E-Commerce and Information Technology: The Risks and Opportunities
(Saudia Arabia as a case study)

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Abstract

In the digital era, the integration of e-commerce and information technology (IT) has transformed the landscape of global business. This study explores e-commerce as of the potential opportunities and risks that entail this modern virtual form of trade associated with the growing reliance on digital platforms for commercial activities. The study elaborates insight of the essential background of the integration of e-commerce and IT as the backbone of e-commerce. This study adopts a qualitative research approach to explore the risks and opportunities associated with the integration of information technology in e-commerce. The qualitative method was selected to allow for an in-depth understanding of how businesses perceive and manage the challenges and benefits brought by digital transformation in commercial activities. Data were collected through document analysis and a review of existing literature, including academic journals, related to e-commerce and IT systems. The researcher reaches a number of results. The most prominent of these is that IT technologies as the backbone of e-commerce, are the essence of "virtualizing" trade. The study concluded with some recommendations; the most important is incorporate IT and e-commerce content into educational curricula, particularly within business and languages departments, to prepare students for the digital economy.

Keywords: e-commerce; virtual trade – IT Technology

1. INTRODUCTION
1.0 Background

US President Trump "*has aborted globalization*," I heard this remark made by a BBC commentator amid the global Trade War that the president has launched by his massive tariffs. I chose this hook sentence as a good attention getter to highlight how far globalization and e-commerce have taken us. Not to mention of course its direct relevance to the subject of this paper. The hook sentence as well, implies how unfair e-commerce is. It is unfair because the backbone of e-commerce which is information technology (IT) is a monopoly dominated by a few nations. That is why it is safe to say that our globe is divided into two halves when it comes to IT technology: the inventors' half, and the consumers' half. Meaning, the developed countries, e.g., Europe, Japan, USA; are not only the creators of IT technology, but also are holding all its "strings' in their hand. This is while the "third world" remains only a consumer of the technology; entrusting their banking/financing data, personal data and even the cyber-protection of their networks and devices to the inventors. This disparity and unmatched reality has resulted in us, the "third world" lagging behind at all levels. So, email, e-library, e-Pay, e-Pal, e-Commerce; and this list goes on; this is just how far information technology (IT) has taken our world.

Online stores can either be or a broker liaising between the original store and the customers or a stand-alone store. In either cases the online store's activity website-device or website-phone or both as recently the online stores are. Social Media is a key facet in online sores that represent the sales outlet in physical stores and even richer with contents. The online stores today employ Social Media by connecting it to the Shop Website, including well designed Instagram homepage, Telegram and eye-catching YouTube video clip. Online stores also use intensive PR approach that help them increase their customers' expectations and they take every opportunity of a new IT technology introduced in form of phone App packages for promoting their services/products to the customers and clients with an effective PR approach.

❶ Online Store: a platform or showcasing: products' photos, prices, features, etc.
❷ Interactive homepage: for selecting product, providing shipping info, etc.
❸ Electronic pay (eBay) with billing function
❹ Door-to-door delivery service by either 3rd delivery service provider or the online shop's physical outlet.

A Typical B2C e-commerce Transaction

1.1 Problem of the study:

Despite the rapid global expansion of e-commerce and the increasing reliance on information technology (IT) in business operations, many organizations continue to face significant challenges in fully leveraging these tools. While e-commerce offers substantial opportunities for market expansion, cost reduction, and customer engagement, it also exposes businesses to various risks, including cybersecurity threats, data privacy violations, infrastructure limitations, and regulatory complexities.

1.2 Hypothesis of the study:

This study hypothesis that, without having a background on the ERP concept, corporate network and the several IT technologies, there is no way that one can understand what –e-Commerce is about. It because no matter how these areas may sound too technical, they are essential for grasping the full idea of e-commerce. So, the least we could do to catch up is more IT knowledge and awareness as follows:

- There is a statistically significant relationship between the adoption of e-commerce and the achievement of business growth and innovation opportunities.

- There is a positive correlation between the use of information technology and customer satisfaction in the e-commerce environment.
- Modern business managers are IT literate due to their reliance on IT-generated reports for managing institution operations.
- Privacy and data protection risks represent a major barrier to the expansion of e-commerce.

1.3 Significance of the study

This study is significant as it provides a comprehensive analysis of the dual nature—risks and opportunities—associated with the growing integration of e-commerce and information technology (IT) in modern business environments. As digital transformation accelerates globally, understanding both the advantages and the vulnerabilities of e-commerce systems has become critical for businesses, policymakers, and consumers alike.

