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Literature review of factors affecting the online purchase intention in Iraq

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Abstract
The advent of electronic commerce (e-commerce) has resulted in significant benefits for businesses, with e-commerce becoming indispensable for small and medium-sized enterprises (SMEs) all over the world. E-commerce is considered an appropriate technique for selling, marketing & integrating online services that can play a significant role in determining, maintaining & getting customers. However, e-commerce adoption remains a vital yet evasive & complex phenomenon, with little known regarding its determinants. The goal of this research is to provide an overview of e-commerce usage among SMEs. It identifies the e-commerce benefits realized through these SMEs. It conducted an intensive review of the related literature to cover this study's variables. The study was performed utilizing a non-experimental study experimental research design. This exploratory study included an essential investigation into secondary data. The study development & modelling of secondary data to highlight the research's final results by reviewing the literature of the existing frameworks & models in e-commerce adoption. Additionally, it is proposed that future researchers do a field study by collecting primary data and conducting statistical tests on the essential components that help in the adoption of e-commerce in Iraqi SMEs.

Keywords: UTAUT-TAM, e-commerce in Iraq, online purchase, SME

Introduction

The remarkable development of ICT has led to the development of several fields, like commerce, the economy, banking, and customs. (Rahayu & Day, 2017) [85]. Since time passes, classic commerce will no longer be able to react to modern requirements. Therefore, it will require new business techniques. Hence, benefiting from novel & modern techniques like e-commerce in performing commercial functions can play an essential role in the achievement of commercial firms (Sebora *et al.*, 2009) [93]. Electronic commerce is the selling & buying of services or products through electronic systems, including the Internet & other computer networks. Usually, modern electronic commerce uses the World Wide Web, email, mobile devices & telephones (Akanbi & Akintunde, 2018) [5]. E-commerce has provided many advantages, and this is why e-commerce has become very popular among companies & it is noted that this interest by e-commerce companies from the growing growth of e-commerce use by companies from year to year. Data on small and medium enterprises (SME) that made a profit in the United Kingdom (U.K.) in the first half of 2020 shows that in the property and business services sector, 70 percent of SMEs made a profit, compared with 58 percent of SMEs in the hotels and restaurants sector.

From 2014 to 2017, the market size of the e-commerce industry in selected countries in the Middle East and North Africa (MENA) region was. The magnitude of the e-commerce market Algeria, Iraq, Jordan, Lebanon, Libya, Mauritania, Morocco, Syria, Tunisia, and Yemen received 1.6 billion US dollars in 2017, up from 1.1 billion US dollars in 2014. As internet availability and usage proliferate worldwide, the number of digital purchasers grows year after year. Over two billion individuals purchased products or services online in 2020, while global e-commerce sales exceeded 4.2 trillion US dollars in the same year.

Literature review
E-commerce
Previously, the term e-commerce was limited to the exchange of electronic data only, & the appearance of the Web predicted that this web-based trade would play an active role in the global economy.

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E-commerce literature has discovered that there are three procedures to achieve e-commerce. Some describe e-commerce as a success in Internet applications such as Digital Wallet. While others see it as a success in commercial operations like Communication between customers and suppliers, some are seen as a combination of Internet applications and commercial activities (Ahmad & Jameel, 2018) [3]. Alternatively, that e-commerce may be described by (Rotem-Mindali & Weltevreden, 2013) [89] because it significantly influences the economy by affecting company expenses and productivity. E-commerce also refers to large-scale commercial operations conducted through the Internet for items and services. According to (Hajli, Sims, & Shanmugam, 2014) [13], there was no standard definition of e-commerce in the literature. E-commerce includes scarring commercial transactions via computer networks like the Internet, which described e-commerce as sales transactions between organizations, businesses, & individuals via computer-mediated networks. Regarding buy & sell transactions, e-commerce is defined as buying, selling & trading of goods, services & information online using electronic & Communication technologies. Regarding the use of technology, e-commerce involves Communication, delivery & buy-sell of services, information & products over the computer network, including the Internet.

E-commerce can sell & purchase products & information via the Internet. E-commerce is changing the marketplace by transforming organizations' business models, through framing relations between market actors, & by contributing to modifications in market structure. (Vadwala & Vadwala, 2017) [99] also defined e-commerce as a modern business technique that addresses the requirements of business organizations, sellers & customers to decrease cost & increase the quality of items & services while raising the pace of delivery. Therefore, electronic commerce is provided a comprehensive competitive advantage by finding new customers, markets & suppliers. It is faster to move to the international market. E-commerce is cost-effective, advertising & marketing at less cost than traditional methods; in addition, e-commerce does not need a prominent physical location (A.L. Ahmed, 2018) [4].

E-commerce in Iraq
Iraq is a Western Asian country bordered by Turkey to the north, Iran to the east, Kuwait to the southeast, Saudi Arabia to the south, Jordan to the southwest, and Syria to the west. Baghdad, located in the country's center, is its biggest city by far and its capital (Statistics 2021).

Electronic commerce has become a necessary incentive and an essential pillar of the economy. Any civilized countries are based and contribute to providing new markets for the consumer different from the traditional commerce method. However, in terms of the country is still far from making the best use of technology for various reasons, including those related to technological infrastructure as well as a lack of trust and security in information technology applications in addition to economic and other political considerations, which requires rapid and effective action at all levels of government.

E-commerce in Iraq should boost the economy in the country, improve the quality of its goods and provide more efficient customer service. However, it may also build barriers that society will have to overcome through changed business practices; E-government initiatives should also make the government more effective and efficient and improve its relationship with the public and private sectors. E-commerce is also rapidly transforming government policies and improving online communication strategies to expand the economy, according to "Committed to connecting the world" (2020) Fig 1.

(Data Portal 2021)

Fig 1: Internet users in Iraq

- Iraq In January 2021, the population was 40.70 million. Between January 2020 and January 2021, the population rose by 932 thousand (+2.3 percent). Iraq has a female population of 49.4 percent and a male population of 50.6 percent [note: the United Nations does not publish data for genders other than 'female' and male']. In addition, 71.0 percent of the population of Iraq resides in urban regions, while 29.0 percent lives in rural areas. Fig 1 Internet users in Iraq.

