligning objectives to a successful project. External negotiation is conversation with outside of firm, for example, with suppliers, services providers. In such negotiations, participants are typically involved by vendor's representatives and project sponsor or top managements

from the e-commerce sector. The project manager's is to enable the process, track risks, and ensure agreements concur with project objectives (For example, when signing transport services for a goods delivery contract, the project manager detects risk factors such as price swings or service level (or quality)). Methods like drafting detailed contracts with KPIs & penalty clauses handle these risks cost-effectively and pace up a good vendor partnership (Singh & Srivastava, 2021).

Internally, negotiations are like within the scope of an organization necessary among project stakeholders to such activities team members, departmental heads, Executive management, etc. The decision-makers are usually senior level or project sponsors whereas the project manager acts as a middle person by balancing competing requirements and managing risks (Cabanis-Brewin & Dinsmore, 2018). For instance, when performing internal budget distribution for an e-commerce site relaunch, the project manager, tries to convince the marketing and IT divisions to get enough resources for the task. In this context, the risks are in line with misaligned priorities or resources issues which the project manager manages by reconciling stakeholders on a shared aim and promoting open communication (Belyaeva et al., 2020).

The PM role in both internal and external negotiations goes beyond that of a facilitator to risk discovery and avoidance. In exterior negotiations, the project manager brings vendor contracts to make sure that any uncertainties like delivery holds up, financial issues, in addition to regulatory adjustments are addressed. In the internal talks, the focus is on managing stakeholder expectations, aligning resources, teamwork. The establishment of strong social relationships and trust, in both cases, is required for effective risk management and good result (Chapman & Ward, 2003).

In e-commerce development, the negotiations of these are typically intertwined. Likewise, if a project manager is committing resources externally for a fulfillment contract with a 3rd party piece of the puzzle, they must simultaneously an internal negotiation with operations and financial teams to get on the buck implications and level of service from expectations. By integrating structured risk management strategies with the negotiation types, project managers can bring together decision

making for consistent outcome and reduce the risks, thereby improving the resilience & success of the project (Singh & Srivastava, 2021).

In other words e-commerce projects involve both external and internal negotiations both with special dynamic and stakeholders. External negotiation is a conversation with vendors, suppliers or third part service provider, the project manager augments the process and manages risk. They ensure that agreements and in line with the project goals and prevent risks such as cost fluctuations and quality of service. Internal negotiation occurs within the organization with stakeholders and the project manager as a facilitator as he has to get rid of the competitive problems and manage the risks. The role of the project manager goes beyond that of a facilitator to that of a risk management and mitigation, making sure that vendor contracts account for uncertainties or control the expectations of the stakeholders. In these negotiations, the data often gets overlapped, demanding sophisticated risk methodologies to the sound of unified decision making to decrease the number of uncertainties, improving outcome of the project.

### **2.3 Performance Risk in Vendor Negotiations in E commerce**

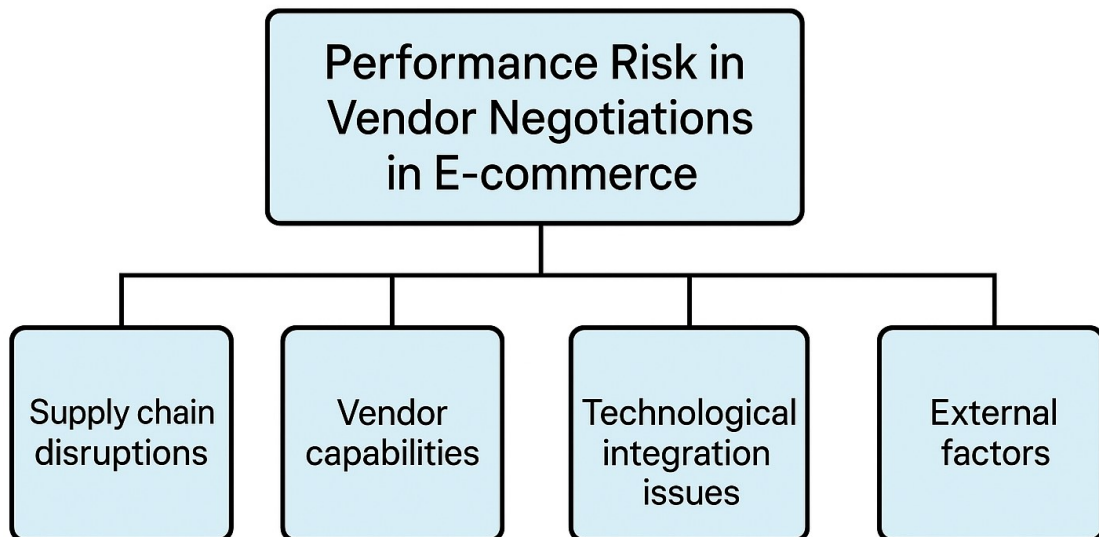
Performance risk referring to vendor negotiations refers as the possibility that a vendor won't measure up to agreed on criteria such as quality, quantity, so that generally and timely service delivery. In the world of e-commerce this risk is even more critical because it is complicated and also has the dynamics of digital sales. Tuomi, (2021) say performance risk may come from a multitude of different factors; such as supply chain interruptions, vendor capability changes and unexpected changes in the markets. In eCommerce, where customer expectations are usually high, performance failures have a heavy price tag to pay. Just take missing product shipments or inventory mismanagement will lead to missing deadlines which damage business's reputation and loses customer trust. Businesses therefore need to very critically look out for possible vendors to ascertain the level of capability they have which will enable them meet up their performance standard expected in the e-commerce sector (Basiru et al., 2025).

E-commerce vendor negotiations experience performance risks due to factors that emerge from within the organization together with those from external sources. Supply chain disruptions represent the most important risk factor because they consistently affect performance in e-commerce vendor negotiations. The authors Basiru et al. (2025) demonstrate that delivery delays and increased costs combined with inferior product quality which derive from natural disasters or geopolitical tensions or economic crises directly affect vendor performance. Vendor operational capabilities that incorporate both management approaches and infrastructure directly regulate their capacity to fulfill expectation standards. Vendors would not be able to achieve their performance goals as they are already being inhibited by lack of proper management practices and minimal experience working with demanding order quantities. Technology integration problems between the vendor's and buyer's systems create performance risks from the integration between the two systems. Basiru et al (2025) admit that e-commerce platforms function with Order Management Systems (OMS) and Warehouse Management Systems (WMS) technologies as they survive. Due to their inability to match a vendor infrastructure structure, these systems lead to operational flaws such as inventory mismatch and delayed fulfillment which threaten to raise performance risks. However, proper control of these risks during vendor negotiations should be handled by a number of strategic approaches. In any case such vendor evaluation processes should be done to an extent prior to any agreement. Businesses need to examine vendors' operational capabilities combined with their financial standing and regulatory adherence before making agreements according to Grant (2024). The evaluation process allows companies to detect performance weaknesses before they result in operational damage to the business. Setting precise performance requirements by using crystal-clear contracts is essential because contracts should include both delivery timeline regulations and standards for quality as well as clauses for penalty enforcement in cases of vendor non-compliance (as outlined in Muhammad et al., 2019). By establishing this method the risk of performance failure disputes can be reduced and ambiguity becomes minimized. Higher performance monitoring through key performance indicators enables the earliest possible detection of issues which helps stop these issues from becoming

bigger strategic risks (Bai & Sarkis, 2014). Establishing enduring partnerships with reliable vendors through building trust enables better cooperative solutions and rapid performance handling of problems. Vendors can spot upcoming issues by maintaining consistent contact with the organization which allows them to take preventive actions for sustaining consistent performance.

The PESTEL framework serves as a useful method for companies to evaluate external elements which affect vendor negotiation performance risk levels. Organizations that account for political, economic, social, technological, environmental, and legal elements end up understanding their vendor negotiation risks more fully. The sensitivity of vendors' performance to political instability, trade policies and government regulations is still very high. According to Qian & Qiu (2023), the introduction or modification of trade regulations causes delays and higher operation expense that decreases the vendor's capability to meet performance criteria. Geo political tensions lead to several supply chain disruptions and further create barriers for cross border transactions which in turn increases degree of escalation of performance risks. Rising inflation and business recessions as well as changes in consumer purchasing power will actively impact vendor performance metrics, as they all are driven by changes within the economic system. The implementation of these vendor options is to downgrade product quality requirements or increase delivery deadlines. According to Dutta et al., (2019), in order for online businesses to structure vendor contracts, it must use contemporary economic indicators. Social factors that affect vendor performance include changes in consumer preferences combined with evolving social expectations. Industry customers who shift their priorities such as prioritizing sustainability create obstacles for vendors trying to maintain their performance requirements. Social trends of eco-friendly product demand force suppliers to implement sustainable practices since their business performance depends on maintaining marketplace effectiveness (Sánchez-Alzate & Sánchez-Torres, 2017). The influence of technological elements exists in two ways by minimizing some performance risks while simultaneously worsening others. Emerging technologies help vendors achieve higher operational efficiency by eliminating mistakes during product fulfillment process. The performance of vendors operating through e-commerce faces severe

disruption when technological failures such as system outages or cyberattacks occur (Paul George, 2019). The increasing focus on sustainability within the business environment now requires vendors to prove their environmental responsibility to their clients. The failure of vendors to follow environmental rules results in operational disturbances which leads to performance risks (Zhan et al., 2021). Organizations should give priority to three fundamental legal aspects that include data privacy regulations and both intellectual property protections and consumer protection statutes during vendor selection. The failure of vendors to satisfy relevant legal requirements leads to fines along with legal disputes and operational interruptions that diminish their performance level capability (Nyamah et al., 2022).



**Figure 2:** Performance Risk in Vendor Negotiations (Basiru et al., 2025)

## 2.4 Theoretical Framework

### 2.4.1 PESTEL Analysis

Vendor negotiations in Bangladesh's e-commerce industry require the PESTEL framework as a strategic tool for examining external environmental elements which affect performance risks. The focus of the research is to find out what measures the project managers in e-commerce take in mitigating the performance risk when negotiating with vendors. The study employs PESTEL analysis to reveal the complete set

of political, economic and social along with technological environmental and legal factors which shape vendor performance in this quickly expanding sector (Rashid, 2023).

PESTEL analysis is the common assessment tool that organizations use in understanding the external factors that affect the results of business. The PESTEL framework serves as an acronym that includes the elements Political, Economic, Social, Technological, Environmental, and Legal along with their essential parts of the broader company environment. Businesses need to understand these six dimensions to detect possible operational obstacles and strategy-altering threats as well as opportunities which can modify their entire decision-making process. Organizations that perform PESTEL analysis regularly secure proactivity in their response to external changes and market challenges (Yuksel, 2012).