1 .4 Objectives of the study:

1. To examine the main risks and challenges associated with the adoption and implementation of e-commerce and IT systems.
2. To outline the main components of e-Commerce and provide an insight of each including IT technical and technological background as possible.
3. To evaluate the impact of information technology on customer satisfaction, operational efficiency, and business growth.
4. To explore the role of cybersecurity, data protection, and regulatory compliance in shaping e-commerce practices.
5. To provide recommendations for businesses and policymakers to maximize the benefits of digital commerce while minimizing associated risks.

1.5 Method of the study

This study adopts a qualitative research approach to explore the risks and opportunities associated with the integration of information technology in e-commerce.

1.6 Questions of Study

1. How much are e-Commerce and IT technology correlated?
2. What are the essential IT technologies that are required for getting a gist of e-Commerce?
3. What is beneficial role of AI technology to e-Commerce?

4.   What are the main opportunities that e-commerce and information technology offer to businesses in the digital economy?
5.   What types of risks are most commonly associated with the use of e-commerce and information technology in business operations?
6.   To what extent does the use of information technology influence customer satisfaction and engagement in e-commerce?

2. LITERATURE REVIEW

2.0. Overview of E-Commerce

Online stores can either be or a broker liaising between the original store and the customers or a stand-alone store. In either cases the online store's activity website-device or website-phone or both as recently are the online stores. Social Media is a key facet in online sores that represent the sales outlet in physical stores and even richer with contents. The online stores today employ Social Media by connecting it to the Shop Website, including well designed Instagram homepage, Telegram and eye-catching YouTube video clip.

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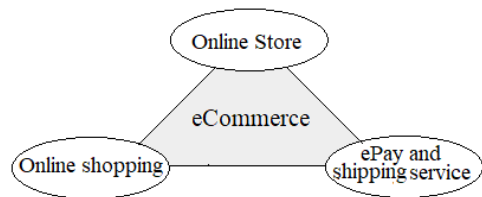
Online stores also use intensive PR approach that help them increase their customers' expectations and they take every opportunity of a new IT technology introduced in form of phone App packages for promoting their services/products to the customers and clients with an effective PR approach. Online stores are considered one of the least costly of all and in the same time one of the most profitable. Capitalizing such online store activity for example costs only SR50,000 is nothing compared to the communal gains it is going to realize. The business feasibility studies show that 80% of the Saudi households are spending an average SR500 per month in online ad according to Al-Badri (2018). The stats show that, Kingdom-wide e-commerce witnessed 45% growth recorded in commercial license reiterations for delivery services published by the Ministry of Commerce revealed a via electronic platforms as well by the end of the third quarter of 2023 (MoC, 2023). The number of commercial license reiterations for delivery services via electronic platforms in the 3rd quarter of the previous year 2022 reached 3,024 records, compared to 2,084 businesses during the same period. Riyadh topped the top 5 regions of Saudi Arabia in this regard with the number of license reiterations of 1,645 business, followed by Makkah with 775, then the Eastern Province with 291, and fourthly, Madinah with 83 business. Delivery services in Saudi Arabia has witnessed significant growth, due to the traffic getting heavier as well as for the vast development in the structure of modern society. The main reliance of households on buying their products has become through e-commerce platforms and the delivery services associated with them. The areas of delivery services in the Kingdom varied as the stats show and this is according to the nature of the product that the customer wants to receive. These examples of the 10 highest delivery applications in Saudi Arabia that constitute about 45%, which include options ranging from food to postal parcels. Globally, the businesses that have boomed during the pandemic are the topic in an article by Fredric (2020). The article highlights technologies, online shopping, deliver service and sanitation as the top businesses that boomed. It enumerates the reasons as: Covid-19 pandemic and the shutdown of businesses all over the world besides more than usual household activities brought about for specific services. Another similar article about the worldwide shortage of sanitation supplies is the article of CDC Rev (2020) that supplies stats and figures. The article by Fredric (2020) estimates the world now is meeting only 46% of the need for masks,

medical gowns and respiratory equipment. In Saudi Arabia, the daily paper Saudi Gazette (2020) speaks of the private sanitizers companies that almost ran broke before Februarys 2020 until Covid-19 pandemic boosted the need for such supplies. Industries that boomed after the coronavirus pandemic.