- Iraq: Iraqi Internet users In January 2021, Iraq has a total of 30.52 million internet users. The number of internet users in Iraq increased by 699 thousand (+2.3 percent) between 2020 and 2021. As a result, Iraq has a 75.0 percent internet penetration rate as of January 2021. Before one year, in January 2020, there were 29.82 million Internet users. The number increased by

11 million (+55%) between 2019 and 2020, which will show in the previous years in Table 1.

▪ Iraq: Mobile phone connection In January 2021, Iraq had 40.01 million mobile connections. The usage of cellular connections in Iraq increased by 1.4 million (+3.6 percent) during January 2020 and January 2021. In January 2021, the total number of mobile connections in Iraq was 98.3 percent of the total population. In January 2020, there will be 39.00 million mobile connections. The number increased by 1.0 million (+2.6%) between 2019 and 2020, equivalent to 103%. As showing in Table 1.

▪ Iraq: Iraq has 25.00 million social media users in January 2021, according to social media data. The popularity of social media in Iraq increased by 4.0 million (+19%) between 2020 and 2021. In January 2021, social media users in Iraq accounted for 61.4 percent of the total population. 21.00 million were social media users in January 2020; Between April 2019 and January 2020, the number of media users rose by 1.9 million (+9.8 percent), with social media penetration in Iraq reaching 53% in January 2020 will show the previous years (2017, 2018) in Table 1.

Table 1: Internet users, social media and mobile connections in Iraq

Iraq	2017	2018	2019	2020	2021
Internet users in Iraq	16 million	17 million	18.70 million internet Users in Iraq 2019	29.82 million	30.52 million
Social media users in Iraq	16 million	17 million	19.00 million social media users in Iraq 2019	21.00 million	25.00 million
Mobile connections in Iraq	31 million	35 million	39.80 million mobile connections in Iraq 2019	40.89 million	41.50 million

(Data Portal 2021)

▪ Iraq: ATMs per 100,000 adults: For that indicator, we provide data for Iraq from 2008 to 2018. During that period, an average value for Iraq was 2.02 ATMs, 100,000 adults, with a minimum of 0.7 ATMs, 100,000 adults in 2008, and a maximum of 3.95 ATMs per 100,000 adults in 2018. The latest value from 2018 is 3.95 ATMs per 100,000 adults. For comparison, the world average in 2018 based on 145 countries is 56.11 ATMs per 100,000 adults. Check out the worldwide rankings for that metric, or use the country comparator to examine changes over time.

▪ Iraq: GDP per capita, Purchasing Power Parity: For that indicator, we provide data for Iraq from 1990 to 2018. During that period, the average value for Iraq was 11305.22 U.S. dollars with a minimum of 4045.04 U.S.

dollars in 1991 and a maximum of 16751.42 U.S. dollars in 2016. The latest value from 2018 in 15471.25 U.S. dollars. In contrast, the global average in 2018 is 19343.38 US dollars based on 181 nations. Check out the worldwide rankings for that metric, or use the country comparator to examine changes over time. The graph depicts Iraq's gross domestic product (GDP) from 2006 through 2020, with forecasts until 2026. The aggregate value of all services and products generated inside a country in any given year is referred to as a gross domestic product. As a result, GDP is an essential indication of a country's economic might. For example, Iraq's GDP was estimated to be at 172.12 billion U.S. dollars in 2020.
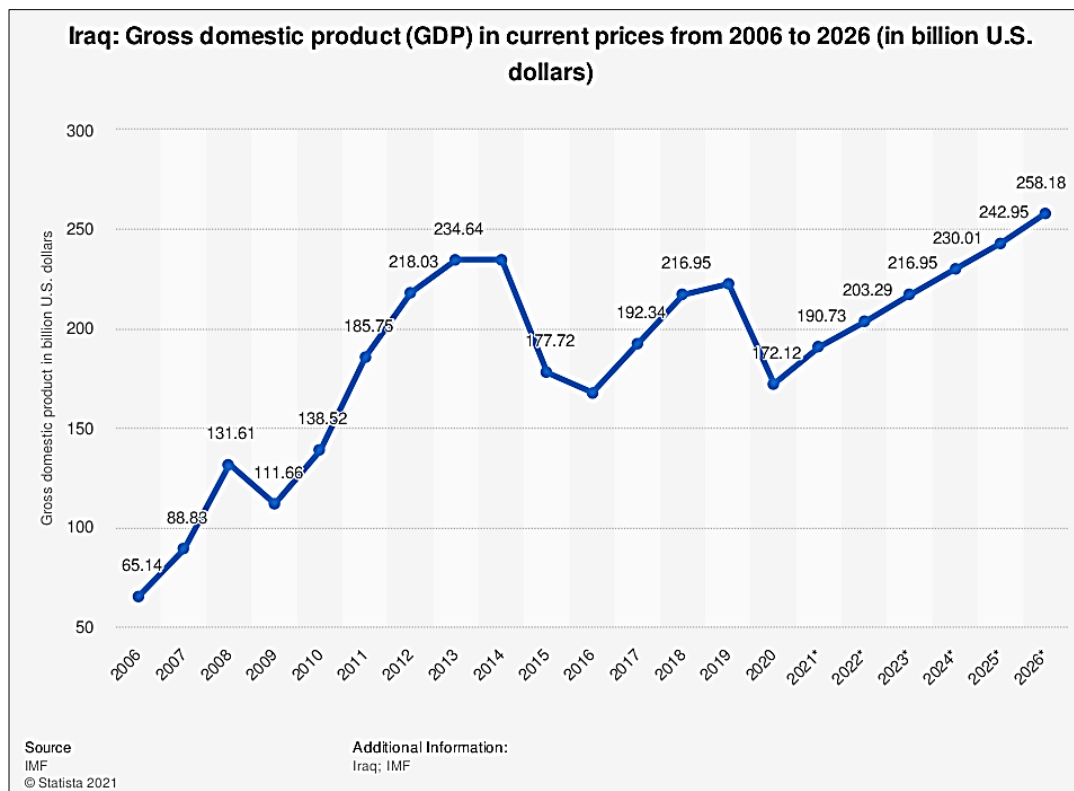

