T.C.

ISTANBUL OKAN UNIVERSITY

INSTITUTE OF GRADUATE SCIENCES

THESIS FOR THE DEGREE OF MASTER OF ENGINEERING AND NATURAL SCIENCES IN COMPUTER ENGINEERING

Rasha Jasim Habeeb Habeeb

SOCIAL COMMERCE ADOPTION BASED UTAUT MODEL FOR CONSUMER BEHAVIOR: IRAQI SMALL AND MEDIUM ENTERPRICE

THESIS ADVISOR

Assoc. Prof. Dr. Shadi M. Hilles

ISTANBUL, June 2022

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ABSTRACT

E-commerce is one of the Internet's most far-reaching influences, particularly in terms of business and market models. Social commerce has proven to be a significant topic in information systems, where rapidly growing online shops e-commerce platforms are assisting in increasing customer engagement and sales. As a result, social media has grown in importance as a platform for the retail industry. Based on the proposed enlarged Unified Theory of Acceptance and Utilize of Technology (UTAUT) paradigm, this study investigates the influence of social commerce on customer behavior and intention to use electronic purchasing in the Iraqi market. The goal of this work is to analyses critical aspects utilizing empirical research and a quantitative survey questionnaire distributed to social media users, which yielded 410 valid replies, which we analyzed using the SPSS software. The importance of e-commerce is obvious to all parties. The findings also revealed that the majority of participants support and appreciate the notion of e-commerce. Furthermore, the data show that behavioral intention and actual use of social commerce are positively influenced by performance anticipation. The inclusion of relevant insights obtained from interviews, questionnaires, and focus groups into the proposed model ensures that the model has both theoretical and practical validity, where the study considers the major effect of Iraqi customers' behavioural intentions and culture on social commerce. Customer adoption and confidence in social commerce were among the nine dependent factors analyzed in the study.

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List of Abbreviations

UTAUT:	Unified Theory of Acceptance and Use of Technology
SMEs:	Small and Medium-sized Enterprises
SPSS:	Statistical Package for the Social Science
SAS:	Software And Services
ANOVA:	Analysis of Variance
SEM:	Scanning Electron Microscope
E-commerce:	Electronic Commerce
EDI:	Electronic Data Interchange
E-mail:	Electronic mail
C2C:	Consumer to Consumer
B2B:	Business to Business
B2C:	Business to Consumer
B2G:	Business to Government
B2E:	Business to Employee
PSO:	Particle Swarm Optimization
RFIs:	Request For Information
RFQs:	Request For Quote
GSA:	General Service Administration
MAS:	Multiple Award Schedule
ARRA:	America Recovery and Reinvestment Act
B2M:	Business to Manager

C2B:	Consumer to Business
GPS:	Global Positioning System
G2C:	Government to Consumer
ICTs:	International Center for Theoretical Sciences
G2E:	Government to Employee
E-government:	Electronic Government
E-learning:	Electronic Learning
G2G:	Government to Government
NHS:	National Health Service
SIS:	Schengen Information System
P2P	Peer to Peer
MSMEs:	Ministry of Micro, Small and Medium Enterprises
BI:	Behavioral Intention
PE:	Performance Expectancy
EE:	Effort Expectancy
SI:	Social Influence
FC:	Facilitating Condition
PEOU:	Performance Expectancy Of Use
M-learning:	Machine Learning
TAM:	Technology Acceptance Model
CFA:	Chartered Financial Analyst
AVE:	Automatic Virtual Environment
IT:	Information Technology
IOS:	Isolation Operating System

E-business:	Electronic Business
UGC:	User-Generated Content
E-shopping:	Electronic Shopping
NICI:	National Investment Commission - Iraq
POV:	Point of View
S-commerce:	Social Commerce
HIEs:	Health Information Exchange
PHR:	Personal health record
E-health:	Electronic Health
SIDS:	Small Island Developing States
CAATTs:	Computer-aided audit tools
PLS-SEM:	partial least squares structural equation modeling
E-procurement	Electronic Procurement
MPWH:	Ministry of Public Works and Housing
IBM:	International Business Machines Corporation
PC:	Personal Computer
MB:	Mega Byte
SQL:	Structured Query Language
ANOVA:	Analysis of variance
CFA:	Chartered Financial Analyst
LV:	Latent Variable
MV:	Manifest Variables
IV:	Instrumental Variables
DV:	Dependent Variables

AMOS:	Analysis Of a Moment Structures
E-tendering:	Electronic Tendering
ML:	Machine Learning
E-platform:	Electronic Platform
AI:	Artificial Intelligence
PJ:	procurement joint operations

2. Introduction

The rise of social commerce has brought considerable changes to both firms and consumers. Hence, understanding the consumer behavior in terms of social commerce has become crucial for firms that aspire to better influence customers and leverage the power of their social links.