2.1.1. Stages of e-Commerce development

The change from manual work to computer work, was the first step through the development of e-commerce. Until as late as the 1970s and the mid-1980s, still the computer was not that popular. Then, and by the mid-1990s, the internet started to be intruded and used to transform the world with rapid pace. By the early 2000s the internet connected almost all the corners of our world. Along with this advance and development of the internet, more computers have been interconnected in networks.

2.1.2. The computerization of work

The computerization of work is technologically termed as Enterprise Resource Planning (ERP), and it was the real huge breakthrough in the birth of e-commerce. Since then, ERP implementation is no longer a matter of option for business organizations according to Al-Ghamdi (2003) and for several compelling reasons. An existential reason to adopt ERP, is otherwise losing connection with customers, vendors and even with government agencies since they have all gone on-line and moved their service and activities to their websites. Another advantage rather than a reason for adopting ERP is reducing man-hour and the size of the workforce which is of an economic gain besides the quality of the service. The business sector was the first sector to entwine with IT technologies according to Bello-Pintado (2015).

Manual Work   ⇨   Computerized Work   ⇨   Network   ⇨   World Wide Web
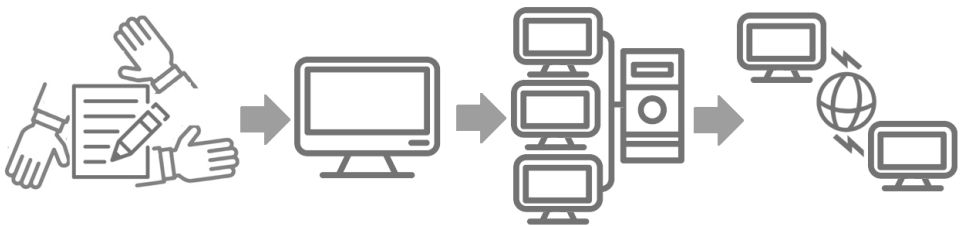
Embracing technology vs. 'resistance to change', is no longer a usual conflict in modern organizations, let alone in a company as notable as Saudi Arabia's oil company. However, and for reasons to be unveiled later, a unit in one of the company's departments, doesn't adopt IT technology even though it is dedicated to postgraduate degree programs. It has been long since almost every average organization embraced the Enterprise Resource Planning (ERP), a concept of "computerizing" work averments (Sidani, 2018). This is the situation with modern post-1995 business organizations, where its employees are today fully working with computers and no longer manually handling a whole set of processes related to and involves several parties and functions.

Today it has been long since almost every average organization embraced the Enterprise Resource Planning (ERP); a concept defined as, "Simply computerizing, digitalizing or transforming the conventional work systems to the High-Tech one" (Bourgeois & Bourgeois, 2014). It goes without saying that, organizations of all types and in all industries, today run on one of many Management Information System (MIS) software. The transaction processing system (TPS), the Management Information System (MIS), the Decision Support System (DSS) and the Executive Support System (ESS) are some of the key widely used MIS technologies. These MIS technologies comes both; as stand-alone and as package -like the renowned SAP system (Serheler & Hovic, 2018). They process both the managerial and the operational functions of the company in addition to the reporting function on which top managements depend in making decisions. Figure (5) below illustrates this.

2.1.3. Corporate networks introduction

The term "network" may suggest complex computer framework for some people with little background about computer and information technology (IT). When in fact we have some forms of networks in our homes. Our printer which is connected to the computer, the broadband which wirelessly connected and the USB connecting the laptop to our cell phones; all these together make up a network (Kefin-noir, 2014). So, the term "network" is not that complex idea even though other wider networks become complex. e-commerce has kicked out since then and after introducing new work system. Huang (2006) describes the basic process of designing network planning as like designing a city's road system, and the