Fig 2: Gross domestic product (GDP) in Iraq from 2006 to 2020

- Iraq: The graph depicts Iraq's budget balance in GDP between 2016 and 2020, with estimates through 2026. A positive value denotes a fiscal surplus, whereas a negative value denotes a trade deficit. Iraq's trade deficit was estimated to be about 19.78 percent of GDP in 2020. Fig 3.
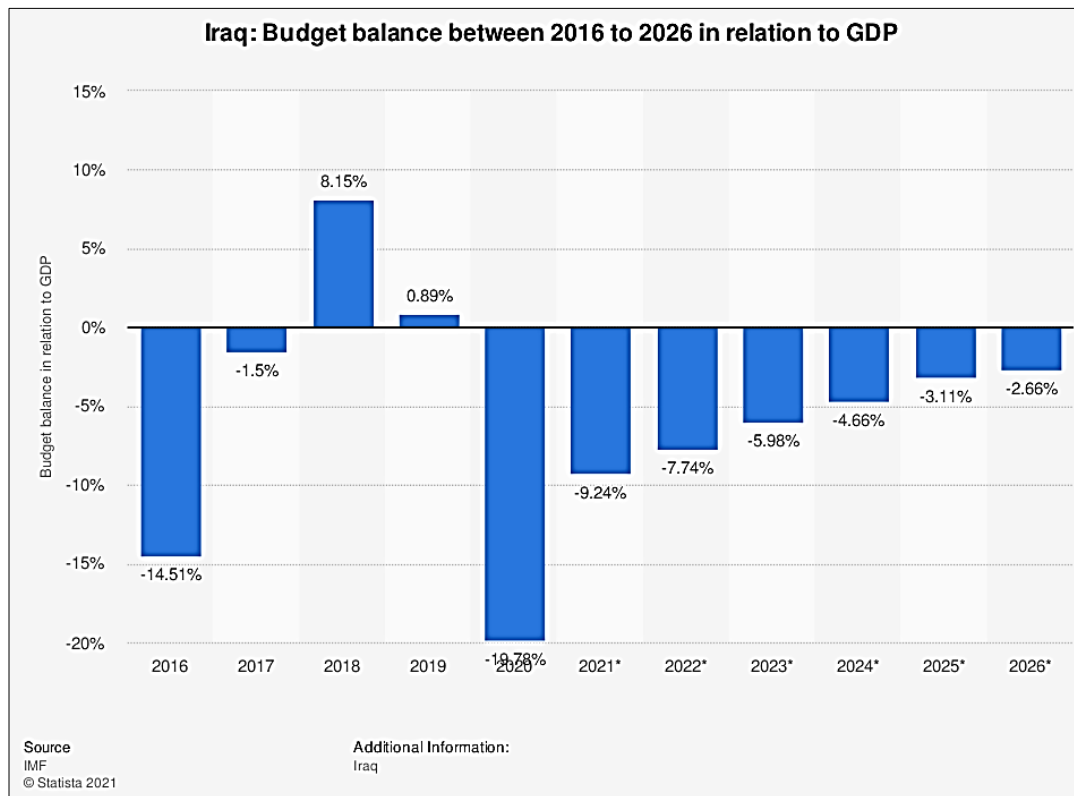

Fig 3: Iraq's budget balance concerning GDP 2026

The internet usage in middle east and north Africa countries (MENA) consist of (Algeria, Bahrain, Egypt, Iran, Iraq, Palestine, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Israel, Syria, Tunisia, United Arab Emirates, and Yemen).

The total number of internet users globally in 2018 was 3.9 billion. The Middle East has 164 million users, while North Africa had 121 million. The Gulf Cooperation Council has the most significant internet penetration rate of any the Middle East and North African sub-region. For example, in 2018, the UAE had a penetration rate of 91 percent, Saudi Arabia had a rate of 73 percent, and Iraq had a rate of 65 percent. In comparison, Egypt, the top country in North Africa at the time, had a penetration rate of 43 percent.

In opposition to 2011, mobile devices are now preferred by most internet users over desktop P.C.s. Global per capita mobile internet usage in 2019 was 132 minutes, compared to 49 minutes on a desktop computer. During the same period, per capita, internet usage in the Middle East and North Africa was around 175 minutes per day on a desktop.

Egyptians spend 490 minutes a day on average on the Internet, compared to 496 minutes in the UAE and 405 minutes in Saudi Arabia. Except in South America, males spend more time online than women. The Arab states adhere to the global standard. Where males account for 48% of internet users and women, account for 39%.

Mobile devices are the most common way for people in the Middle East and North Africa to connect to the Internet. According to the Iraqi example, the penetration rate of mobile Internet in Iraqi families is around 90%, compared to 24.3 percent of Iraqi households with a fixed broadband connection.

The proportion of mobile internet users per population in the UAE was 96 percent, compared to 88 percent in Saudi Arabia. Egypt's rate at the same period was 47 percent.

Table 2 will show all the MENA countries with the population number, Internet users, social media, and Mobile users in 2021. Iraq becomes the fifth in the internet users after Egypt, Iran, Turkey, Saudi Arabia, with 30.52 million users.

Table 2: MENA countries population, internet users, social media, mobile users 2021

Country	Population	Internet user	Social media	Mobil users
Iraq	40.70 million	30.52 million	25.00 million	40.01 million
Syria	17.88 million	8.41 million		14.24 million
Yemen	30.16 million	8.06 million	3.20 million	18.21 million
Kuwait	4.30 million	4.26 million	4.25 million	6.94 million
Jordan	10.42 million	6.84 million	6.30 million	8.01 million
Saudi Arabia	35.08 million	33.58 million	27.80 million	39.53 million
UAE	9.94 million	9.84 million	9.84 million	17.06 million
Sudan	44.3 million	13.7 million		33.7 million
Bahrain	1.72 million	1.71 million	1.50 million	2.22 million

Israel	8.72 million	7.86 million	6.81 million	10.20 million
Iran	84.51 million	59.16 million	36.00 million	131.00 million
Palestine	5.20 million	3.25 million	2.70 million	4.33 million
Algeria	44 million	26.3 million	25 million	46.8 million
Turkey	84.69 million	65.80 million	60 million	76.89 million
Oman	5.16 million	4.92 million	4.14 million	5.72 million
Qatar	2.91 million	2.88 million	2.87 million	4.67 million
Tunisia	11.88 million	7.92 million	8.20 million	17.84 million
Libya	6.91 million	3.19 million	6.00 million	11.62 million
Egypt	103.3 million	59.19 million		
Total	449	299	-	-

Factors related to online purchase
Several factors may affect online purchase intention in e-commerce. Attitude, perceived ease of use, & usefulness are from TAM. Perceived trust & perceived security are two main factors that affect intentions. Other factors such as behavioral control, self-efficacy, familiarity, & benefits also influence them. Ease of use plays a significant role in accepting new technology.