Organizational operations fall under political factors when they encounter government policies alongside political stability together with regulations and laws. Some key components of the business environment transform it by producing trade regulations and establishing taxation policies and securing government stability. The operations of both e-commerce and other sectors depend heavily on political factors because they must adapt to government policies. Businesses face substantial operational challenges because modifications to import/export regulations together with tax policies and trade agreements affect their supply chain operations significantly (Kotler et al. 2015). Locations dealing with political turbulence affect businesses through dismantled supply chains and altered consumer preferences which generate problems for organizations. Long-distance commercial deals in e-commerce industries need strong political influences to develop properly. The capacity of e-commerce companies to develop international business operations gets affected by trade pacts between different nations. Political instability in primary markets requires businesses to maintain strong monitoring practices because such instability creates disruptions in service delivery and diminishes customer trust. Economic factors consist of both the global economic elements and market conditions and consumer behaviour as well as business operations. This group of elements contains inflation rates combined with exchange rates together with economic growth patterns and overall consumer spending. Online businesses need to

pay close attention to economic conditions since they directly affect product demand through both currency value and customer purchasing power (Morrison, 2018). Economic downturns and rising inflation rates force consumers to reduce their expenditures thus leading to diminished sales for e-commerce organizations.

Moreover, the economic growth trends in particular areas may reveal the possible market opportunities. If a area is experiencing tremendous of financial growth, it may have a bigger consumer base with greater disposable income, representing of possibilities for businesses to sell in electronic. On the other hand, economic slumps in some industries may lead companies to revise their pricing structures, maximize their cost-cutting measures or even reduce manufacturing. Thirdly, social factor includes a societal and cultural component that affect how consumers behave, think, and prefer in consuming the product or service. This includes powerful demographic shifts, growing cultural trends, changing lifestyles, and changing customer values. For e-commerce businesses, social trends knowing analyzing is very important for developing products, services, and marketing strategy to fulfill consumer segments demand and wishes (McKinsey, 2020). For instance, the developing need for eco-accommodating items indicates that individuals are turning out to be progressively worried about ecological issues, making online business organizations stroll eco-accommodating alternatives into their offerings. In the same way, changes in consumer behavior, like growing preference for convenience and digital purchases, created the emergence of the e-commerce marketplaces. As behavior of the consumers changes, businesses change also, adapting strategies to trends of social, whether offering of products unique or analysis of experiences of consumers for digital engagement. Technological factors, fourthly, are the technologies to affect the operations of a business and its competitive advantage, Even terms such as automation, artificial intelligence (AI), big data analytics, cloud computing and blockchains are included. To stay head of the competition is the failure of e-commerce business to caught up with the modern technology (Porter, 2001). As one more example, AI powered chatbots can increase customer service by offering instant support; cloud computing gives businesses the opportunity to expand operations quickly and securely with lots of information. Moreover, technological development in

the field of ergonomic is highly necessary for e-commerce companies where they manage the data of the customers. As technology evolves, companies need to continually update to new technology, new process, that can increase efficiency, cost reduction and also provide you with a great user experience. Fifthly, environmental factors refer to the ecological and environmental issues impacting the business operations and consumer's expectation. These factors encompass sustainability practices, environmental regulations, climate change, and the ecological footprint of business operations. Ecommerce firms are under increasing pressure over rising environmental footprint since consumers and regulative agencies get involved in the methods of waste management, packaging and also carbon emissions (Goyal et al, 2019). For example, all of a sudden e-commerce businesses are utilizing sustainable approaches, such as using reusable packaging or offsetting carbon exhausts, because of going environmental anxiety. As environmental laws become more strict businesses in sectors like e-commerce has to be ensure that they adhere to legislation that is relevant and also keep sustainability in their operations. And the lastly legal factors that encompass the regulatory environment in which the business operates that include, labor law, patent, copyright, trademark, data privacy regulation, and consumer protection regulation. Ecommerce businesses, particularly, have many legal difficulites, e.g.,-Navigating privacy law concepts, such as the General Data Protection Regulation, GDPR, in EU or implementing IP law (Sullivan, 2016). With the huge growth of online shopping, businesses – must keep up to date with legal changes which impact their business – for example – new law data handling, online transactions, advertising etc. Such as for sake of ecommerce companies have to maintain vigilant about customer data against cyber attacks keep up with all the data privacy norms. Intellectual property also poses a problem, especially with regard to unlawfully-made products as well as to unauthorised usage of digital content. By keeping up-to-date of legal trends and laws, businesses can cut the legal risks and protect its business.

#### **2.4.2 PESTEL Analysis for Performance Risk Management in Vendor Negotiations**

In the vibrant e-commerce market and world wide supply chain environments, keeping track of effectiveness dangers in undertaking discussion plays a vital part in achieving

success and maintaining long term supplier relations. The PESTEL methodology – it stands for Political, Economic, Social, Technological, Environmental and Legal – is a breach down strategy that analyses the environmental factors that can presume have an effect on project debates. The performance risk management (particularly the supplier negotiation part) is understood as systematic identification, analysis and possible weakening of all risks that can disrupt the realization of a project aims (Boulton and Hemsley, 2019). The use of PESTEL framework consists of enhancing the understanding of how exogenous environmental, political, economic, social, technological, and legal situation elements (PESTEL) would influence the negotiable conditions and results to achieve better situational appreciation and proactive risk management (Kotler et al., 2015). The presented literature review on PESTEL scrutinizes the impacts of the compositions on performance risk administration in project contracts negotiation using ideas of both scientific study as well as business practices.

#### **Political Factors in Vendor Negotiations in the E-commerce Industry and their Impact on Performance Risk:**

Since enterprises have no control over external forces that leads to changes in political aspects, the political aspects have great impact on how enterprises can manage with its vendor relationship and bargain contract, even more so in the e-commerce segment. Uncertainties within Supply Chain in such cases as a Change of Government, Political Unrest, and Changes on the Trade Tariffs. These uncertainties usually result in delays, increased costs and unadjusted timely delivery of goods and services. Businesses need to reassess their vendor strategies when countries face destabilization or when new policy rules emerge to handle such risks. This assessment may include reconsidering pricing models, revising contract terms, or rephrasing payment conditions to allow for unanticipated government policies of taxes or tariff trade (Kruger, 2025).

And even further, the political context is an important element in negotiations especially about market access as well as investment protection, especially to export and much outside market. Political decisions—that is, adjustments to tariffs, tax changes or the introduction of new trade agreements— have a pretty direct impact on how business operates their relationships with their vendors. These political dynamics can either open

or block market for your business; so it has become a requirement for your business to have information about political changes that could stop you to reach vendors effectively. Businesses operating in territories with weak government laws or political instability have to create flexible contract agreements that give them the room to modify and respond quickly to fluctuating political circumstances (Kliem, 2021).

### **Political Factors in Vendor Negotiations in the E-commerce Industry and their Impact on Performance Risk:**

In circumstances where the political environment is unstable and moves quickly in terms of trade policies or tax regulations, flexibility to able to negotiate with vendors is even more significant. Thus, firms have to realise agile options to govern abrasion relationships, beau geste risk faced by price voluptuous happenings and supply cord disruptions (Tarba et al., 2023). Thus, a comprehensive understanding of political risks is necessary for companies to keep stable and efficient supplier negotiations, which can ensure the uninterrupted functioning of the business against the background of the turbulent political situation (Qian & Qiu, 2023).

Some political factors influence performance risk in vendor negotiations, especially when the e-commerce sector is concerned. Political instability which is among happenings like transformation of government or societal unrest brings about great uncertainty in supply chains (Jadallah & Bhatti, 2020). This unpredictability can lead to uncertainty of vendors sought after, it may delegitimize relationship vendors engendering groups of firms to devise strategies to gather from sudden political changes (Kliem, 2021). Trade tariffs, say, are had a significant impact on the cost structure of goods, especially of global supply chains. Changes to tariff policies bring more costs; business needs to demand vendor negotiation, transitions in pricing issue solutions, and adjustment in the way it sources to divert heavy added fee so (Hutagalung, 2025). Equivalent changes in tax environments, for illustration, the institution of new taxes or amendment of present tax confrontations, straight impacts on the operational structure of businesses. These changes will also call for modifications to vendor contracts, changes in price tactics, or review of price structure to stay competitive in an unstable industry (Qi et al., 2023).

In addition, government regulations, as it is with regards to international trade laws, labor, environmental laws, compliance with safety standards, can often impact upon contract terms; shipping logistics and legal compliance (Liang, 2025). They need vendors to navigate with these regulations and that business need to ensure that their contracts comply with the changing legal environment so as to avoid potential legal issues or fines. (Basiru et al., 2025). Furthermore, the decisions of the political sphere on access to markets, like trade tariffs, import / export restrictions or measures of investments; greatly affect the capacity of the businesses to start operations in foreign markets, or maintain their operations in a different part of the globe. For those business who handles international vendor negotiation, this in term of safety investments and market access is hugely depend on political decision within jurisdiction where they work in (Don & Ali, 2024).

In conclusion, businesses must remain cognizant of the political factors influencing vendor negotiations. A strategic approach that accounts for political risks and incorporates flexibility in contract terms can enable businesses to navigate these uncertainties effectively, mitigate potential risks, and preserve robust vendor relationships in the dynamic and often unpredictable e-commerce market (Don & Ali, 2024).

#### **Technological Factors in Vendor Negotiations in the E-commerce Industry and their Impact on Performance Risk:**

The e-commerce market has undergone a significant change from modern technology merged with digital disruptions, and it has greatly changed the landscape between vendors. With cloud computing, big data analytics, and e-commerce platforms today's modern supply chain management comes into existence and changes the business relationship with the vendors. The substantial benefits from technological innovations for operational efficiency and decision-making create new management difficulties and risks that need proper oversight to maintain vendor stability in e-commerce operations (Okwubali et al., 2024).

Multiple benefits emerge from using advanced tech which allows superior operational capabilities and instant data processing capabilities. Cloud platforms provide flexible infrastructure which businesses can operate more resourcefully while allowing easy vendor data exchange (Okwubali et al., 2024). The use of big data analytics by e-commerce companies generates data-based choices that boost vendor outcomes while enhancing supply chain adaptability. Online platforms provide businesses with worldwide market possibilities to make efficient vendor transactions. Technological tools provide businesses with better vendor performance oversight and help companies maintain alignment with client requirements (Christopher & Peck, 2004).

The implementation of technological advances creates several new challenges which affect how vendors perform their tasks. The unreliability in vendor operations and negative effects on business relationships result from primary system downtime concerns. The combination of system failures together with hardware malfunctions or any connectivity problems causes e-commerce disruptions because they create downtime according to Monczka et al. (2015). Technological complexity presents proportional risks of cyber-attacks. The digital foundation of e-commerce businesses makes them exposed to several types of cybersecurity attacks that result in financial damages and damage to brand reputation together with data breaches. The security of digital systems faces growing challenges which create reliability issues that potentially harm vendor operational efficiency.