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same thing and even more complicated designing a network planning because the designer has to choose among many factors and accounts for all possible routes for future expansion. Ritzman and Larry (2005) says the process of designing network planning begins with arranging the client-server applications which need to be a reliable and available communication channel between systems. According to the article, the difficulty lies in the fact that the network which provides this link should be correctly sized to meet capacity requirements desired. The new IT technology and work schedules have impacted the workforce of the organization differently and this fact is addressed in business studies; namely Organizational development (OD). This field of business studies is opposite to individuals' or work development as it is defined: "The OD is a field of professional practice focused on facilitating organizational change and improvement" according to HRM ARS (2008). Organizational development (OD) there is an indecent area of studying business with its own OD theories and practice that are based on both the social and behavioral sciences of business studies. The OD theories and practice came about as contribution by several scholars ahead of who theorized on evolution back in 1960s according to Jaworski (2016) and has been evolving and expanding ever since. The OD theories and practice are founded on a wide range of disciplines including – on top of which the "Sociology of Organizations, and others like social psychology, industrial-organizational psychology, group dynamics, and a few more. An article by Asongu et al. (2019) analyzed inequality, information technology and inclusive education in Sub-Saharan Africa. The authors contend found that countries with greater levels of gender inequality also had higher levels of information technology usage and greater access to education. This suggests that technology can play a key role in reducing gender inequality by promoting greater access to education for both men and women. These findings are supported by Beto-Faye, 2024) in his study examining IT and gender diversity in power sector utilities. The authors argued that power utilities should promote gender diversity in order to improve efficiency and reduce costs. Their study suggested that power utilities should create gender-sensitive organizational structures and explore opportunities for training and education for Family Companies employees.

3. **The components of E-Commerce**:
3.1. Information systems (IS)

Another e-commerce component is Information systems (IS) which are a set of business communication technologies according to IJNWS Journal (2012). One of the roles of IS systems is communication which is the heart of all dealings including business and business transactions. In this age of information, technology is flooding too much information that, accommodating it became more issue then collecting it. For this reasons and as part of management role of any company, gathering and distributing information, and utilizing it pass by the information systems IS of different types and forms. This type of communication which is based on the different IS technologies lets employees collaborate in a systematic way.

Second role of IS systems in business is operational excellence; as company would be missing a lot and stay behind competitors if it does not make the information gathering process more efficient by allowing managers to communicate rapidly. This is because businesses can always improve their efficiency of their operations and outputs in order to achieve higher profitability. Businesses can achieve this by continuously having the correct amount of stock in store so consumers can always get what they want.

Third role of IS systems is handling new product services and business models. Especially noticeable on service businesses, the IS systems are playing a major role in creating new products and services by dint of software programs. By using some of IS systems, new business models and services can be created and these can describe how a company produce, create and sell their products. Through networks today each employee can communicate additional information by making changes that the system tracks instead of the obsolete paper folders.

Third role of IS systems is customer and supplier intimacy. Companies whether product or service they care and focus on their customer's base and it would be faster and wider via IS systems. The manager of companies using different IS technologies to collect the inputs and sends the newly revised document including customer base to his target audience to mention the business to business (b2b) and communication with the other branches, divisions and affiliates of the company outside its main premises. Companies realized the fact that, the better services they provide their consumers with service, the more likely they come back to

them either for the quality of the service, convenience, or speed. This way of business can't miss such result of more customers willing to buy off the supplier therefore creating a good relationship with both parties.

Fourth role of IS systems is day-to -day survival of the business. It is a fact that, a business which invest IS systems are able to make their jobs as easy as possible. This can be seen as the example of ATM machine and how much it made it easier for customers to access their money, accounts and to cut down queues in their banks. The same sense with IS systems starting from the simple email which is quick and effective, and how managers can use information systems even more efficiently and at larger scales by storing documents in folders that they share with the employees who need the information through the company's network.

3.2. Management Information System (MIS)

A paper by Brussevich, Dabla-Norris & Khalid (2019) gives a holistic introduction to management information system (MIS). The (MIS) system is a computerized database of financial information that is organized and programmed in such a way that it conducts and produces regular financial reports. The MIS system auto-conducts operations for every level of management in the company. By the use of several MIS system's applications is possible for managers to obtain special reports from the system easily. The MIS system basically targets managements as it provides managers with the tools to organize evaluate and efficiently manage the different departments within a company. This internal control and management is important in order to provide past, present and prediction information, through the various MIS software tools that helps in decision making, data resources such as databases, the hardware resources of a system which is the network backbone. The advantages that managers get from using MIS systems are illustrated by Beto-Faye (2024) in the table below:

|	
It helps managers make better decisions	
By having more informed decisions, wider access to data, reduced errors, understand trends and patterns in the data; and tells which products/services are selling best during certain times of year.	TPS
It helps managers plan ahead	
By providing real-time data that helps managers to see how well each department is performing at any given moment; manage business operations, efficiency and inventory levels. This gives them an full overview and the ability to plan ahead and make better decisions.	Oss
It automates tasks and reduce errors	
By automatically tracking invoices, inventory and billing at several locations at a time; and tells managers which customers owe the company money; does auto-search for invoices and flag them for review.	DSS
It enables collaboration between teams/departments	
It enables collaboration between teams and different departments; enables data sharing such as access to salespersons and customers' records and financial reports to determine whether a new product will be profitable.	ESS
It helps managers manage money spending	
By enabling managers to identify areas where to focus; identify areas of waste and inefficiency; track how much time each employee spends on certain tasks. It also tells managers what workload to adjust and if there is a discrepancy between the two figures, what needs to be done.	KWS