Trust is an essential factor that will determine the success or failure of many companies in the e-commerce area. Consumers prefer sellers to entertain their interests, be authentic in their transactions, & can deliver ordered goods. Perceived security is the degree to which a person feels that an online vendor or website is safe. It is critical in transmitting sensitive information such as credit card information. The perception of security is one of the most critical challenges in the acceptance & adoption of online purchasing.

The study builds upon the extended theory of acceptance & use of technology (UTAUT2). It evaluated the influence of service quality, customer perceived value, and customer satisfaction on customer loyalty. However, Product type can impact the link between perceived risk & purchase intention in digital products. Gender variations not considering product type impact are substantial in connections between effort expectation and purchase intention. The study found that customers with a high perceived value have a stronger relationship between satisfaction & customer loyalty than those with a low perceived value. Based on empirical findings, the authors offer managerial suggestions for enhancing online shopping-to-buying conversion rates.

Attitude
Fishben & Ajzen (1975) define Attitude toward behaviour as a person's evaluation of a specified behaviour involving an object or an outcome. It is considered the most significant construct in influencing behavioural intention & decision making (Pham et al., 2020) [84] & is identified as a cause of intention. Davis (1989) mentions Attitude toward a system as a significant determinant factor for understanding whether the user will use or reject the system. In the context of online shopping, an attitude refers to a consumer's psychological state in any Internet purchase decision & is an essential factor affecting consumer behaviour intentions in online purchasing (Wu, 2003) [102]. A study by (Fan et al., 2018) [48] noted that consumers with a positive attitude towards online purchasing would have a higher intention of doing so. Notably, the more positive consumers' attitudes are towards online shopping, the higher the intention that they will engage in it. Therefore, scholars have emphasized understanding user expectations & how they feel about online purchasing (Akram & Kortam, 2020; Broekhuizen & Huizingh, 2009) [27, 40].

Perceived usefulness
According to the TAM, perceived usefulness is the degree to which people believe that using a particular system would enhance their job performance. Davis (1989) defined perceived usefulness as the individual's perception that using the new technology will enhance or improve performance. According to (S. Kim et al., 2003) [42], every shopping website that can provide better shopping decisions is perceived as valuable. In a similar study by Bisdee (2007), it is mentioned that online shopping websites that can provide useful services & information for online customers, which traditional shopping cannot provide, will be perceived as being useful by the consumers. The importance of perceived usefulness is supported by other studies such as by (Bendary & Al-Sahouly, 2018; Choi et al., 2003; Ha & Stoel, 2009; Renny, 2013; Riyadh et al., 2020; Salisbury et al., 2001) [38, 42, 52, 87, 88, 91]. Their findings suggest that consumers have more positive attitudes toward online purchasing when online vendors can enhance their ability & usefulness.

Perceived ease of use
According to the TAM, perceived ease of use plays a significant role in accepting new technology. Jones & Hubona (2005) define the ease of using technology as the ease of learning & becoming professional in using that technology. It can be a new technology & interface on online websites. Another work by Selamat et al. (2009) adds that users accept technologies that are easier to use, whereas the technologies that are perceived as more complex are not readily acceptable. The concept of ease of use & its importance in online purchase intention is supported by (Bendary & Al-Sahouly, 2018; Hartono et al., 2013; Renny, 2013; Thabit et al., 2016) [38, 55, 87, 97] who conclude that a system that is easy to use often needs less work on the part of users & increases their intention to use online technology for shopping.

Perceived trust
(Mayer et al., 1995) [78] Provide the most often referenced definition of trust, which links it to a desire to be vulnerable. Another definition of trust in online buying is consumers' readiness to tolerate the potential of loss throughout the Internet shopping process. It is founded on the assumption that online suppliers will deliver on their intentions (Gefen et al., 2000) [50]. This study includes trust as a behavioural intention essential in online buyer-online seller interactions and online purchase objectives in electronic commerce (Faqih, 2013) [49]. In the perspective of e-commerce, trust includes the online consumers' principles & expectations about trust-related features of the online seller (Sullivan & Kim, 2018) [94]. Consumers prefer sellers to entertain their interests, be authentic in their transactions, & can deliver

ordered goods. (Grabosky, 2001) [51] Identify trust as the most significant long-term barrier for understanding the potential of e-commerce to consumers in the online environment. Trust is identified as an essential factor that will determine the success or failure of many companies in the e-commerce area (Bart *et al*., 2005) [36]. Studies on trust have found it an influential factor in attitudes & risks & that these two significantly affect the willingness to buy online (Basak *et al*., 2016; Hsiao *et al*., 2010; Jarvenpaa & Teigland, 2017; D.J. Kim & Ferrin, 2008) [37, 58, 63, 68]. They also mention that a lack of trust generates a negative impact on attitudes toward online shopping. In a recent study by (Hsu *et al*., 2014) [59], trust in Attitude & risk is also seen in online purchasing environments. A lack of trust is a barrier that deters consumers from online shopping activities. The importance of trust as a factor in the effectiveness of online purchase intentions has been tested in studies by (Akram & Kortam, 2020; Broekhuizen & Huizingh, 2009; Lee & Huddleston, 2010; Rehman *et al*., 2019) [27, 40, 75, 86].

Perceived security
Perceived security is described as the degree to which a person feels that an online vendor or website is safe. It is critical in transmitting sensitive information such as credit card information (M.A. Ali *et al*., 2017; Salisbury *et al*., 2001) [32, 91]. It is described as the consumers' impression of security dangers and control over personal information online context (Lallmahamood, 2007) [74]. It is the feeling or belief of e-commerce customers that causes them to feel safe against any threats when conducting online activities. In contrast, threats make users feel that their private information is un-secure (such as fear of losing a credit card or social security number). The perception of security is classified into objective & subjective security issues (Normalini *et al*., 2019) [80]. The earlier refers to measures such as a security policy statement & technical protection, while the latter refers to the overall perceived security. (Normalini *et al*., 2019) [80] emphasizes that the Internet does not have an atmosphere for secure online shopping &, so security must be utilized & measured by online websites to shield customer data. The main target of attackers is Online websites ((Normalini *et al*., 2019) [80]. The perception of security is one of the most critical challenges in the acceptance & adoption of online purchasing. It is known as an essential requirement in engaging in every online transaction, & researchers are agreed that security is not only a technology challenge but also involves human & organizational aspects.
According to (Salisbury *et al*., 2001) [91], perception of security is an essential factor that affects the intention to engage in online purchasing. In the Iraqi context, Lallmahamood supports another study. In contrast, another study by (Hartono *et al*., 2013) [55] notes that the effect of perceived security on online purchase intention is approved through a direct influence & by the mediation of Attitude. (Yulihasri, 2011) [103] found that security is an essential factor that impacts the Attitude toward such purchase intentions. To establish a successful online shopping website, e-commerce firms should ensure a high level of security to convince consumers & to meet their expectations. It means that even with the best technical systems & solutions put in place by a company, ignoring the website security perceptions of customers would negate the online purchase process.