Fast adaptation to new technical developments stands as the key factor for e-commerce vendors to defend their performance consistency while keeping customers satisfied. Vendors need to develop readiness to implement modern technological solutions because this ensures their market competitiveness and allows them to fulfill growing e-commerce client needs. The vendor ensures the integration of client systems operates without delays while they preserve platform stability to prevent service disruptions. Operational bottlenecks will occur when vendors do not fulfill these expectations which consequently affects both customer satisfaction and business performance (Galende, 2006).

The security of digital systems has become the leading concern for vendor relationships because businesses together with vendors must safeguard their online systems. Organizations lose funds along with reputation loss when they experience both data breaches and cyber-attacks. All parties participating in vendor contracts must receive detailed written guidelines describing their duties to defend against cyber threats as well as their specific responsibilities. Vendor agreements need to specify technical performance norms through uptime assurance clauses along with data protection rules and security protocols which protect from unauthorized entry and cyberattacks (Christopher & Peck, 2004). System performance expectations along with cybersecurity standards must have shared understanding between both parties to create sustainable vendor partnerships.

Having contingency plans becomes essential since they minimize the risks technology breakdowns and security incidents would create. The vendor agreements must have arrangements to manage systems breakdowns along with data breaches and other operational disruptions. Documentation of procedures needs to explain both recovery steps and backup approaches while specifically naming the responsibilities and assignments for each involved party in emergency situations. Establishing contingency plans enables e-commerce businesses to control the effects of technology failures and maintain their supply chain operations without major delays (Okwubali et al., 2024).

Current technology advancement needs businesses to negotiate their vendor agreements actively in order to adequately manage e-commerce performance risks. The vendor agreement should facilitate complete understanding concerning technological functionality together with cybersecurity standards and emergency preparedness and response plans. Businesses can build robust vendor connections through providing vendors with technology adaptation methods alongside risk mitigation practices. The risk management approach strengthens both trust between clients and vendors and boosts their mutual collaboration while minimizing performance failures in the fast-growing digital e-commerce market (Wang et al., 2022).

**Environmental Factors in Vendor Negotiations in the E-commerce Industry and their Impact on Performance Risk:**

In the e-commerce industry in continuous development, environmental factors more and more influence vendor negotiations and service performance risk management. As the number of climate related disruptions increases due to climate change and the regulations get stricter e-commerce companies must adjust their supplier strategies to keep operations up and sustainable. Global e-commerce supply chains from manufacturing to distribution, are vulnerable to environmental events that can greatly affect on the performance of vendor. As a result, incorporating environmental elements into the vendor contract must mainly for businesses striving to cut down the danger & maintain smooth operations in the deal with of outside challenges (Siti Jahroh, 2020).

Climate change has increased the frequency of natural disasters such as floods, wild fires, hurricane and earthquake which have the potential to severely paralysing global supply chain (Christopher, & Peck,2004). E-commerce companies, which recurrently hold the vendors as suppliers of manufacture and shipments, must take into account the risks in order to negotiate the vendors' contracts. Supply chain disruptions can lead to plant(origination) production delays and shipping suspension leading to short of ageing critical products, directly impacting to e-commerce Business performance. The disruption-related financial costs include higher expenses, inventory shortages, and late customer shipment, all of which can damage the company's reputation and customer loyalty (Monczka et al., 2015). To avoid these risks, e-commerce companies have to factor in the robust disaster recovery and contingency arrangements in their vendor contracts. These plans should accommodate environmental disturbances by having a back-up plan and required sources for alternative in case of natural disasters, ensuring adaptability of inventory along with planning on hold delivery to make sure continuous operation.

Besides climate-related risks, environmental laws are affecting more and more the vendor management in the e-commerce. Governments worldwide are implementing restrictions on emissions, waste or green practices which can put a vendor business practices at risk. E-commerce companies must require their vendors to comply with the provision of such regulations to avoid penalties, legal action and bad reputation. Poor adherence to environmental regulations results in potential production slowdowns,

increased operational expenses, and impaired ability of a company to expense to its customers. In the negotiations with the vendors at e-commerce companies must find an answer whether its vendors adhere to sustainable practices, including the use of energy, waste management and the use of eco-friendly materials. This evaluation guarantees that this supplier complies with its environmental goals and regulatory specifications. In addition, companies may require their suppliers to adopt more sustainable practices to include environmental performance indicator in their evaluation of supplies performance (Hart, 1995).

In vendor negotiations inserting environment risk related clauses in contract comes out to be the best strategy for performance risk, managing process. These clauses might provide procedures for coping with environmental interruptions for instance natural disasters or regulatory amendments, and make obvious directions for both parties. For instance, provider contracts could include contingency measures that would occur during an environmental disruption like reporting procedures, backup supply chain structures, and deal with possible financial retribution for a delay or service characteristic failures. Furthermore e-commerce businesses may ask suppliers a Contingency Plans for environmental risks plans for vendors, bringing together cooperation and ensuring preparedness all round. By doing so, companies can really build up a more effective supply chain, enabling it to navigate with challenges, minimizing impact on delight customers or operational business (Siti Jahroh, 2020).

Another significant feature in the trend of vendor negotiations in e-commerce is the notion that consumers are now more eager for sustainability. Today's consumer has become more eco-friendly and will make environmentally conscious purchasing decisions. Therefore, the jobs of e-commerce companies is to back up their actions against eco-friendly to meet consumer expectancy. Collaborating with environmentally, socially, and ethically responsible suppliers can enhance a company's corporate social responsibility (CSR) profile, strengthen consumer faithfulness and trust (Hart, 1995), E-commerce companies that collaborate with suppliers who prioritize sustainability, can also gain from a positive PR, increased brand image and customer relations, which are key to maintaining their long term in the competitive business (McKnight et al, 2002).

The inclusion of environmental elements in vendor talks cannot be taken lightly in the e-commerce business; it is a matter of strategic importance. As climate disturbances, regulatory pressures, and consumer sentiments in the area of sustainability advance as demands in the trade, companies must factor in ecological considerations within their vendor management procedures. By engaging in vendor agreements that contain risk mitigations in the event of environmental event, and choosing sustainable suppliers, e-commerce companies will ensure a supply of goods in the event and increase their resilience. In short, taking this pro-active approach to environmental elements in vendor negotiations not only cuts performance risk, but also clarifies the business's reputation and wins consumer affection which is built to last for the benefit of the business and of all stakeholders.

#### **Social Factors in Vendor Negotiations in the E-commerce Industry and their Impact on Performance Risk:**

The e-commerce industry heavily depends on social elements when vendors negotiate because these factors profoundly affect performance risks. The interaction of vendors with e-commerce entities is influenced by cultural diversity along with communication approaches and the required social practices for relationship development and existing social conventions. Social dynamics that occur in global e-commerce settings require thorough comprehension to prevent both transaction breakdowns and operational slowing down (Schurr & Ozanne, 1985).

Social differences between e-commerce organizations and their vendor relationships enforce a substantial influence on negotiation approaches as well as decision-making systems and partnership standards. Vendors having a preference for enduring business ties may enforce various contractual requirements which differ from vendors who seek immediate returns. Issues resulting from wrong cultural interpretations frequently cause delays along with faulty deliveries and breaches of contract that result in increased performance risks (Hofstede, 2001).

Communication efficiency stands as an essential part of social elements. Proper, open communication must flow consistently between vendors and e-commerce businesses to prevent unclear terms or miscommunicated objectives or various expectations from arising. The influence of trust and reputation perceptions prevailing between parties guides their negotiation dialogue. Trust in e-commerce business requires reliable service along with commitment adherence and ethical business practices because all activities happen primarily online (McKnight et al., 2002).

The reduction of vendor performance risks in e-commerce vendor negotiations becomes more significant when social factors receive attention through cultural understanding and trustworthy communication methods. The construction of reliable relationship networks through exact communication channels enables online retailers to fulfill sustainable business development and prevent operational interruptions.

#### **Legal Factors in Vendor Negotiations in the E-commerce Industry and their Impact on Performance Risk:**

Legal environment bears significant significance in negotiating with vendors; there is this law and order which guides vendor negotiation, especially in e-commerce sector where it is a given, that cross border sale and global supply chain is there. Among the numerous factors affecting the performance risk of e-commerce businesses, legal factors including labor legislation, intellectual property (IP) and international trade laws are of particular significance. Compliance with laws and regulations impacts vendor relations in terms of performance, and efficiency of the entire business. Non-compliance with legal requirements not only imposes a financial risk on enterprises, but can also lead to operational disruption, loss of reputation and loss in the courts, all of which aggravate the performance risk. In this case, e-commerce organisation need to make sure that vendors follow the legal rules to decrease performance risks that could harm their long-term growth (De Jong, (2009).

Compliance with labor standards in e-commerce vendor negotiations is important especially when sourcing products or services from vendors located in other countries. Divergent regional labor laws-such as wage laws, work conditions, and labor practices –

represents a nuisance to a vendor discussion and execution hazard. Adherence to labour laws for vendors reduces operational risks such as legal disputes, fines and PR issues. For instance, if a foreign market's vendor is unable to adhere to any ethical labor standards, the e-commerce commodity could be subjected to opposition by consumers, damaging its reputation, as well as eroding customer trust. To avoid these performance risks, e-commerce companies need to work out contracts with strong contracts clauses that enforce vendors to adhere to labor law and to employ work legally. This is crucial by giving them the opportunity to lower the possibility of disruption that might never be able to adversely have an impact on the model and business consumer experience (Schurr & Ozanne, 1985).

Intellectual property (IP) protection is an important legal issue when entering into e-commerce vendor contracts. In the digital economy, e-commerce businesses typically rely on their resourceful use of proprietary capital technology, product designs and brand identity and branding elements, therefore IP become urgent. Poor handling of IP right can boost performance hazard by way of an unauthorised use or theft associated with the proprietary possessions, thus major performance unfairness along with the legitimate difficulties. The IP rights, (a) confidentiality(secrets) provisions. , (b) non-disclosure internal agreements in the contract vendor(s) are required must. IP laws are jurisdiction-wide and matching vendor contracts with local IP regulations insures legal protection for both parties. By including robust IP protection clauses in contracts e-commerce companies can secure their innovations and the risk of costly legal disputes which could potentially disrupt operations or interfere with performance will be minimised (Schubert, 2020).

The globalization of e-commerce requires conformity to worldwide trade laws, governing trans-border deals, such as tolls, import/export hindrances as well as trade agreements. Additionally, non-compliance to these regulations enables e-commerce businesses to great performance risks, for instance delays, fine and increased bills. For instance, in case a vendor fails to adhere to the international trade regulations, then it can result into bottlenecks in the supply chain thereby causing stock failure or late dispatch. This can result in angry customers loss of sales harm to business reputation.