3.3. Cloud Computing (CC) :

Cloud computing as a key component of e-commerce is defined as "an extensive network of remote servers that communicate remotely by the internet throughout the world (Beto-Faye, 2024). These servers of the CC network store and manage huge data called "meta data" and also big Data, besides running applications, and deliver content and services like

streaming media, web mail, and office productivity software over the internet.

As a virtual network, Cloud Computing (CC) links servers worldwide with on-demand delivery of computing services whether those used as servers, storage, databases, networking, software, and analytics. Literature on Cloud Computing includes an article at Talent Adore (Feb 8, 2017) companies are catching up with Cloud Computing (CC) smart-technology is widely available and the article details that; IT combined with Cloud Computing furnish IT solutions for issues like Interoperability and the mix of operating systems in the network. Also, developing a Management Interoperability Services **(CMIS)** and provides the best database management and accessing.

Benefits of Cloud Computing
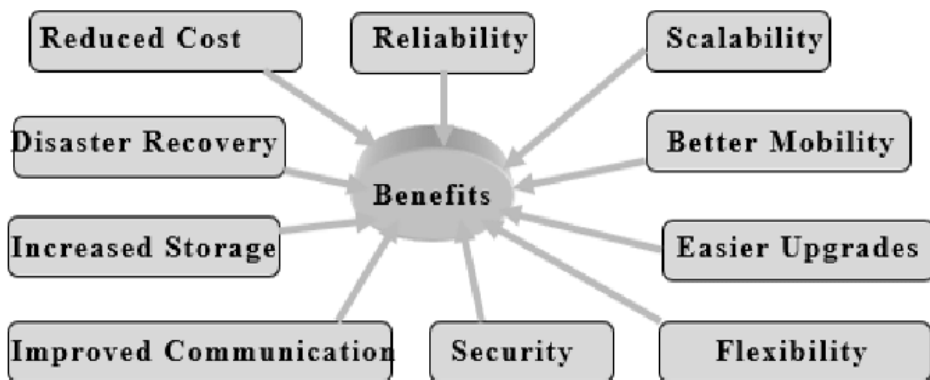
Cloud Computing (CC) this way, rather than keeping meta data on hard drive or local storage device and servers, they make the data available as cloud-based storage makes it possible to save remotely. In Cloud Computing the Representational state transfer **(REST)** is used as an architectural format for building a cloud network based software as described and the full picture with noting that all the tools used to develop the system can be downloaded from their website (Diefenthaler, 2010). In the modern organizations of today, they ensure that, their IT networks work effectively, securely and reliably. They even dedicate an entire IT Department to control, coordinate, and operate the computer-related activities of their data assets and network security. Because these networks

run on sophisticated management information system (MIS) that are of a global inter-link and universality; companies may assign them to third parties (Ren, & Li, 2016). These third-party IT service providers offer prepackaged software, customized applications, system updating; cyber-security software, and data storage/retrieval tools. These third-party MIS systems' developers offer their clients 'Flexibility for Customization' besides their main line 'mass customization'. It is therefore no longer about trusting a third-party for business secrets or have them involved. These IT service providers today have taken "IT trust" and dependency even father; offering these services through the virtual platform –cloud computing (CC). The implantation process can be summarized in the followings:

- ✤ Implementation of CMIS/MIS is based on hybrid cloud computing architecture.
- ✤ In a private CMIS/MIS cloud computing implementation, only analysis module of CMIS, is implemented while the maintaining process is the responsibility of the user.
- ✤ CMIS/MIS cloud computing users also have to do backup process and to do its they have the option of database Amazon EC2.
- ✤ If the private CMIS/MIS cloud computing system is implemented, then the user should use Ubuntu 12.04 LTS for Cloud, Apache 2 web server and Virtualbox 4.1.22 for Linux.
- ✤ On the other hand, VirtualBox for Linux especially the Ubuntu 12.04 LTS version is used to if the users want to achieve virtualization of resources.
- ✤ For deploying cloud structure, it is recommended that users use the Xen because it is included with Ubuntu Server 12.04 LTS.