A previous study on online purchase
Escobar-Rodríguez & Carvajal-Trujillo, (2014) [47] examines determinants of purchasing flights from low-cost carrier (LCC) websites. In doing so, an extended unified theory of acceptance & use of technology (UTAUT) model is proposed building on earlier work by Venkatesh & Zhang (2010) [101]. The results, derived from a sample of 1096 Spanish consumers of LCC flights, indicate that critical determinants of purchasing are trust, habit, cost-saving, ease of use, performance & expended effort, hedonic motivation & social factors. Of these variables, online purchase intentions, habit & ease of use are the most important. (Pascual-Miguel *et al*., 2015) [83] examine gender differences in the online purchasing behavior of consumers who purchase digital & non-digital goods. The study model builds upon the extended unified theory of acceptance & use of technology (UTAUT2), adding two key e-commerce variables: perceived risk & trust. The empirical analysis uses data from 817 consumers' responses to an online questionnaire. Gender differences not considering product type effect are significant in relationships between effort expectancy & purchase intention & between social influence & purchase intention. Product type can affect the relationship between perceived risk & purchase intention in digital goods, where the influence is significantly more substantial for women. However, it dramatically affects gender differences that do not appear for purchase intention in non-digital goods. Product type significantly affects the relationship between performance expectancy & purchase intention & between facilitating conditions & purchase intention. Product type significantly influences the relationship between perceived risk & purchase intention for women but not for men. (Bessi & Ferrara, 2016) [39] analyzed the factors influencing online shopping intention for fresh agricultural products; this paper constructs a UTAUT2 model. Data obtained from questionnaires are processed using a structural equation model. The results show that performance expectancy, effort expectancy, hedonic motivation, and facilitating conditions impact the online shopping intention for fresh agricultural products; gender significantly influence the measuring model, while neither experience nor personal innovativeness influences the measuring model.
Amblee & Bui (2011) [33] Stated that Social commerce had taken the e-tailing world by storm. Business-to-consumer sites &, more critical, intermediaries that facilitate the shopping experience continue to offer more & more innovative technologies to support social interaction among Such as community members or friends who share the same shopping interests. Among these technologies, reviews, ratings, & recommendation systems have become some of the most popular social shopping platforms due to their ease of use & simplicity in sharing buying experience & aggregating evaluations. This article investigates the impact of electronic word of mouth (eWOM) Communication among a small group of book readers. We investigated the entire market for Amazon Shorts e-books, which are digital micro products sold at a low and consistent price. With price playing a minor part in the purchasing decision, social conversation via eWOM becomes a collective signal of reputation and eventually a substantial dem & driver. According to our research findings, eWOM may be utilized to transmit the reputation product, the reputation of the br &, and the reputation supplementary items. Until newer social

purchasing technologies acquire adoption, eWOM technologies should be regarded as the initial and primary source of the social buying experience by e-tailers and customers. (Close & Kukar-Kinney, 2010) [44]. The authors study customers' reasons for adding goods to an online shopping cart without purchasing, a practice known as virtual cart usage. While merchants provide virtual carts as a suitable holding place for planned online purchases, this study, based on a nationwide online sample, indicates additional significant utilitarian benefits & hedonic motivations that explain consumers' online cart use frequency. Beyond current purchase intentions, the investigated reasons consumers place items in their carts include: securing online price promotions, obtaining more information on specific products, organizing shopping items, & entertainment. Based on empirical findings, the authors offer managerial suggestions for enhancing online shopping-to-buying conversion rates. (Chang & Wang, 2011) [41]. The effect of service quality, customer perceived value, and customer satisfaction on customer loyalty in an online purchasing environment were investigated. In this study, two studies were conducted. Study 1 validated the automated processes; Study 2 tested the moderating effects of customer perceived value between satisfaction & loyalty. Structural equation modeling techniques & linear hierarchical regression models were used to test the causal model. The study demonstrated that e-service quality & customer perceived value influence customer satisfaction & then influence customer loyalty. In addition, this study found that customers with a high perceived value have a stronger relationship between satisfaction & customer loyalty than customers with a low perceived value. We found that there are emotional & rational routes influencing customer loyalty in the online shopping process to contribute to other research that clarifies the influencing process of online shoppers' motivation & behavior. During the pre-purchase stage, online businesses should concentrate on enticing customers by the quality of their service. Online sellers should consider emotional elements such as consumer pleasure throughout the buying stage. Rational variables, such as consumer perceived value, play critical roles in the post purchase period because they can improve the link between satisfaction and loyalty. The purchase process was considered a separate stage in this study since customers may pick any purchasing phases. Furthermore, this study discovered a technique to investigate the link between customer happiness and loyalty by investigating the moderating effects of customer perceived value.

Koo & Ju (2010) [71] said that since the importance of online businesses has grown, numerous research has concentrated on expanding our knowledge linked to practical, functional features that increase ease of use and usefulness. More recent research has concentrated on determining the impact of hedonic features of online store settings, such as web atmospherics, on customers' emotional responses. On the other hand, previous research has been relatively weak in exploring many components of online consumer characteristics, which may affect customer assessment of ambient cues. Thus, research tradition builds, the present study addresses two critical issues. Additionally, the model hypothesizes that perceptual curiosity (P.C.) moderates the relationships between atmospheric cues & shoppers' emotional reactions. The structural equation model revealed that online atmospherics such as images, colors, and connections influence consumer emotions such as pleasure and arousal, both of which influence intention. Perceptual curiosity has also been shown to have a moderating impact. The conclusion discusses theoretical and practical consequences, limits, and future research prospects.