To mitigate those risks, e-commerce companies require vendor contracts that comply with international trade laws and regulations to avoid potential troubles and open up to a smooth operation. By including trade compliance statements in vendor contracts, companies can indicate the trade performance risks associated with international trade disruptions because of the disruption (McKnight & Chervany, 2001).

The commercial legal hazards in vendor negotiations can totally have an influence on the effectiveness of e-commerce enterprises but can be reduced via exhaustive due diligence and the inclusion of robust legal provisions in agreements. Before making vendor deals, companies should examine vendors' histories of legal compliance intensified by attention to the compliance of vendors due to his labor standards, IP protections and trade regulations. Hiring business law experts for international business law or relying on industry reports can lead to valuable understanding of performance risks associated with certain vendors. In addition, contracts should include mechanisms for monitoring to ensure that continuation of compliance sorts, and continuance penalties for non-compliance to reduce the likelihood of insuring risks performance (McKnight & Chervany, 2001).

Legal factors consisting of labor standards together with intellectual property rights and international trade regulations act as significant elements which increase the performance risks during vendor negotiations in e-commerce transactions. Nonprofit e-commerce companies that incorporate legal considerations properly into vendor agreements and demand regulatory compliance can reduce threats which might interfere with operational delivery and harm business perception. Measures taken ahead of time enable businesses to persevere in the worldwide e-commerce arena where competition remains challenging due to strict regulatory requirements according to Schurr and Ozanne (1985).

## **2.5 Summary of Literature Review**

The importance of efficient risk management in peer-to-peer negotiations is extremely essential for e-commerce industry as numerous factors endanger project results. This literature review covers the other types of risk, specifically contractual, financial,

communication and performance, regulatory risk on vendor's negotiation and project success. Project managers are a key player in spotting, analyzing and controlling the majorities of these risks so as to maintain project's target.

Firstly, contractual Risks are the result of unclear or poorly worded terms in vendor contracts. These risks can result in problems, financial losses and poor deliverable if not managed effectively. The e-commerce landscape is changing rapidly, as it is now dependent on third-party logistics contracts, which is creating uncertainty in the delivery chain and increasing the risk of customer dissatisfaction. Clear contractual terms as defined by KPIs, penalty clauses, and contingency plans would reduce risk of such risks (Chingombe, 2023). Financial Risks represent the risks arising from uncertainty relating to costs, payment arrangements and everything necessary for the funding of a project that this could affect a project's budget and the financial. In the e-commerce space, currency exchange rates that may fluctuate or price increases that are unexpected can have a bearing on profit margins. To mitigate these risk , it is important that there are clear financial terms and provisions for contingency reserves (Hillson & Simon, 2020). Additionally, communication risks and hazards to social partners can occur when stakeholder coordination is unclear or inconsistent. For discussions in e-commerce is an issue of logistics providers, which disagreement may arise in the discussion with leadership and suppliers, of the vendor for the vendor as a result of communication issues. To deal with these risks, developing communication and stakeholder engagement is necessary (Turner, 2009). In particular, Performance Risks concern a vendor's capacity to comply with the agreed benchmarks, deadlines, and quality levels. These risks can arise because of vendor capacity ceilings, resource alone, or technology crashes (Bailey & Friedlaender, 2020). In the e-commerce segment, Performance risks can also be physical delivery delays or poor service delivery. Assessments of vendors and inclusion of performance criteria in contracts are necessary for the performance risk reduction (Hillson & Simon, 2020; Bai & Sarkis, 2014). Finally, regulatory and External Risks are related to the legislative change, economic upheaval, or those unconceivable events such as natural calamity (Hillson & Simon, 2012). In e-commerce, regulatory changes like import/export tariff rate can create supply chain problems, for instance

they can make vendors have issues working. Managing these risks requires the investigation in advance of relevant legislation and incorporation of compliance provisions in contracts (Turner 2009).

Further, the contribution of risk management strategies in e-commerce project, as well as vendor negotiations across internal and external negotiations considered. When referring to external negotiations, these are the vendors and also the third-party service providers that are taking place. To lead to success, a project manager has to be able to manage multi goals and risk effectively. Strategies of risk management as clearly communicateing, setting accurate expectations among stakeholders have been proven to be incredibly valuable in improving the resilience of the project (Rehman & Anwar, 2019).

The literature also emphasizes that managing the performance risk in the vendor negotiations is essential. Causes ranging from supply chain disruptions to integration technology and vendor ability to put these risks in jeopardy. To mitigate performance risks, e-commerce companies can vet the vendors by having fine details in the contract that outlines the performance, track the performance of the vendors in terms of Key Performance Indicators (KPIs) (Ganesan, 2022). Additionally, the PESTEL method, which includes a broad approach to analyze the exterior elements in including political misconduct, financial circumstances, and technical pushes that may impact the vendor performance (Yuksel, 2012).

In the context of vendor negotiations, **political considerations** like government policies, trade rules, political unrest all can contribute quite substantially to the supply chain & vendor performance (Kruger, 2025). The **economic factors**, like the inflation, the exchange rates and the movements of the economy, can cause an impact in the demand and the supply dynamics that affect the project costs (Morrison, 2018). **Social factors**, changing consumer preferences and lifestyle, consumer trends also decide vendor performance expectation (Siti Jahroh, 2020). The other **technological factors** like the integration of the art of artificial intelligence, big data, cybersecurity are significant to keep established a solid vendor relationships (Christopher & Peck, 2004). **Environmental factors** have become significant, because of climate change and sustainability practices

of vendors (Monczka et al., 2015). Inserted into **legal conditions**, labor standards, protection of intellectual property and regulations of trade, are needing prominence to pursue compliance and to preserve risks in vendor negotiation (Schurr & Ozanne, 1985).

Simply saying, the research discusses importance of risky management tactics in vendor negotiations especially in e-commerce. Successful vendor selection, transparent contractual clauses, and performance evaluation along with the use of the PESTEL model is a baseline for risk management. By dealing with internal and external factors, managers of projects can cope with uncertainties and guarantee project outcomes.

### **3 Research Methodology**

#### **3.1 Philosophical Foundation of the Research Methodology**

The philosophical basis of research methodology sits behind the conceptual structure and ideals which control research, which impacts on how knowledge is built, read and comprehended. The main philosophical positions of research are positivism and interpretivism, each of that has its own way of how to understand the reality and construct of knowledge. Positivism, based in the tradition of natural science, emphasizes the objective and observable phenomena and it is mostly tied to the quantitative method that aims at measuring and analyzing variables in an orderly and empirical way (Creswell, 2014). Positivist researchers argue social phenomena can be studied as the natural world, with the aid of objective data, and statistical tools in order to seek universal laws. This approach stress upon the significance regarding objectivity, generalisation and replicability (Bryman, 2016).

On the other hand, interpretivism emphasizes the subject nature of human experience, concerning the meanings of which people or the groups attribute to their actions, behaviors, and social situations. Interpretivits belief that social reality is socially constructed, and so can only be understood through the views and interpretations of participant involved (Schwandt, 2014). Unlike positivism, which wishes to find universal laws, interpretivism wishes to take a deeper, much more particular in addition to richer have an understanding of phenomena where undertaking significantly deeper in to the... Therefore, qualitative analysis methods, like interviews, case studies, and ethnography are often used according to the interpretivist framework in order to be able to discover participants' experiences and beliefs in detailed environment (Patton, 2015).

For this current research, an interpretivist research philosophy is used. Especially this approach is well suited for the examination of the subjective experiences, perceptions and decision-making behaviour of the project managers within Bangladeshs E-Commerce industry, whether it comes to vendor negotiation as well as the management of performance risks. The interpretivist approach then provides a possibility for an examination of how broader macro-environmental factors like political, economic,

social, technological, environmental and legal (PESTEL) features influence the behaviors, practices and strategies that project managers adopt in order to tackle vendor relationships. This philosophical stance is consistent with the major purpose of the study: to acquire a deep and rich comprehension on how external environmental condition impact vendor negotiations within this dynamic and complicated industry.

Through being an interpretivist, the research is able to an in-depth, context sensitive analysis of the variety of tactics that project managers employ to thwart performance risks, affords rich, contextual insights into the cumbersome realities and challenges inside the ever changing e-commerce arena of Bangladesh. This approach is congruent with the overall goals of qualitative research, which is to understand the human experience through the prism of lived experiences, and priorities are placed in the significance of situation, meaning, and interpretation in creating understanding of social phenomenon enactment (Denzin & Lincoln, 2011).

### **3.2 Inductive Research Approach in Qualitative Strategy**

The inductive approach is a basic methodology of qualitative research, comprising derivation of universal knowledge and theories from particular data. This method is different from the deductive reasoning one where a hypothesis or theory is proposed and tested by the empirical evidence (Creswell & Poth, 2018). On the other hand, inductive reasoning takes a bottom - up positions - it views the scale - the energy of concepts or votes out of knowledge accumulating with the nature manipulating the construction of the statement status ahead rather - placing a pre-fashioned structure over the knowledge - information data. This approach is especially nicely positioned to research an elaborate and dependency-pendent phenomenon, and the researcher wants to investigate the points and niceties of human activity, social activities or corporate procedure (Thomas, 2006).

Qualitative research inductive method used to identify, to understand and to discover new themes and relationships at the data without prior theoretical assumptions. This method is particularly suitable when the goal is to produce new theories or viewpoints rather than verify or confirm existing ones (Braun & Clarke, 2013). In proving the data

to speak for itself, the inductive method enables a much greater closer exploration of the research problem, providing new knowledge about the lived knowledge and views of participants.

In this study, an inductive methodology is employed to explore how the key project managers in Bangladesh's e-commerce industry handle vendor-associated risks throughout negotiations. The study first gathers empirical data with semi-structured interviews with project managers; it has their direct accounts and first hand what it is like to manage vendor relationships. These interviews are the main source of data, and give that in-depth, detailed insight into the tactics that project managers use to address performance risks in vendor negotiations.

The analysis of the interview data is an inductive process where the researcher looks for recurring themes, patterns and ways of thinking from the responses. Data is encoded and structured into categories, which represent the main points of vendor negotiations, as mentioned, such as risk identification, measures to mitigate that risk, and the impact of external factors, of political, economic, social, technological, environmental and legal (Pestle). The findings of these patterns which directly come out of the data will be referring the theoretical framework to be built in order to explain the dynamics of vendor negotiations and risk management in Bangladesh e-commerce. This process enables generation of a conceptual model that is grounded in the lived experiences of project managers; it provides new understanding of the strategies and practices that make up successful risk mitigation.

Therefore, the inductive method accounts for making the theory directly from the data, thus it is a very useful technique to understand the complexities of vendor negotiation and risk management in middle of e-commerce scenario of Bangladesh. This approach is consistent with the overall goal of qualitative research, to produce contextually rich and theory-sided outlets of social phenomena (Charmaz, 2014).