3.4. Artificial Intelligence (AI)

Since AI and e-commerce are at odd (discordance), this section of the literature on Artificial Intelligence (AI) is going to be short and limited. Nowadays as the world is living in the fourth (4th) Industrial Revolution, technologies which is also known as the age of Artificial Intelligence (AI). The complex AI technology mainly uses the Machine Learning (ML) function which is "training" the computer until it is able to do near-independent thinking *Gault, 2021). AI technology use in e-commerce is limited to intra-business (within the company) rather than inter-business (between companies). In fact, according to Ferdinand (2015), AI technology is behind many instances of unethical business practicing

including manipulating the customers, abusing their personal data as well as abused in cyber-crime. Otherwise the intra-business or "within the company" use of AI technology is helpful both at the B2B and the B2C levels which are already improving the customers' experience: business model modernization and expansion; dynamic product experience management (PXM); order intelligence; payments and security. Considering one sector from the aforementioned disciplines, Artificial Intelligence (AI) becomes more widespread in the form of self-decision making like in auto cars (AVs) or Autonomous vehicles (Gaio & Cugurullo, 2022). As artificial intelligence (AI) technology curated developments culminated in more tangible applications from 2018 and after, several studies evaluated the impact of AI on e-commerce. While AI technology helps in improving e-businesses' inventory tracking by accurately and instantly analyzing actual data, scaling as Inventory Management Systems (IMS), among others it has its drawbacks. Therefore, and despite AI technology's contributions to the improvements of data management, data sharing, and inventory tracking no business organization would want to open its gates to become "back door" for breaching.
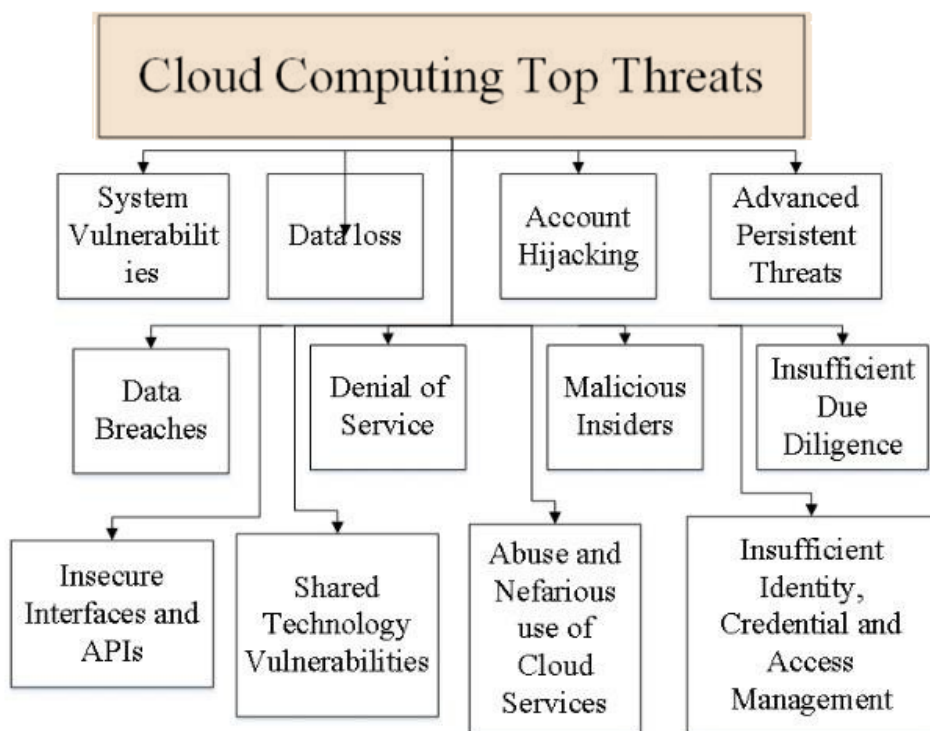
4. Risks and challenges facing E-Commerce

The worldwide open WWW as the "gateway of e-commerce though, is also for threats to come through it. The cyber issues, breaches, hacking and also dependency all are challenges that came from this modern communication technology (Sahaaban, 2015). The behavior and practices of individuals are still key to cyber security in all the organizations of modern day. This is true with the world has moved to World Wide Web of the internet connection. All the slices of all societies: individuals, organizations and even government are now online. However, these wide webs are still operated by individual persons are making mistakes and also include malicious persons with bad intents. The challenges of Balancing Security and Innovation:

- o   Technological advancements and their implications for security.
- o   Cyber-security threats and the need for data sharing.
- o   Economic and social benefits of data-driven innovation.
- o   Ethical considerations and human rights implications.