Karimi *et al*. (2012) [66] analyzed factors affecting consumers' online shopping behavior that might be one of the most critical issues of the e-commerce & marketing field. However, there is minimal knowledge about online consumer behavior because it is a complicated socio-technical phenomenon & involves too many factors. One of the objectives of this study is to cover the shortcomings of previous studies that did not examine the main factors that influence online shopping behavior. A new study has examined the impact of perceived risks, infrastructural variables & return policy on Attitude toward online shopping behaviour and subjective norms. It looked at the effect of online shopping behaviour on customer satisfaction. Two hundred questionnaires were dispersed among online stores in Iran. Respondents to the questionnaire were consumers of online stores in Iran, which randomly selected. Finally, regression analysis was used on data to test hypothesizes of the study. This study can be considered applied research from a purpose perspective & descriptive survey regarding nature & method (type of correlation). The study identified that financial risks & non-delivery risks negatively affected the Attitude toward online shopping. Results also indicated that domain-specific innovativeness & subjective norms positively affect online shopping behavior. Furthermore, Attitude toward online shopping positively affected the online shopping behavior of consumers.

Hasan (2010) [56]. While Attitude and gender are crucial elements that influence online purchasing behavior, online shopping attitude is still a poorly understood term. Furthermore, very little, if any, research has specifically addressed gender variations in online buying attitudes. They were instead treating Attitude as a multifaceted term with cognitive, emotional, and behavioral components. The findings of empirical testing show that there are three different components of internet purchasing attitude and substantial gender variations in all three attitudinal components. The findings also reveal that the most significant gender difference is in cognitive Attitude. Females are more cognitive than males value the utility of online shopping less than their male counterparts do.

Luo *et al*. (2020) [77]. Stated that Electronic commerce has been overgrown in recent years. However, polls of internet buyers show that many are still dissatisfied with their online purchasing experiences. More study is needed to understand better what factors influence customers' ratings of their online experiences. This study explores the relevance of product uncertainty and merchant visibility in customers' online purchase choices using an extensive dataset obtained from two online websites. As well as the mitigating effects of retailer characteristics, we find that high product uncertainty & low retailer harm customer satisfaction. However, a retailer's service quality, website design, & pricing play essential roles in mitigating the negative impact of high product uncertainty & low retailer visibility. Specifically, service quality can mitigate the negative impacts of low retailer visibility & high product uncertainty in online markets. On the other h&, website design helps to

reduce the impact of product uncertainty when experience goods are involved.

Clemons *et al*. (2016) [43]. It has been stated that trust underpins much of internet buying behavior. We compare trust in online purchasing in four countries: (1) the United States, which has a mature online industry; (2) Germany; (3) China, which has the fastest expanding online market but is plagued by counterfeits, forgeries, and damaged or faulty products; and (4) Singapore. In each of the four countries, we conducted laboratory experiments. A survey of over people was conducted to determine their perceptions of risk associated with various therapies from various vendors. The influence of therapy and vendor reputations on customer trust differs across nations in unexpected ways. We used three new treatments: no assurances, product quality, authenticity assurance, and third-party assurances. Internet shopping tends to be viewed as merely another purchase in established online marketplaces such as the United States. Despite Chinese purchasing issues, if an online vendor can build a reputation for excellence, buyers appear to respect such merchants similarly to how Americans treat their favorite online sellers.

Lian & Yen (2014) [76]. Stated that the use of the Internet by older adults is growing at a substantial rate. As a result, they are growing in importance as a potential market for internet commerce. On the other hand, prior academics and practitioners have focused mainly on the younger market, paying little attention to concerns about older clients' online behaviors. This study will increase our understanding of the factors that impact older customers' propensity to make online purchases. This study accomplishes this goal by combining the Unified Hypothesis of Acceptance and Use of Technology (UTAUT) with innovation resistance theory. By comparing younger and older customers on a gender basis, the findings show that the primary variables moving older individuals into online purchasing are performance expectations and social influence, similar to those driving younger consumers. On the other hand, the primary hurdles for older adults are value, risk, and tradition, distinct from those for younger adults. As a result, it is noteworthy that older individuals exhibit no gender differences in drivers and obstacles.

Hasan (2016) [57] stated that Perceived irritation had shown adverse effects on various aspects of consumer shopping behavior. However, with the massive growth of online shopping in recent years, relatively little study has been conducted to investigate perceived customer annoyance or its causes in online shopping settings. This study seeks to address this void by investigating the impact of aesthetic, navigational, and informative website design features on customers' reported annoyance during online buying activities. According to the data obtained from online consumers, the three website design features had a substantial negative influence on felt annoyance in the online buying environment. These findings have important implications for website designers and online retailers who want to create and maintain appealing websites that reduce customer annoyance.

P. G. Pappas *et al*. (2016) [81] use complexity theory to explain & better understand & the causal patterns of factors stimulating online shopping behavior in personalized e-commerce environments. To this end, it identifies cognitive & affective perceptions as essential factors in online shopping behavior & proposes a conceptual model along with research propositions. To test its propositions, it employs fuzzy-set qualitative comparative analysis (fsQCA) on a sample of 582 experienced online shoppers. Findings indicate nine configurations of cognitive & affective perceptions that explain high intention to purchase. Thus, this study contributes to the literature 1) by offering new insights into the relationship among the predictors of online shopping behavior & 2) advancing the theoretical ground of how customers' cognitive & affective perceptions combine to explain high purchase intentions better. Furthermore, the findings support the need for online shopping environments to be more interactive to target customers' cognitive & affective perceptions & increase their intention to purchase.

Pappas (2016) [81] examines purchase behavior in personalized online shopping by employing complexity theory, based on customers' online shopping experience & online shopping motivations. Along with research proposals, a conceptual model is proposed. The study hypotheses are confirmed by a survey of 401 customers' online purchasing experiences using the data analysis tool fsQCA (fuzzy-set Qualitative Comparative Analysis). The findings reveal that there are nine combinations of online shopping experiences and motives for online buying that correlate to higher purchase intentions. This study goes beyond the literature on online shopping and the theoretical underpinning of how customers' online shopping experiences interact with their online buying motives to predict and explain higher purchase intentions. The findings have implications for both researchers & online merchants for the development of new ideas for tailored e-commerce & the provision of customized services.