### **3.3 Developing the Questionnaire**

Developing of an interview questionnaire is important in qualitative research in getting rich and context-specific information from participants (Artino et al., 2014). This present

study aimed to examine on how project managers in e-commerce industry in Bangladesh minimize performance risks in vendor negotiation. I semi-structured interview approach was used because it tends to be useful for providing flexibility and the opportunity for follow up probing of emergent data theme while also maintaining consistency across interviews as (Creswell & Poth, 2018).

The PESTEL framework—circumscribing Politics (Political), Economy (Economic), Society (Social), Technology (Technological), Environment (Environmental) and Law (Legal) upto forces—was relied on as instructional structure to develop the data gathering instrument. Each factor was developed into open-ended interview questions aimed to uncover external environmental elements affecting upon vendor negotiations and performance. For example, questions about political factors considered the impact of regulatory changes and political stability on vendor relationships. The economic issues looked into issues tied to economic downturns or currency fluctuations, while social factors dealt with the growing requirement for ethical conduct and sustainability by consumers. Under technological factors, the emphasis was put on integration of digital tools and cybersecurity in the management of vendor relationships. Next questions about environmental factors looked at external distractions such as natural disasters effect on performance.

PESTEL Factor	PESTEL Insight	Interview Question
<b>Political Factors</b>	Political changes (e.g., government policies, trade tariffs) can affect vendor relationships and disrupt supply chains.	1. Political modifications within the government framework influence how you manage vendor relationships and negotiation terms during e-commerce operations?
	Political instability can lead to fluctuations in costs and delivery delays.	2. What strategies would you employ to mitigate the risks in your supply chain that is going to be at risk of political instability and changes in trade tariff?
<b>Economic Factors</b>	Economic conditions like inflation, exchange rate volatility, and recessions affect vendor negotiations and supply chain stability.	3. What strategies do you implement to maintain supplier performance regarding cost-effective products that meet quality standards and are delivered punctually during economic downturns and periods of inflation?

	Currency fluctuations can lead to price volatility in international vendor agreements.	4. What methods do you employ to deal with a currency exchange rate movement volatility at vendor negotiation?
	Economic volatility can produce uncertainty in contract terms and pricing.	5. What effects do foreign exchange rates produce when negotiating with vendors?
<b>Social Factors</b>	Social pressures related to ethics and consumer expectations for corporate social responsibility (CSR) affect vendor practices.	6. What steps can supplier firms take to maintain operational excellence as consumer scrutiny of social responsibility and ethics grows?
<b>Technological Factors</b>	Technological advancements such as AI, automation, and cloud computing improve vendor relationship management but pose risks like cybersecurity threats.	7. What function of incorporation technology do you use in maintaining strong vendor relationships?
	System downtime and cyber-attacks can disrupt e-commerce operations and affect vendor performance.	8. What impact do technological disruptions, cyber-attacks, and system downtime have on vendor performance, in your opinion?
	Technological risks like cybersecurity threats can affect both business and vendor performance.	9. What steps have you taken in your company to protect it from such IT perils?
<b>Environmental Factors</b>	Environmental disruptions (e.g., natural disasters, pandemics) can significantly impact supply chains.	10. Can you share an illustration of a time that environmental disturbances occurred and what specific endeavours you executed to aid vendors to keep up operational levels amid these events?
<b>Legal Factors</b>	Legal compliance regarding labor standards, intellectual property, and international trade regulations is crucial for managing performance risk in vendor negotiations.	11. What is being done from your side to see that your vendor agreements conform to the labour laws, intellectual rights and international trade regulations?

**Table 1:** Theoretical Framework and Questionnaire

The design of the interrogative encompasses the numerous external factors associated with vendor negotiations and delivers recommendations as to the strategies project managers may apply to address the associated risks. This questionnaire will allow

gaining insight into real, in-depth, practical experiences and strategies related to study's key focus.

### **3.4 Empirical Data Collection Methodology**

Empirical data collection consists of gathering data through direct observation and experience along with or through real environments personal interaction. This approach is central to qualitative research where the goal is to arrive and gain of participants' understanding and collect rich information about multiple, complex phenomenon (Silverman, 2016). Qualitative studies data are frequently derived from interviews and focus groups because qualitative techniques are apt to generate abundant, detailed and individualistic narratives and views (Kvale, 2007).

For this research semi-structured interviews have been used mainly to collect data. Semi-structured interviews offer a middle ground between standardisation and flexibility allowing the researchers to have some predetermined issues to look at as well as to accommodate the flow of the survey (Cohen & Crabtree, 2006). This approach allows for a deeper understanding of the research participants' attitudes in regard to vendor negotiation and the risk management within e-commerce in Bangladesh, the participant belief that maintains consistency across the interviews for comparison (Bryman, 2016).

Interview were conducted with five respondents which is belongs to rank project manager of chosen E-commerce company in Bangladeshi market. Interviews were taken of two groups, the ones chosen were people responsible for two aspects, one for their direct role of managing their vendor relationships and the other for their looking at the performance risks within their own organization. The semi-structured interviews allowed the participants to give more detailed answer to unstructured questions and therefore provide the researcher insight into those strategies used by project managers to manage to the performance risks related to the vendor negotiations.

Besides, secondary data such as vendor agreement, contract reports and internal documentations of selected e-commerce company was also analyzed to support the primary data. This supporting secondary data added additional context to the interviews,

which helped validate the data collected and gave completeness regarding the facets affecting vendors negotiations and risk management. Upon triangulating the first-hand data obtained from interviews with secondary sources, the study increases reliability and depth of analysis (Merriam & Tisdell, 2016).

This mixed method approach, using qualitative interviews with secondary document analysis is also in-line with the research aim of inquiring into the real-world strategies and frameworks adopted by project managers operating in Bangladesh's e-commerce industry to manage performance risk through negotiations with vendors. Through this empirical data collection efforts, the study looks to provide actionable knowledge on how non-interested parties, like political, economic and technological conditions, affect vendor relations as well as project outcomes in this highly chaotic industry.

### **3.5 Case Study Research Design**

The case study research design is a research strategy, this kind of research, particularly is a very extensive and close up examination of a particular phenomenon in its natural context. Especially when the researcher is trying to elaborate a multiplicity of phenomena that cannot be taken out of its natural ambience (Yin, 2017), this approach is of great help. It allows us to consider an occurrence through knowledge from different viewpoints, therefore making case studies possible for us to see the implicit dynamics of the situation, the concurrency.

This study considers e-commerce in Bangladesh and vendor negotiation processes of that e-commerce industry; and therefore, the choice of case study design is made to study it. This case study is a nice method of investigating the specific issues of a project manager inside of e-commerce type project of Bangladesh, who is talking towards vendor & how external conditions, among political, economic & social condition, influence vendor effectiveness and affect project result. Political, economic, environmental, and social factors (also known as political economy) that have the ability to effect the process of negotiation of this project and of management of attendant risk by the project managers (Creswell, 2014).

It is an exploration of the phenomenon in its natural setting in which the case study approach is taken to ensure a holistic approach. This methodology is particularly suitable when tackling intricacies, context-specific concerns, where there is a definitional vagueness surrounding the phenomenon and the context (Stake, 1995). This study examines the e-commerce sector in Bangladesh, a special and dynamic environment in which disparate external influences—variations in political management, economic instability, changes in societal expectations—combine with internal project management techniques, so as to influence vendor relationships and result in vendor performance outcomes.

The case study methodology allows for a greater analysis of the techniques and techniques applied by the project managers to reduce opportunity and augment the execution performance of the contractor. It enables the researcher to comprehend which particular practices, such as contract negotiation techniques, vendor selection processes and risk management methods are utilised in real-world projects to process uncertainties and achieve project objectives. Also, case study design produces rich qualitative data that can be used for developing the insights into complex inter relations of different factors that separate negotiation with vendor, providing detailed, contextualized understanding of researched phenomenon (Flyvbjerg, 2011).

In conclusion, current state research design allows for an in-depth evaluation of the vendor negotiation practices in Bangladesh e-commerce industry, provides a useful discussion of how external environmental factors influence, project outcome. This design enables the analysis of the particular challenges and strategies that are required in the project managers but it is also enhancing in the overall understanding of risk management and negotiation practices in the e-commerce sector.

### **3.6 Empirical Data Analysis: Thematic Analysis Approach**

Thematic analysis is a popular qualitative data analysis technique that enables researchers to derive and define - patterns or themes in a data set. This approach offers flexibility and add depth, makes it a suitable means of accessing of complex phenomena and the variables that define them. Thematic analysis is of especial value where we are

researching perceptions, behaviors and experiences in particular settings because it identifies and maps patterns of meaning across large datasets, transcripts of interviews, for example (Braun & Clarke, 2006; Buye, 2021).

Thematic analysis is applied in this study to analyze the data resulting from these project managers in Bangladesh's e-commerce sector. The PESTEL model (Political, Economic, Social, Technological, Environmental and Legal) provides the framework for extracting main themes from the data. Thematic analysis is a systematic coding, categorizing of these codes and formation of overarching themes within which major issues and strategies can be seen in relation to vendor negotiations and risk management (Braun & Clarke, 2006).

The process starts by researcher closely read the interview transcripts in order to familiarize themselves of the content. Next, the data is cautiously coded by determining important passages related to the research questions. After the initial coding is done, the codes are then clustered into higher-level categories which are in line with the six PESTEL inputs. This enables a disciplined methodology of determining how external macro-environmental factors impact vendor negotiations and performance risk management.

For example, the Political Factors theme might concentrate on the impact the government regulations and policies, like trade tariffs, or a shift in import-export policies affect vendor negotiations. Economic Factors might illustrate the tactics adopted by project managers in dealing with challenges posed by economic situations, that is, inflation, currency devaluation, or disrupted supply chains. Likewise, Technological Factors may be concerned with how project managers extend vendor relationships and minimize performance risk with the use of digital tools and IT infrastructure.

From identifying these themes and exploring their interconnections, the theme analysis provides with precious clues on how project managers set about to avoid performance risks in the negotiations with the suppliers. An example of an application is the Economic Factors theme, here the study investigate how project managers deal with risk related to currency exchange rate volatility. In the course of dealing with such uncertainties, the

project managers often include flexible exchange rate provisions in the contracts, which helps minimize the possibility of excessive costs resulting from unforeseen changes in value of currencies. This shows that specific strategies have linkages to broader economic variables, manifesting how analysis includes strategies usual to mitigate risks within the context of insecurity within the economic realm (Braun & Clarke, 2006).