Vulnerable Areas	Risk details
Business records data base	It is the most critical and most vulnerable type of data. More than the fact that loss of business records data is not fixable, it is easily damaged by cyber-attack.
Open Source linkage	Linking to open source platforms like Moodle, as an international hub accessed by e-learners worldwide, also a target for cyber attacks
Financial data base	The financial records that include staff accounts and students' tuition payments maybe lost causing costly damages.
IT glitches	System outage and other technical issues are likely to happen.

Corporate networks may also be the source of the cyber-threats according to their businesses' legal/illegal practices. Examining the published data on the Cloud Computing business environment as of the legal/illegal practices of the companies, the research Al-Kaabi (2019) obtains this data on the reported top threats that Cloud Computing: These service providers today do not have CDs or hard drives or even software to install in the clients' server computers, but simply host them on their cloud platforms. Still however, the organizations need to have their own "local platforms", i.e. websites. On this regard, the paper by Wazir & Khan (2019) furnishes valuable information; dividing websites into three types: 1) information-only, websites, 2) Information-transfer website, 3) and fully-transactional websites. Information-only websites are defined as "a website for sharing key messaging with the website visitors allowing them access to general-purpose information, besides transmitting non-sensitive (unencrypted) emails". Meaning this type is a kind of an internet façade of the organization that joins it and its customers, and consequently minimum potential cyber risks. The second, 'Info-transfer website' is an interactive one that enables exchanging sensitive encrypted messages, documents, or files among a group of users –the company and its client's. Meaning, in 'Info-transfer website' type the process of moving messages contains users' vital *information* from a source to a sink via -the internet provider or a host website just like in banks' websites.

Cloud Computing Top Threats

| System Vulnerabilities | Data loss | Account Hijacking | Advanced Persistent Threats |

Data Breaches · Denial of Service · Malicious Insiders · Insufficient Due Diligence

Insecure Interfaces and APIs · Shared Technology Vulnerabilities · Abuse and Nefarious use of Cloud Services · Insufficient Identity, Credential and Access Management

With all these cyber-threats illustrated above, we can conclude that AI and e-commerce are never friends or a good math. It is in this type that the issue of security risks arises such as data privacy and confidentiality, data integrity, authentication, non-repudiation, and access authorization. Thirdly, the 'fully-transactional' website the type that combines the functions of the others 2 types; the info-only and the fully-transactional plus the interactive (real time) connectivity between the customers and the administrator. It is also while the cyber-risk is triple in this 'fully-transactional' website ty

5. E-commerce and globalization

Initially, it is agreeable that the technological development brought the world together and this is attributed to globalization's space of inter-state exchange of trade, science and technology. If we think of MS Windows's contribution to globalizing "computer literacy" and think of

multination corporations (MNCs) that are operating in and employing local communities and transferring the know-how we can feel how globalization has contributed to enlightening the world (Donnely, 2024). In fact, without globalization's concept and practices of freed trade, borderless business organizations and inter-state cooperation in all fields, nations especially the poor ones wouldn't have utilized science or technology. On the other hand, how globalization promotes diversity, has to do with global inter-state trade like the case of the MNCs and the other forms of foreign investment. However, when it comes diversity it is not a readily pro-diversity situation because it depends host country too. Meaning, the foreign Company X may have a workforce of a multi-nationality, but host country may a gender-situation or a marginalized community as Rajiv (2018) argues. So, the statement that globalization promotes diversity, is not accurate if take the forms of diversity; gender, religion, social orientation and others. The fact that the total workforce population size of a foreign organization is far less than the local one's which means a limited diversity that cannot be generalized. Inter-culture communication, recognition and embracing the cultures of others; are usually viewed as globalization's "bright side". According to Walterer (2011) even though the conception of globalization hasn't yet fully been materialized, its cultural impacts have. This is true when we take the example of the multination corporations (MNCs) and how their work staffs mingle with and interact with local communities. Not to mention the MNCs good practice of corporate social responsibility (CSR) by which they even contribute to the development of the communities they operate within. So, all these levels and forms of interaction and inter-state understanding bring societies together and indeed promote the sense of "togetherness". So, these forms of inter-state interaction and understanding necessarily leads to exposing a society of a certain culture to another one of a different culture. However, the anti-globalization view discredit all these advantages and has its reservations towards globalization especially with regard to cultural identity. Ironically, the same globalization's advantages of freed trade and borderless business are taken against globalization as a threat to the local cultural of some nations. One anti-globalization voice is like that by Donnely (2024) argues that culture and economy are inseparable and the western culture is just sweeping the others through the trade pretext. Whereas, another anti-globalization view voiced by Rajiv (2018) argues that globalization does