Kuoppamäki *et al*. (2017) [72]. Although it has been said that older people are becoming a significant market group for all internet-based services, few studies too far have taken older adults into account as online consumers and users of entertainment media. This study looks at how customers aged 55 to 74 utilize mobile technology for online shopping and leisure. A web-based survey was used to collect the data, which was completed by a panel of respondents representing Finnish television viewers (N = 322). According to the findings, people aged 55 to 74 use smartphones or tablets to purchase items or services online just as frequently as younger customers. In contrast, listening to the internet radio & watching videos or programs online with a smartphone or tablet is most typical for younger male consumers. The results demonstrate that mobile-based online shopping is best predicted by age, higher education, & household type (children living at home), & use of entertainment media by age & gender.

Komodromos *et al*. (2018) [70]. It has been stated that the use of internet-based technologies, particularly social networking sites such as Facebook and Twitter as commercial platforms, may be an integral approach in increasing the reach and operational efficiency of an online retail shop. This study uses a qualitative approach with 20 in-depth interviews to investigate the factors/strategies that impact students' acceptance of e-commerce. The study aimed to evaluate students' opinions of e-shopping via the social media fan sites of Konga and Jumia online stores and their perceptions of the effect of online marketing techniques on e-shopping acceptability of Konga and Jumia online stores. The results highlight students' perceptions of e-shopping via the social pages & they find the e-shopping experience very interesting & fun. The most important

motivating factor influencing online shopping in Konga & Jumia online stores is the marketing strategies that companies use & convenience, followed by time saving & price for consumers.

Arora & Rahul (2018) [35] examine the critical components of perceived risk (security risk, privacy risk, product risk & non-delivery risk) in e-commerce & the impact of perceived risk on online shopping attitudes among online women shoppers in India. It proposes a model explaining how perceived risk in online shopping impacts attitude & what is the impact of online shopping attitude on online shopping intention. A sample size of 508 women shoppers was considered in the study & the technique of Structural equation modeling was employed. An online questionnaire was administered to internet users who had prior online shopping experiences. The study constructs, validity, and composite reliability were all evaluated using confirmatory factor analysis. The study's findings show that perceived danger is not a critical factor influencing the attitudes of women buyers in India. Out of the many categories of hazards evaluated in the study, security risk was moderately significant.

Related on online purchase intention in Iraq
MASERATI, as the first Internet Service Provider (ISP) in Iraq, started in 1992. The presence of TM Net in 1995 slowly changed the shopping behaviour from traditional shop to online. As a result, between 2020 and 2021, the number of internet users in Iraq rose by 699 thousand (+2.3 percent). In January 2021, Iraq has a 75.0 percent internet penetration rate.

Because of the fast rise of Internet usage, Iraqi consumers may now buy items or services from online stores and search for product information on the Internet. (Thabit & Jasim, 2019) [97]. Furthermore, the growing usage of smartphones and mobile Internet services has contributed considerably to the rise of online buying. As a result, consumers are becoming more informed about online purchasing, creating new difficulties and possibilities for online sellers to attract more online customers. (Kalinić et al., 2016) [64].

Various studies have been conducted to identify the factors impacting online purchasing intentions in Iraq, such as that by (Kapoor & Dwivedi, 2020) [65], which explore the issue of acceptance of internet shopping behaviour and associated factors.

The characteristics of online shopping in Iraq have been studied by (Ameen et al., 2019) [34], who indicated that university degree holders and credit cards. Owners have a higher propensity for shopping online. Their studies show that more than 60% of online users in Iraq are in the non-online shoppers' group, and trust is the primary concern of online customers. The impact of ease of use and usefulness in online shopping is approved by (Hussein et al., 2020) [60], who found the mediation effects of perceived ease in the relationship of online customer support and online purchase intention (Talim et al., 2021) [96]. In another study by (Ali 2020) [31], the customers with a positive experience in online shopping have more substantial confidence in their next online purchasing. In another study by (Yaakop et al., 2021), utilitarian and hedonic orientations, perceived benefits, and demographic characteristics (gender, age, and income) significantly and positively correlated with the Attitude towards online shopping.

The security issue is considered in a study by (Al-Najjar & Jawad, 2016) [16], which proposed a model for exploring the impact of perceived security and privacy on consumers' intention to use online banking. According to this model, perceived ease of use, usefulness, and perceived security affect such decisions. In another study by (Ameen et al., 2019) [34] identified and tested factors such as usefulness, ease of use, compatibility, and security, which were essential predictors of Attitude toward online purchasing. In addition, they found that Attitude toward online shopping was the factor that directly affects online purchasing intentions. Finally, in a study by (Khatab et al., 2019) [67], perceived security is identified as the primary concern of Iraqi online users.

In addition, some studies have mentioned trust in online purchase intentions. For example, (Kwek et al., 2010) [73] identified shopping orientation, online trust, and prior online experience as factors influencing online purchase intention. In addition, identifying influencing factors on trust in online purchasing is studied by (Morwitz 2014) [79].

Table 3: Some studies have mentioned trust in online purchase intentions

No.	Year	Sample	Finding	Method	model	factors		Author
1	2020	sample of 90 Spanish instructors, s	Ease of use and usefulness has a significant effect on the intention	mixed-method	TAM And ISSM	System quality, Service quality, Information quality Perceived ease of use Perceived usefulness	IRAQ	(Hussein et al., 2020) [60]
2	2016	sample of 136 university students	perceived privacy is the most critical variable	quantitative	(UTAUT)	Perceived cost, Perceived security, Perceived usefulness, Perceived quality, Perceived privacy,	BAGHDAD	(Al-Najjar & Jawad, 2016) [16]
3	2021	consists of 300 respondents	all the independent variables significantly influenced customer purchase intention	quantitative	TAM	Social media marketing Perceived usefulness Perceived ease of use Attitude	IRAQ	(Abdullah et al., 2021) [21]
4	2019	370	focused on the lack of application of e-marketing technology on the website of the Iraqi	Quantitative	TRA		IRAQ	(Al Chalabi, 2019) [30]
5	2021	350 data	a positive relationship between perceived technology and online	quantitative	TAM	Online shopping, Perceived risk, Perceived Technology, Trust,	IRAQ	(S.Y. Ahmed et al., 2021)