### **3.7 Research Validity and Reliability**

Validity and reliability are two essential notions in any intestation research, especially in qualitative research, where the subjectivity of data collection can threaten the reliability and consistency of the conclusions. Validity has to do with the degree to which a study models or captures the concept being studied. Consistency, however, is about the reliability of the research results over time and under the same situation. In qualitative research, validation and reliability are conducive to obtaining a verifiable information from the participants which can increase the credibility and trustworthiness of results (Golafshani, 2003).

To guarantee the reliability of the study, the researcher incorporated change strategies as for example triangulation, a technique where it uses different data sources or ways the changes to test the findings and decrease bias. In this study, primary data collected from project managers, were buttressed by secondary data; Vendor Agreement and Project Reports. This mixed approach enables the corroboration of findings between different sources of data, that presumably, provides more comprehensive and precise understanding of the phenomenon (Merriam & Tisdell, 2016).

Moreover the researcher conducted member checks whereby initial findings were reported back to participants to establish that the understanding of their responses was representative of their perceptions. This method enhances the validity by soliciting off participants' comments to validate the accuracy of the researcher's interpretation.

For reliability, the study preserved consistency by adopting a semi-structured interview format, giving a structured format that allowed sufficient flexibility across all interviews. This structure ensured consistency in data collection to make comparison and analysis of respondents easier. Additionally, the data obtained was transcribed, systematically

analyzed, so there were the same procedures for the entire data, in order to increase the reliability of the results (Sekaran & Bougie, 1993).

In the instances of validity triangulation is illustrated by the incorporation of secondary data and interview data (the vendor agreement for example). The presence of the organizational documents, such as the project reports, in which the risk management strategies from the interviews were found to be consistent served to support the findings of the interviews. Respondent 2 also noted "We deduce our contractual terms along the national strategies and the vendor agreements illustrate on how we track and enforce on performance metrics in line with what was said at the interview."

For dependability, the semi-structured interviews with standardised question layouts throughout the respondents were necessary. This facilitated that each participant responds to the same themes being able to create a homogenous data. Additionally audio-recording and transcribing the interviews resulted in no loss of valuable details, thereby justifying the reliability and accuracy of the data during analysis by cross-verifying responses within the study.

By using such methods, the study has ensured strong validity and reliability as such results are positive, plus believable and consistent and are valid and can be worked out in other similar context.

### **3.8 Ethical Considerations in Research**

According to Hoonard and Hoonard (2018), the way sample selection is done in the field of contemporary e-commerce research and the way interviews are conducted focusing on performance risks in vendor negotiations and contractual agreement as being within Bangladesh e-commerce sector, the researcher has to adhere to tenets of established ethics in order to protect the rights and welfare of all participants. This study focuses on the informed consent process which is important in enabling the giving of informed consent in that participants have the right to decide whether to take part because they comprehend the aims of the study, how it will be carried out, the possible benefits and risks and what is happening to the data (Beauchamp & Childress, 2019). If

participants were adequately informed about the research, they were enabled to make their own decisions, either by consenting to or declining to take part in the research.

Moreover, confidentiality and privacy were respected all throughout the research process. The identities of participants were anonymised; participant numbers and the safekeeping of interviewer data allowed protection of anonymity without compromising the safety of participant data. This study also conformed to the ethical standards of research that aim to prevent injury during the interview event. Participants were informed of their right to refuse answering questions they felt embarrassing ensuring that they were recognized as having the autonomy and dignity (Silverman, 2017). Particular care was taken to ensure participants' rights were respected, their worth was appreciated and the research was conducted with empathy and empathy.

Additionally, the study was evaluated by the appropriate institutional review board (IRB) and conformed to the guidelines of the Association for the Advancement of Medical Instrumentation and to the legal requirements. This implies a recognition of ethical research standards, specially so in endeavouring to research in Bangladesh. In the end, the study intended to enhance the knowledge on reducing performance risks in vendor negotiations and contract providing in Bangladesh's e-commerce sector, as well as offer information on e-commerce strategy from a project manager's perspective.

## 4 Case Study Analysis and Results

This research paper illustrates the PESTEL (Political, Economic, Social, Technological, Environmental and Legal) impact analysis experiences through performance risk management by vendors in negotiations based on feedback by five respondents. The data comprises various tactics and mechanisms employed by companies to mitigate performance risk in vendor partnerships, and performance risks specifically in the e-commerce sector.

### Political Factors

Political factors, as government regulations and political instability, were often what demanded pressure on vendor negotiations. Respondent 1 gave an illustration of how they responded to a political rally in a provider country which induced a transportation strike. Tier III was able to decrease delivery disruptions by using a third-party freight delivery service and carrying more inventory stock in local locations. "The shipment timetables came into variation on top of temporary bulks in native shop holdings to watch for shipment interruptions," said Respondent 1.

### Economic Factors

Economic downturns, inflation and currency exchange rate volatility were determined to be significant challenges for maintaining vendor performance. Respondent 3 noted that there were periods when there were technological disruptions and cyber-attack which rendered operations late. They observed, "Techno disruption and cyber attack come with negative impact for vendor performance, vendors miss timeline when failures in systems occur." Respondent 2 stressed as well the critical aspect of secure cloud infrastructure and data encryption in order to safe guard against IT downtime during those sour times.

### Social Factors

Vendor negotiations and corporate social responsibility and ethics were hot topics, particularly with consumers watching and ethical sourcing in mind. Respondent 5 noted, "Our organization employs cloud-based vendor tools for performance tracking

automaton in order that order administration and compliance checking are clue in extra bipotamous.” This approach not only improved operational efficiency, but also by making transparent and jointly accountable vendors has helped build trust in them.

Respondent 4 demonstrated this point in further detail by explaining how they connected API integrations to guarantee synchronization between e-commerce platforms and suppliers to prevent the risk of data mismatch and order discrepancies. This system allowed for real-time updates and has a backup during downtime, and ultimately preserving vendor performance with unforeseen disruptions.

### **Technological Factors**

The part technology plays in being able to mitigate performance risks was something of a recurring theme. Both Cyber Security and IT Infrastructure Resilience were mentioned over and over again as key factors for operations to continue to function when they were disrupted. Vendor & Tech Resilience was also discussed by Respondent 3 as well as the need for strong cybersecurity practices. “Vendors without good digital infrastructure unable.” They said. “For this reason I also assess a vendor's cybersecurity rating, backup solutions and ability to recover from disruption before agreeing a long contract.

Respondent 2 took a proactive approach to IT risk management, noting that, “We've put a safe cloud solution in place that lets us have flexibility so we can do full system backup in a short period of time of recovery.” They stated disaster recovery systems and geo-redundant data storage are key to DDoS threat mitigation and unwanted system outages.

### **Environmental Factors**

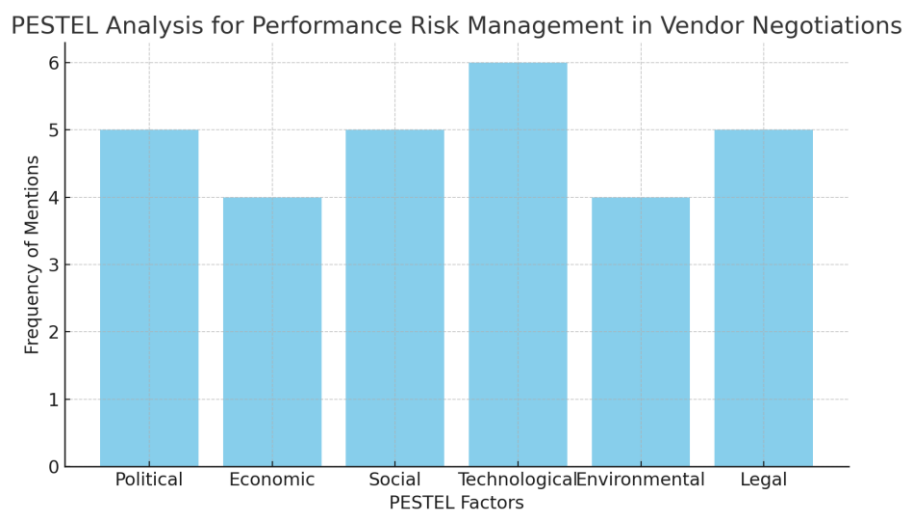
Environmental disturbances such as natural disasters and climate-related events were constantly an issue. Respondent 1 gave a step-by-step description of how their company handled supply chain disruptions triggered by a forest fire near one of their top suppliers. We predicated outcomes of a strategy to mitigate risks so we could have given hands to the damaged merchant, they explained. This proactive way meant their supply chain stayed strong, with backup suppliers being used to prevent shortages.

Likewise, Respondent 4 described how they used automated data reconciliation tools to mitigate the issues caused by environmental disruptions. "We run system tests all the time so as to pick up on synchronization problems early on so we can react quickly when an environmental issue occurs" they said.

### Legal Factors

Legal compliance, especially regarding intellectual property (IP) and trade rules internationally were important aspects of vendor negotiations. Respondent 5 pointed to the use of cloud-based contract management systems at the organization to guarantee legal compliance with vendor contracts. "We can confirm that we suit up our providers to ensure they meet legal and regulatory specifications ("compliance appraisal") which emits: contract lifecycle management, compliance monitoring and checking," she / he said. This approach did more than just shield the organization from legal woes; it also fostered trust, charity-like relations with vendors.

Respondent 2 basically supported this by stating, that the business he worked for focused on data security compliance. We have associated advisory contracts with our vendors to implement, meet, our IT security requirements which decrease exposure and performance risk for the embodiments that use the external system.



**Figure 3:** Performance Risk Management in Vendor Negotiations (PESTEL Factors)

The bar chart shows the frequency of references to each PESTEL factor (Political, Economic, Social, Technological, Environmental, Legal) that is relevant for the

performance risk management process in vendor negotiations, as described in the case study.

Political factor was one of the most frequent, as political stability, government, and external political event like protests or strike are significant in vendor negotiations. Respondents adjusted to political difficulties, like arranging for alternative delivery operation when disruptions occurred. Economic Factor down slightly from political factors, but economic factors still made appearances, economic downturn, inflation and a weak currency causing most of the pain. Concerns including technological failure and cyber attacks in volatile economic circumstances were raised by the respondents. Social issues were also cited often, highlighting that ethical sourcing, consumer assertions, and the visibility of the vendor's operations in the age of e-commerce are altogether significant matters. Social responsibility and the common vendor responsibility through the use of automated solutions were key to managing the performance risks. Surpassing the others, the 'technology factor' has the highest frequency, illustrative of the importance of cyber security, resilience of IT infrastructure and disaster recovery in terms of risk management for performance. Vendors' digital platform and the capacity to have recovery from cyber Netherlands area was essential in controlling systematic code in tensions for change. Topics such as environment – risks related to natural hazards – were dealt with but mentioned less often than some other items. Respondents used predictive systems and automated tools when dealing the time disruptions resulting from an environmental event to make resilient their supply chain. Legal compliance, especially so in the context of intellectual property and trade laws, became a major worry, as it was a bit less prominent than the technological matters. Tools for compliance, contractual restrictions were cited as methods for addressing legal legal hazards. In total, Technological Factors received the most attention reflecting the significance to managing the smooth running of operations and the recovery of disruptions in vendor associations, while Legal and Economic Factors were also very important, though slightly fewer in comparison.