Given that research on this subject is new and somewhat dispersed, it will be conceptually significant to assess what has been investigated and obtain useful conclusions via an organized evaluation of the literature. In this research, we undertake a systematic evaluation of social commerce studies to clarify how customers act on social networking sites.

We categorize these studies, evaluate key hypotheses, and highlight relevant research methodologies. More crucially, we Use UTAUT Model where We feel that this paradigm may offer a valuable basis for future social commerce studies. This research undertakes a literature evaluation of customer behavior in social commerce . The research analyze the major effect on behavioral intention of Iraqi customers and their cultural in social commerce. The investigation evaluated nine dependent variables which are investigate customer adoption and recognized by social commerce.

2.1 Social Commerce, A definition:

Social commerce may be characterized as word-of-mouth applied to e-commerce (Dennison et al. 2009). (Dennison et al. 2009). However, Parise and Guinan (2008) propose a more complete definition where social commerce refers to a more social, innovative and collaborative ap proach used in online markets.

In its definition, Wigand et al. (2008) capture the adjustments produced by social commerce and explain the concept as employing social media applications to influence business, hence transforming a market for products or services into a socially centered and user-driven marketplace.

Social commerce incorporates numerous fields, including marketing, computer science, psychology, which may add to the variety of definitions. For instance, in marketing, social commerce is about a noteworthy trend in online marketplaces where firms harness social media or Web 2.0 as a direct marketing tool to enhance customers' decision making processes and buying behavior (Constantinides and Fountain 2008). (Constantinides and Fountain 2008).

Focusing on computer technology, Lee et al. (2008) describe social commercial activity as an online mediated implementation incorporating Web 2.0 technologies, such as Ajax (Murugesan 2007) and RSS (Wigand et al. 2008) with interactive platforms, such as social networking sites and content communities in a commercial environment.

With respect to sociology, social commerce is about leveraging web-based social groups by e-commerce enterprises, concentrating on the impact of social influence which changes the interaction among consumers (Kim and Srivastava 2007). (Kim and Srivastava 2007). Finally, Marsden (2009) addresses social commerce in terms of the psychology of social shopping, where consumers are impacted by salient information cues from others inside a networked group when they shop online.

Although social commerce has been defined differently, the abovementioned definitions help scholars and practitioners to get a wide knowledge of its principles. While these definitions imply distinct boundaries for social commerce and e-commerce, they show that social commerce is a development of ecommerce (Kooser 2008, Curty and Zhang 2011, Wang and Zhang 2012).

Based on the above discussion, we define social commerce as an Internet-based commercial application, utilizing social media and Web 2.0 technologies which support social interaction and user generated content in order to assist consumers in their decision making and acquirement of products within online marketplaces and communities.

The distinctions between e-commerce and social commerce can be emphasized in terms of company objectives, consumer relationship and system engagement. With respect to corporate aims, e-commerce focuses on optimizing efficiency with techniques for sophisticated searches, one-click purchase, specification-driven virtual catalogs and suggestions based on consumers historical shopping behavior (Carroll 2008). (Carroll 2008). Social commerce.

however, is directed toward social purposes, such as networking, collaborating and information sharing, with a secondary emphasis on buying (Wang and Zhang 2012). Regarding co nsumer connection, clients normally interact with e-commerce platforms separately and independently from other customers, whereas social commerce incorporates online communities that promote social connection to increase communication between customers (Kim and Srivastava 2007). (Kim and Srivastava 2007).

As regards system interaction, e-commerce in its classical form nearly typically provides one-way browsing, where information from consumers is rarely (if ever) transferred back to firms or other customers. Social commerce, however, provides more social and interactive approaches that help consumers express themselves and share their information with other consumers including with enterprises (Parise and Guinan 2008).

2.2 **E-commerce introduction, advantages and limitations.**

Electronic commerce, also known as e-commerce, is the term used to describe economic activity that takes place through the internet. E-commerce encompasses a wide range of business activities, including retail shopping, banking, investment, and rental properties. Even personal service businesses, like hair and nail spas, may benefit from ecommerce by offering a website for the sale of associated beauty products that are generally only available to their local consumers. Mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data exchange (EDI), inventory management systems, or automated data gathering systems are all examples of electronic commerce. Modern electronic commerce often involves the usage of the World Wide Web at some point throughout the transacti on's life cycle, while it can also include e-mail, mobile devices, social media, and telephones. E-commerce varies from e-business in that e-business does not involve a commercial transaction, or an exchange of value beyond organizational or individual borders. The electronic purchase and sale of goods and services by businesses and cu stomers without the use of paper documentation.