have its positive impacts on cultural identity, but in the "pragmatic" economic level only which in the end deforms people's view of their culture as inferior. The author is referring to the "westernization" phenomena where locals imitate the western lifestyle as they mingle with them.

To sum up the argument, while globalization does and has promoted inter-state togetherness in some levels and aspects, it is not so in others to same level. This is because globalization isn't simply an (equal) two-way path for nations to exchange trade, science and technology. Indeed, the developed (industrial) nations have the upper hand over the under-developed ones in terms of trade, science and technology. On the other hand, if such aspects of disparity and inequality are resolved, globalization would lead better inter-culture togetherness and diversity.

Discussion

The study confirms that e-commerce presents vast opportunities, such as cost efficiency, market expansion, customer data analysis, and real-time transaction processing. These benefits are particularly evident among digitally mature firms that have embraced cloud computing, digital marketing, and online payment systems. For many, digital platforms serve as an equalizer—enabling even small firms to compete on a global scale.

However, these opportunities are tempered by significant risks, most notably cybersecurity threats, data breaches, and regulatory compliance challenges. The research shows that cyberattacks such as phishing, malware, and denial-of-service attacks can severely disrupt operations and damage customer trust. Moreover, failure to comply with data protection regulations can result in legal penalties and reputational harm.

The discussion also emphasizes the need for multi-stakeholder engagement: governments must provide regulatory clarity and support infrastructure development, while businesses must invest in secure systems and educate both employees and customers about safe digital practices.

CONCLUSION

This study explored the integral role of information technology (IT) in shaping the landscape of modern e-commerce, emphasizing both the vast opportunities and critical risks involved. **First**, it can be concluded that e-commerce is undergoing both risks and opportunities, but still the potential for economic growth, efficiency, and global market access makes its benefits far greater than its risks.

Secondly, e-commerce and IT technologies are complementary to each other and without this mix we wouldn't have witnessed today's global online trade.

Thirdly, IT technologies as the backbone of e-commerce, are the essence of "virtualizing" trade; namely, e-stores, e-shopping, and e-pay so it is foundation of virtual trade.

Fourthly, the risks/ challenges that e-commerce is undergoing are the same as those corporate networks face which is cyber security and cyber threats.

Fifthly, Controversial Role of AI: While AI offers improvements in customer experience and inventory management, it also introduces ethical concerns such as customer manipulation and privacy breaches.

Sixthly Significant Growth in Saudi Arabi has witnessed rapid e-commerce expansion, with high adoption rates of delivery services and online transactions, especially during and after the COVID-19 pandemic

In summary, the digital transformation of commerce has introduced a dual reality: unprecedented opportunity paired with considerable vulnerability. The path forward lies in maximizing technological utility while minimizing exposure to risk.

Recommendations
1. **Promote IT literacy across all business sectors**—business owners, managers, and instructors (especially in Business English and management programs) must understand core IT concepts to adapt effectively.
2. **Incorporate IT and e-commerce content into educational curricula**, particularly within business and language departments, to prepare students for the digital economy.
3. **Strengthen cybersecurity frameworks** by investing in secure infrastructure, staff training, and adherence to best practices in digital risk management.
4. **Advocate for fairer access to technology** for developing nations by promoting international cooperation, knowledge sharing, and equitable trade agreements under the WTO framework.
5. **Support continuous professional development** in emerging technologies such as cloud computing and AI to keep pace with the rapidly evolving digital trade landscape.
6. **Regulate AI Usage**: Establish ethical standards and regulatory frameworks for AI in business to protect consumer rights and data.

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