## 5 Research Summary and Implications

### 5.1 Summary of Research

The growth of the e-commerce industry in Bangladesh has witnessed the unbelievable rise, supported by the progress in technology & consumer behavior. With over 120 million internet users and by the time 2020 universal mobile financial services the digital transformation business opportunities have been rapidly escalating in the urban and rural areas. With this supersonic growth, however, comes a number of distinct challenges on the side of e-retailing companies – especially when it comes to negotiating with vendors and controlling the performance pitfalls that come with them. These risks, varied from supply chain disruptions to financial instability, are also due to Bangladesh's changing regulatory environment and certain infrastructure. Therefore, this research aims to explore how Project Managers (PMs) of E-commerce, in Bangladesh can prevent performance risks in negotiations with the suppliers, to formulate practical frameworks and strategies.

The respondents' input were revealing about how various macro-environmental factors described by the PESTEL framework (Political, Economic, Social, Technological, Environmental, Legal) impact broadband performance and the tactic techniques with which project managers reduce these risks.

First, political factors such as government and laws of international trade and political factors were found to be key determinants in vendor propositions. Respondent 1 reported on dealing with a transportation strike caused by a political protest in supplier country by switching to alternative freight services and local inventory captive. This case shows the value of flexibility in contracts, the possession of backup suppliers and an emergency plan are vital. Political volatilities require that vendor contract be able to adjust to abrupt change of government regulations, tariff competitive and political instability. Furthermore, vendors underlined specific cultural challenges as major performance challenges during vendor negotiations related to performance threats including economic elements such as economic downturn, inflation and currency fluctuations. In particular, Respondent 3 observed that the periods of economic vagary

intensified tech disruption and cyber-attacks and delayed delivery from vendors. Also, currency exchange rate fluctuations lead to the increase in unseen expenses in that intensive agreements. To mitigate these risks, Respondent 2 indicates the necessity of implementing strong IT based systems that bare secure cloud computing system so there is no impairment to the management of data as well as financial turnover when there are major disturbances. So, economic risk requires at the same time financial foresight and technology-enabled agility throughout vendor management. Besides Social Factors such Social responsibility and transparency in vendor management has now become key to managing performance risks. Respondent 5 mentions the value of self-monitoring tools for achieving ethical sourcing and social requirements compliance. As consumers becomes more subjective towards corporate social responsibility (CSR), e-commerce companies must be given assurance that its vendors practice ethical sourcing, labor condition and environmental sustainability. Transparency achieved by means of instruments such as cloud-based systems and automated vendor assessments are essential in order to establish trust and mitigate the risks triggered by social and ethical issues. Same with Factors of Technology, Technological advancements, mainly in Had cybersecurity as well as IT infrastructure, were stressed as major elements in Loss of performance risks. Respondents identified the need to assess the digital infrastructure of the vendors, with Respondent 3 stating that cybersecurity maturity, system recovery ability are the key things prior to entering contract with kind of vendor. Given that e-commerce is heavily reliant on digital platforms, a hardware vendor's technical failure risks causing fails across the whole supply chain, through to performance and satisfaction. Key proactive IT risk management strategies like investing in secure clouds, developing disaster recovery strategies, were offered as examples to help shield a company against the impact of major disruptions. Additionally, environmental Factors such as environmental disruption events like natural disasters or climate related events (including occasional unavailability of electricity and staffing challenges for the vendor staff) can significantly impair the carrying out of vendors, most especially those in supply chain logistics. Respondent 1 explained how predictive systems assisted their company in predicting and controlling for the disruptions caused when a wildfire was proximate

to a supplier. By setting up backup suppliers and changing stock strategies, they coped with delays. This result underscores the importance for businesses to have vendor negotiation incorporate environmental risk assessments, ascertain that contingency measures are in location to address such disruptions. In addition, as environmental worries continue to rise, significance for vendors' sustainability practices has increased in vendor procurement, for that reason the need to measure out the environmental risks a business faces. Legal issues for example compliance with regulations on the data security, labor standards, intellectual property rights was also sticking out as significant factor of negotiation of vendors. Respondent 5 described finding cloud-based contract management tools to ensure legal compliance, eg, regarding IT security standards and trade regulations internationally. This strategy reduces legal protection by having additional contracts comply with existing regulations, so there is less likelihood of needing costly legal lawsuits. Intellectual property protection is also on the list, especially when the vendors handle private data or technology.

The value of the practice of carefully handling the performance risks during the vendor negotiations with the vendors to survive in the business, which depends on the e-commerce. There are multiple business mechanisms to reduce hazards and a favorable business process. The first of the crucial strategies that must be engaged in by organization to perform complete vendor assessment is bifurcated vendor evaluation. The firm should start evaluating the potential suppliers with measures such as their financial stability, operational ability and technical reliability to determine its contract. Since these two qualities clearly impact the vendor operational performance, one organization should focus on evaluating vendor operational performance along with vendor cybersecurity maturity. Thorough vendor assessment by businesses means it makes sure that its suppliers have the capacities to meet demands related to the changes in the market.

The main strategy to reduce performance risks is by clear contractual provisions. Wherever the world is, the agreement should be reached in detail at the global level and should have key performance indicators (KPIs), performance penalty clauses in case of the performance, scope changes and delays etc. Having vendor performance contracts

will allow organizations to protect their business by establishing guidance systems and eliminate pitfalls in accountability. At this point implementation of technology based risk management system becomes necessary. Digital monitoring tools, along with cloud based security systems for a greater workability can largely be implemented. These systems provide real time reports to the company that allows it to track performance of the vendor at all times and solve its basic problems before they become other problems. These tools play their most effective role in modern vendor management to minimize technical and financial risk, which add up to a metric they need in order to avoid the risk of technical, as well as financial.

A second way to also be successful is to develop the vendor partnership intimately. A working culture of cooperation and transparency comes forth through building strong long term relationship with the reliable suppliers. Open communication, managing realistic expectations and the desire to deal with issues jointly greatly reduces the likelihood of performance issues happening. For instance, leveraging API integrations for real-time information synchronization between suppliers and business organizations can proficiently oversee operational difficulties. It is indicative of the strength of partnerships in making better operational performance and with it reducing the vendors related risk of disruption. Besides, there is the issue of flexibility and contingency planning in treating external risks. Political or environmental or economic crises can occur impacting on a supplier and therefore your supplier agreement should be able to take account of that. Predictive systems, out sourced strategies and back up sourcing arrangements enable businesses to mitigate crisis like such.

In conclusion therefore managing the performance risks of vendor negotiations has got to be a dual-stranded approach that incorporates proactive risk management best practices, well initialState formulation of contractual terms, and robust vendor relations. By applying the PESTEL framework—taking into consideration political, economic, social, technical, environmental and legal elements—firms are given a more extensive view of the external factors impacting a vendor's performance. Ecommerce business in bangladesh can definitely benefits from adopting holistic view towards risk management and vendor negotiation that bring opt healthy successful partnership. As

the e-commerce sector constantly changes, businesses must regularly change their plans to keep track of vendor performance risks, are able to provide lengthy stability and development in a dynamic market.

## **5.2 Theoretical Contribution**

Theoretical contributions for research in the area of vendor negotiation and performance risk management within Bangladesh's plus rapid growth in the e-commerce field provide a number of insights. These findings complement current theories on risk management, contract negotiation, and practices of project management within the domain of digital transformation. Firstly, using the PESTEL framework, which covers political, economic, social, technological, environmental and legal factors, gives a successor view under which the complications of merchant debates are apprehended. Historically, management of the risk has been focused on internal elements such as the use of resources as well as the objectives of a project. However, by using the PESTEL method of this research highlights how the external environment factors impact on vendor performance as well as the negotiated contracts especially on the developing country such as Bangladesh. Politically the study shows that unstable political conditions and often changes in regulation generally affects vendor negotiation, A explanation for this is changes with tariffs of trade or the government , this requires changes in the project cost, leading to a delayed delivery and increased risks. From a theoretical standpoint, this emphasizes the necessity for incorporating politics risk to the risk management frameworks of international and cross Border contracts. It changes conventional risk management strategies, which may not entirely incorporate external forces. Economically, the study finds that economic volatility such as currency fluctuations, and inflation impacts pricing and vendor performance. This is in accordance with financial risk management framework but highlights the importance of project managers to integrate adaptive tactics in their negotiation, for example through including flexible financial terms and exchange rate clause in contracts. The study implies a changeover in the manner in which economic factors get incorporated into the vendor negotiation methods, in support of a more dynamic reactive class of

contract suggestions instead of static transactions. Social factor also implies, one more significant implication as increasing demand for ethical practices and corporate social responsibilities (CSR) affects the vendor choice and performance checking. This ties into stakeholder theory, especially with regards to the increasing expectation of transparency and sustainability in the vendor-provided service and verification area. The results underscore the need to collaborate in vendor negotiations with transforming consumer values, a pattern relevant in increasingly global supply chains. In technology terms, the growing amount of digital resources and cybersecurity also creates more risk but offers chances for innovations in risk management. Managers d Projects Mukamatu n, utilization des Digital Platforms pour l'Environnementale et Lediting Vyuhe recent Monitoring du Energancement Et Insurance du Risque Ik biscuits presentation exceptionnelle du unsigned emerging Technologies withold Traditional Frameworks gameTime de Management Projects. The research implies that project management theories have to develop to effectively address these technological changes; they have by incorporating both digital risk management practices and monitoring tools for handling vendor functionality. The study also notes from an environmental perspective that climate change and environmental disruptions are having an ever-growing impact on supply chain sustainability. The inclusion of predictive systems and contingency planning in contracts with vendors moves the discussion forward on risk management thinking pertaining to the broadening of conventional operational risks to include environmental uncertainties. Ultimately, legal factors highlight the imperative for being in compliance with rapidly changing standards and regulations particularly in the realm of intellectual property and international trade agreements. These findings upset traditional risk management theories to engender more formal incorporation into vendor negotiation processes of legal compliance, highlighting the necessity to protect practical implementation of a supplier of compliance to the relevant legislation both domestic and global.

In conclusion, the study contributes to the theoretical development of risk management in vendor negotiations by incorporating external macro-environmental factors through the PESTEL framework. It calls for a broader and more adaptable approach to risk

management that goes beyond internal project considerations to account for the broader external environment that shapes vendor performance. This approach is essential for future research and practice, particularly in the context of rapidly digitalizing markets like Bangladesh.