With the development of identity fraud and impersonation, privacy has become a key concern for consumers, and any concern for consumers must be regarded as a serious concern for E-commerce suppliers.

E-commerce Security is a component of the Security System that is especially used to the components that affect e-commerce, such as Computer Security, Data Security, and other more broad areas of the Information Security framework. E-commerce security does have its own set of intricacies, and it's one of the most apparent security features that affects end-user experience.

Regarding the advantages and limitations of E-commerce we could mention together , and it would be the user decision whether it’s fits his business or not and there are some points to consider such as :

1. Advantage: No more waiting in lines or being put on hold.

This is one of the most popular ecommerce advantages among customers.

2. Disadvantage: Absence of a personal touch.

Missing the human touch and relationships human form when shopping in a store, Ecommerce, on the other hand, is significantly more antiseptic.

3. Benefits and Drawbacks.

It's Easier to Compare Prices where consumers can find the cheapest pricing using a variety of shopping search results and comparison buying websites ,Buyers adore it, but vendors dislike it because many of their products are taken out of the consumer's evaluation group.

4. Advantage: Access to Stores in Remote Locations .

This can be a significant benefit for persons who do not live in major urban areas. Similarly, ecommerce allows ecommerce enterprises to expand into other markets.

5. Disadvantage: Inability to test the product prior to purchase.

Customers want to touch, feel, hear, taste, and smell a variety of things before making a purchase. That luxury is taken away by ecommerce.

6. Advantage: There is no need for a real shop.

Ecommerce firms avoid one of the most significant expense overheads that merchants must pay by not having a physical presence.

7. Disadvantage: Requirement of Internet Access Devices

Ecommerce can only be done with the help of a computer or a mobile device that has Internet connectivity.

8. Disadvantage: Internet access is required.

To participate in ecommerce, you'll need more than just an access device; you'll also need Internet access.

9. Advantages and Disadvantages: Coupons and Deals are widely available.

Though there is nothing innately discount-oriented about ecommerce, the way internet business has grown has resulted in cheaper costs online. For the buyer, this is a benefit, but for the seller, it is a drawback.

10. Advantage: Numerous Options.

Ecommerce businesses can feature a wide variety of products because there are no restrictions on shelf space or shop size.

11. Advantage: Stores are open 24 hours a day, 7 days a week.

Consumers will benefit greatly from the removal of store-timing restrictions.

12. Disadvantage: Credit Card Fraud.

Credit card fraud affects both consumers and companies. Some pessimists even predict that fraud would lead to the death of online commerce.

13. Disadvantage: Security Concerns.

Consumers are exposed to identity theft and other risks when their personal information is collected by ecommerce companies.Phishing attacks and other kinds of security fraud pose a threat to businesses.

14. Advantage: Ability to Purchase from and Sell to Certain other Consumers.

Individuals can buy and sell of each other on auction and listing sites. This ushers in a whole new ecommerce paradigm. eBay.com is the most well-known enabler of consumer to consumer (C2C) shopping.

15. Advantage: Digital Goods Can Be Purchased Immediately.

It is no longer necessary to purchase a CD of one's favorite music. Digital products, including such music, can be downloaded in a matter of minutes and used right away.

16. Advantage: Possibility to Have Vendors Bid on Your Project.

Consumers have been given new opportunities as a result of online commerce. You can now post your requirements on the internet and have providers compete for your business.

17. Advantage: Disruption in the delivery of goods.

If shopping is about instant gratification, after which customers will be left empty-handed after making a purchase on an ecommerce website for some time.

18. Disadvantage: Inability to Spot Scams.

Consumers are frequently duped by fly-by-night ecommerce websites that appear to be legitimate but aren't. Scammers frequently take orders and then vanish.

19. Advantage: "Location, location, location" isn't everything.

The placement of the actual store, according to conventional knowledge, is quite important. However, ecommerce has freed enterprises from the constraints of location.

20. Advantage: Capability to Scale Up Quickly.

Because they are not restricted by physical constraints, ecommerce enterprises may scale up more easily than physical merchants. Of course, as one becomes older, logistics become more diffi cult.

However, by selecting the appropriate third-party logistics supplier, one can scale up their operations.

21. Advantage: There is no limit to the amount of shelf space available.

Being free of the constraints of a real shop also means being free of the constraints of shelf space. This enables ecommerce enterprises to "stock" a large number of items.

22. Disadvantage: Extremely High Dependency on the Website.

The website is everything for an ecommerce company. Even a few minutes of downtime can result in significant financial loss as well as consumer displeasure.