			trust				Purchase intentions	[24]
6	2018	300 university students in Iraq.	Suggest that (PU), (PEOU), (SNs), I (IQ), (SQ), (TS) (SE) (BI). have significant direct effects on the actual use (AU)	quantitative	TAM UTAUT		Perceived usefulness (PU) Perceived ease of use (PEOU) Subjective norms (SNS) Self-efficacy (SE) Technical support (TS) Information quality (IQ) System quality (SQ) Behavioural intention (BI)	IRAQ	(Ameen et al., 2019) [34]
7	2021	628 data have been collected	significant and positive impact on the purchase intention of customers	Quantitative			Product quality, Safety, Purchase intention, price	Sulaymaniyah	(Talim et al., 2021) [96]
8	2016	120 respondents.	encourage government, organizations, and people to take advantage of e-commerce		information technology culture conflict,		E-commerce in KRG E-Commerce Mobile money information security rules and regulations of E-commerce.	Kurdistan of Iraq	(Jaffar et al., 2016) [61]
9	2018	It was distributed to 143 SME managers in Erbil.	To find the factors that affect the adoption of e-commerce by SMEs in Erbil	quantitative			Ease of Use, The willingness of Manager, Customer Need, Cost	Erbil state in Iraq	(Jameel & Ahmad, 2018) [3]
10	2019	sample of 700 public universities employees in Iraq	this study discussed a few antecedents of eG and neglected a lot of them, such as the motivations, trust, service quality, website features	quantitative	UTAUT		performance expectancy (PE), effort expectancy (EE), social influence (SI), facilitating conditions (FC), Usage Behaviour Usage Intention	IRAQ	(Al-Swidi & Faaeq, 2019) [29]
11	2016	50 sample of questionnaires to managers and owners in 20 SMEs in Iraq	Many factors affect the adoption of e-commerce in Iraq				Perceived Benefits Compatibility Cost Technology Readiness Firm Size Customers/Suppliers Pressure, Competitor Pressure External Support Innovativeness IT Ability IT Experience	IRAQ	(Thabit et al., 2016) [98]
12	2021	100 young girls Komar University of Science and technology	factors affecting young girls in their online shopping	Quantitative			Consumer behaviour is affected by four categories of factors: cultural factors, social factors, personal factors, and psychological factors	Sulaymaniyah city in Iraq	(Akoi et al., 2021) [26]
13	2020	177 participants	the positive influence of viral marketing in general on consumer purchase intention	quantitative	TRA		Consumer Purchase Intention Viral Advertising E-Wom	IRAQ	(Sawaftah et al., 2020) [92]
14	2021	468 employees working in this IT industry					Cyber security	IRAQ	

Discussion

Can justify this study is significant in terms of theoretical, methodological, and practical implications. The primary relevance of this study is the examination of a suggested conceptual model based on characteristics that influence online purchasing intentions, with an emphasis on perceived trust and perceived security, as well as Attitude. A study of the literature reveals an absence of comprehensive research that deals directly with Attitude, perceived trust, and perceived security in online purchase intentions in a single model. Although several studies have assessed them in online shopping, such as (Demir et al., 2021) [46], one of the contributions of this study is testing perceived trust from Iraqi internet shopping. On the other hand, the available literature reveals a scarcity of research relating to assessing perceived security for online purchases. The Technology Acceptance Model (TAM) is the foundation theory upon which the suggested model for this study is based. Researchers in online purchase investigations most commonly utilize TAM. Such as (Dastane, 2020; Tahir & Arije, 2021; Van der Heijden et al., 2003; Zhang et al., 2019) [45, 95, 100, 104]. Salim Abdulrahman (2019) [90] used TAM to explain Internet shopping among the Iraqi public, and they argued that TAM would yield different results for

users of online banking & non-users. This study examines factors of TAM in a conceptual model for Iraqi online customers such as Attitude, perceived ease of use & usefulness. The effects of TAM factors & perceived trust & perceived security on online purchase intention are tested in the proposed conceptual model. At the same time, it evaluates perceived trust & also perceived security. From the methodological contribution aspect, this study focuses on quantitative analysis. However, there is a lack of quantitative study on online purchase intention studies by considering perceived trust & perceived security & Attitude. Previous quantitative researchers such as (Haque *et al*., 2006; Harn *et al*., 2006) [53, 54] only considered small sample sizes in considering perceived trust only there is a shortage of quantitative methods for assessing perceived security. As a result, this study focuses on quantitative analysis to assess perceived trust and perceived security in an online purchase environment and from the client's perspective. This study conducts an academic evaluation to identify elements that influence customers' perceptions of trust and security throughout the online purchase process. As a practical contribution, this study provides valuable information on perceived trust and perceived security for online customers to improve their online purchasing knowledge. On the other hand, online vendors and enterprises may use the findings of this study to improve the trustworthiness and security of their websites and examine their customers' attitudes regarding online shopping. Furthermore, the study's findings may be helpful to the Iraqi government, particularly the Communications and Multimedia Commission of Iraq (CMC), which executes and promotes national policy objectives in the communications and multimedia sector. In this research, rules for the communications and multimedia industries can also be developed and implemented. This research of perceived trust and security in Iraqi society can support and promote the growth of consumer online shopping arrangements in Iraq.

Conclusion
In this study, e-commerce frameworks for SMEs in developing countries and Iraq have been discussed briefly. A review of these studies showed that the SMEs in Iraq need continued attention to get government support. Iraqi SMEs services have limited developed over the latest years in the different levels of field & w-commerce services: tertiary, secondary & even the primary level, and measuring the practicality of the existing approach. The findings indicate that interventions & programs designed to increase e-commerce adoption need to focus on the practice level. Because that is decision making regarding adoption occurs, in addition, to help I.T. managers within SMEs to change their workflow to obtain the most services, along with addressing privacy concerns & explicitly acknowledging. Additionally, the study will suggest various SME settings to ensure higher generalizability associated with the outcomes. All of these findings may be particularly pertinent and timely for decision-makers confronted with the challenge of e-commerce adoption in the Iraqi SME environment. This study's limitations include a single-source bias, as the collection of information was from secondary sources only. Also, the study has more of a judgmental conclusion as there is no post-data assessment. Therefore, SMEs should figure out how to rationalize their employees' needs & priorities, applications, & their primary information, &, after

that, merge their framework accordingly. In conclusion, it is recommended that future researchers perform a field survey by collecting primary data and doing statistical tests on the study variables to evaluate the factors implicated in the study's conclusions.

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