### **5.3 Managerial Implications**

The findings from this study offer interesting contributions to the needs and strategies regarding vendor negotiation and performance risk management in Bangladesh's emergent e-commerce industry. We are witnessing how e-commerce goes farther, as the changes in consumer behavior and technological advancement drove the revenues of businesses. And understanding how to manage vendor relationship is essential for businesses seeking to be more competitive and stay relevant in the long run.

This shows the importance of vendor evaluation and is carried out meticulously before a contract being entered into. But when it comes to the vendor's operational capacity, financial stability and technological infrastructure, project managers (PMs) need to assess to avoid performance risks with the vendor itself. For instance, poor infrastructure can severely affect vendor performance and delay, poor service quality and operational bottlenecks. In order to prevent these problems, e-commerce businesses should check if the vendors have excellent operational ability, good IT system, and disaster recovery strategies. It will help make sure that operations run smoothly, or, err, rather, help prevent performance risks when disruptions do occur.

This research finds a big conclusion of having leverage of applying the PESTEL framework (Political, Economic, Social, Technological, Environmental and legal) in vendor negotiation. This tool allows the PM to identify and evaluate external factors which could impact on vendor performance. The study identifies Political instability, regulatory changes and economic fluctuations as some of the key risks to vendor relationship because they can significantly change. It's important that PESTEL analysis forms a part of a project manager's negotiation strategy to tackle these risks before they arise. For instance, having contingency plans in place if there is political unrest which could affect the service or the supply chain, as well as adjusting contract terms to allow people to

reduce the risk of exchange rate fluctuations would better protect against disruptions whether they affect the supply chain or the service itself. Technology does play a role to improve performance risk mitigation in the era of digital tools and e-commerce platform. In cases of E-commerce businesses, same vendors must provide robust IT systems that will support seamless integration with vendor platforms without any delays in order fulfillment and data accuracy. In conformance with that, one crucial measure is to have robust cybersecurity to prevent cyber attacks and data breaches that might have dire effect on vendor performance and business operations. Therefore, vendor technological resilience should be considered as one of the main criteria in choice of e-commerce business.

This study also provides a good reason to manage social and environmental risks. Companies have to make sure their vendors stand up to consumer expectations regarding corporate social responsibility (CSR) and sustainability. Businesses that integrate CSR criteria when selecting vendors and use the requirement that vendors are to meet specific environmental standards build trust with the consumers and they also reduce the likelihood of the risk to the company's reputation. In addition, vendor performance can be disturbed by environmental disruptions (natural disasters or pandemics). As a result, PMs should make sure that vendors have contingency plans and can mould to an unforeseen changes. In international vendor negotiations, as well as in general, legal compliance remains a key issue. It also highlights the importance of seeing to it that the vendor agreements adhere to labour laws, intellectual property regulations and international trade regulations. For the legal risks it is involved in, strong compliance clauses ought to be incorporated in the contracts of e-commerce businesses. This approach will preserve business interest as well as that of the vendor, because all legal requirements will be met and standards in performance will be met.

This study concludes that enhancing strength of e-commerce business in Bangladesh requires a comprehensive approach of vendor negotiation and performance risk management. Frameworks such as PESTEL, investment in technology infrastructure, social and environmental market expectations and legal compliances make businesses very capable of enhancing the vendor relationship and operation resilience. These

strategies are not to mitigate risk of performance but the long term partnership will ensure business continuity as the market continues to become more and more competitive and dynamic.

#### **5.4 Policy Implications**

With rapid technological advancement, increasing internet penetration and shift in consumer behavior, the e-commerce sector in Bangladesh has grown to this extent. Yet, as the research highlights, the vendors management and performance risks are particularly challenging, especially in the context of the vendor negotiations. To tackle these challenges and assist in the extension of the e-commerce business, some policy recommendations should be made at both the governmental and the organizational levels. These policies would reduce the risks, advance stability and enable Bangladesh's e-commerce ecosystem towards resilience and sustainability.

The ambiguity of Bangladesh's regulatory environment is identified as one of the key challenges in the study as it impacts vendor performance and contract enforcements. The National Digital Commerce Policy of 2018 is the government's current e-commerce policy and it has set up a good basic institutional position; however, it needs to be maximized, especially along vendor related risks. This is where rules need to be made clearer, more easily enforced, namely in intellectual property rights, consumer protection in all cross border trade. Enforcing this would be necessary for e-commerce businesses to compel vendors to fulfill contractual obligations where such vendors delay delivery, fluctuate in cost, or provide poor service. In e-commerce, the government should put in place more disciplined guidelines for vendor management and disputes settlement that should include penalties for non compliance in e-commerce contracts with specifically defined service level agreements (SLAs). In addition to this, a standardized framework established for vendor agreements would allow a more smooth negotiation process and more legal certainty for the businesses and vendors.

The study demonstrates that vendor relationship performance risks are a great concern for e-commerce project managers. With third party vendors playing a vital role in logistics, warehousing and IT, policies should be instituted to enable business to follow

best practices in the area of risk management. The first of these practices would entail the screening of vendors in terms of financial stability, technical infrastructure and reliability of the performance. The government should provide incentives to businesses which implement complete comprehensive vendor risk management systems. It could have been through giving tax supports or financial supports to companies using advanced risk management technology, such as predictive analytics or artificial intelligence (AI) for predictive vendor risks. Additionally, it could provide a valuable way of increasing the sector's resilience by offering workshops and resources to assist businesses with developing these capabilities.

Modern technology acts as an effective solution to safeguard vendors from risks by protecting their cybersecurity assets and maintaining IT infrastructure and system integration capabilities. The present technology barriers prevent Bangladesh's e-commerce industry from developing because of weak infrastructure which is limited to urban centers. Lack of proper infrastructure stops vendors from reaching their performance goals through fast efficient quality service provision thus creating additional operational risks. The government must establish digital infrastructure investment policies as their prime focus to benefit underdeveloped areas. The government must implement programs for internet connectivity development together with security standards and deliver cloud adoption support to small and medium-sized e-commerce businesses. The government should set up public-private partnerships to build vendor support systems directed at meeting both rural and underdeveloped vendor operational needs.

Consumer concern about e-commerce ethical conduct persists in its upward trend because customers examine environmental sustainability measures together with labor practices. Business providers who fail to maintain acceptable ethical standards face operational risks and deterioration of business reputation. E-commerce platform trust levels from consumers decrease because vendors do not satisfy the growing customer interest in social responsibility and sustainability measures. The government needs to enforce detailed financial responsibility provisions that monitor vendor quality control and environmental effects and consumer information safety requirements for e-

commerce vendors. The public disclosure of e-commerce business CSR information remains a mandatory condition under government policy while vendors serving these platforms must respect essential sustainability standards and ethical principles. Those seeking ethical vendors can use an ethical vendor certification system to find partners delivering sustainability at consumer-defined levels.

Research findings show natural disasters make supply chains experience significant interruptions that lead to delayed deliveries and inferior vendor execution. Businesses together with their vendors must enhance their readiness to manage environmental risks because these disruptions occur more often. The government needs to develop a policy that encourages e-commerce entities to develop preparedness plans for disasters and business continuance strategies. E-commerce businesses can obtain government funding to buy risk reduction solutions through disaster recovery systems and specialized disaster response vendor network planning. Environmental risk management should be incorporated into vendor contracts through specified clauses about disaster recovery and alternative sourcing to ensure protection from unexpected interruptions.

The existing literature lacks comprehensive knowledge exchange concerning vendor negotiations together with risk management approaches which e-commerce companies implement. The absence of mutual collaboration prevents businesses from absorbing knowledge about successful and failed vendor relationship management as well as risk prevention practices. The government must build industrial platforms which enable e-commerce businesses to unite with their vendors as well as regulatory bodies through an industry-specific knowledge exchange network. These platforms would serve as venues to address vendor management problems while permitting the exchange of risk reduction techniques together with analysis about modern technology alongside regulatory developments and market behavior notices. The establishment of these platforms would create a learning environment for improvement as well as increase the resilience across the entire e-commerce industry.

These policy recommendations establish a total strategy to solve vendor management difficulties that evolve within Bangladesh's e-commerce industry. The government

should build up legal structures together with technological infrastructure enhancement and vendor transparency standards and improved disaster readiness to establish an enduring prosperous e-commerce sector. The implemented policies combine to develop the e-commerce industry while making it strong enough to adapt during changing market conditions and external threats.

## **5.5 Limitations and Future Research**

There are several limitations that should guide future researcher activity in the field of vendor negotiations and performance risk management in Bangladesh's e-commerce sector after conducting this study. The research bases its conclusions mainly on information collected from five project managers who work within this specific business sector. The selected project managers provide rich data but the research fails to represent the entire industry because of which generalization of results becomes limited. Subsequent academic research should expand its scope through representative data collection from a wider variety of project managers and vendors and additional relevant stakeholders to properly understand field dynamics.

The research examines the PESTEL framework as its primary method to determine external elements affecting vendor negotiations. The complete analysis from the PESTEL framework may overlook essential factors which alongside organizational culture or negotiation tactics shape vendor negotiation outcomes. Future research should study the internal elements of vendor negotiations or adopt multiple theoretical frameworks to understand these situations in greater detail.

This research relies on an interpretivist approach because it proves ideal for interpreting participant subjective experiences. The study relied on qualitative information yet this type of data may lead to interpretation bias from the researchers. Quantitative research methods should be integrated in future work to confirm the research findings and deliver an objective evaluation of risk management performance results.

The fast-transforming e-commerce market of Bangladesh demands future research to monitor vendor negotiation processes and risk development patterns through long-term studies. Research into this subject would clarify how such long-term factors as

technological progress together with political transformations and economic fluctuations impact vendor relationship patterns in e-commerce.

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## 6 Appendices

### Appendix 1. Interview Questionnaire

1. Political modifications within the government framework influence how you manage vendor relationships and negotiation terms during e-commerce operations?
2. What strategies would you employ to mitigate the risks in your supply chain that is going to be at risk of political instability and changes in trade tariff?
3. What strategies do you implement to maintain supplier performance regarding cost-effective products that meet quality standards and are delivered punctually during economic downturns and periods of inflation?
4. What methods do you employ to deal with a currency exchange rate movement volatility at vendor negotiation?
5. What effects do foreign exchange rates produce when negotiating with vendors?
6. What steps can supplier firms take to maintain operational excellence as consumer scrutiny of social responsibility and ethics grows?
7. What function of incorporation technology do you use in maintaining strong vendor relationships?
8. What impact do technological disruptions, invade of cyber-attacks and system downtime have on vendor performance, in your opinion?
9. What steps have you taken in your company to protect it from such IT perils?
10. Can you share an illustration of a time that environmental disturbances occurred and what specific endeavours you executed to aid vendors to keep up operational levels amid these events?
11. What is being done from your side to see that your vendor agreements conform to the labour laws, intellectual rights and international trade regulations?