23. Disadvantage: Complexity of Regulations and Taxation.

The tax ramifications of ecommerce transactions are still a mystery to regulators. This is particularly true when the seller and the buyer are from separate countries. This can result in multiple taxation, as well as increased accounting and compliance costs.

24. Disadvantage: Chargebacks.

Chargebacks are allowed by credit card companies rather liberally when customers request them. If the goods have already been delivered, this puts ecommerce enterprises in a terrible situati on.

25. Advantage: Communication Ease.

Because the ecommerce merchant collects contact information via email, sending automated and tailored emails is simple.

26. Advantage: Extensive Customization.

An ecommerce website can modify many parts of what a customer sees by using cookies and other techniques of tracking their behavior.

27. Advantage: No need to deal with currency barriers.

Many customers pay using money notes at real stores, this necessitates careful financial management for a large and multi retailer. It makes it difficult for the tax authorities to appropriately assess a retailer's earnings. Payment systems leave a more detailed trail, which benefits both the retailer and the tax authority.

Advantage: Efficient Procurement.

Procurement becomes faster, more transparent, and less expensive as the entire supply chain can be linked to business to business ecommerce systems.

29. Advantages and Disadvantages of Individual Item Delivery.

The consumer appreciates the convenience factor where goods delivered to their home. However, the logistics of delivering each individual item puts a significant strain on the ecommerce business.

30. Disadvantage: Ecommerce Infrastructure Requires Expense and Expertise.

To run an effective ecommerce website, you'll need a lot of data infrastructure. When denial-of-service attacks are taken into account, the infrastructure needs to be even bigger.

31. Advantage: Excellent Inventory Management

If ecommerce enterprises can tune into their suppliers' order processing systems, they can keep inventory low while avoiding stock-out situations.

32. Advantage: Lower Employee Costs.

Lower-level positions require fewer humans because ecommerce procedures are largely automated. Human resources can be put to better use for higher-level tasks.

33. Advantage: Increased Search Engine Traffic.

Search engines are used by nearly 100% of Internet users. Search engines may be a terrific source of qualified free visitors with the correct ecommerce SEO.

34. Advantage: Ability to Sell Low-Volume Products Too.

The focus of traditional retail is on stocking fast-moving items.

Due to the high cost of shelf space, items which do not sell quickly should be considered for deletion from the product range.The economics of ecommerce enable for the inclusion of slow moving, even defunct, products in the catalog.

35. Advantage: Logistics Tracking.

Because good logistics are critical to a successful ecommerce business, the capability to activate and monitor logistics online is an important tool for ecommerce businesses . (Niranjanamurthy et all, (2013)).

2.3 Types Of E-commerce.

2.3.1 Business-to-business :

Business-to-business (B2B) refers to transactions that take place between companies, such as between a manufacturer and a wholesaler or a wholesaler and a retailer. The terms business -to-consumer (B2C) and business-to-government (B2G) are diametrically opposed (B2G).

B2B (Business-to-Business) transactions are far more common than B2C (Business-to-Consumer) transactions. The main reason for this is that in a typical supply chain, there would be numerous B2B processes that require sub components or raw materials, but only one B2C transaction, namely the sale of the finished product to the end customer.

For example, an automobile manufacturer buys tires, glass for windshields, and rubber hoses for its automobiles, among other B2B transactions. A single (B2C) transaction occurs when a finis hed car is sold to a consumer.

In the area of communication and collaboration, B2B is also employed. Many businesses are now utilizing social media to engage with their customers (B2C); however, they are also using similar platforms to connect with their employees (B2B). Employee – referred to as "B2B" interaction when it occurs between coworkers.

To distinguish electronic interactions between businesses and consumers, the phrase "business-to-business" was first established to characterize electronic communications between businesses or organizations (B2C). It was originally used to describe mainly industrial or capital goods marketing, but it soon began to be employed in marketing as well. It is now commonly used to describe all products and services by businesses Although the majority of sales and marketing employees work in the B2B sector, many academic institutions and trade periodicals place a greater emphasis on B2C than B2B.

2.3.2 Business-to-consumer :

Business-to-consumer (B2C, also known as Business-to-Customer) refers to actions in which businesses provide products and/or services to end customers.

A person purchasing shoes from a merchant is an example of a B2C transaction. The transactions that resulted in the shoes becoming available for purchase, such as the leather, laces, rubber, and other materials. The selling of a shoe from a shoemaker to a retailer, on the other hand, would be termed a (B2B) transaction.

While the phrase "e-commerce" refers to any online transactions, the term "business-to-consumer" refers to any business or firm that offers its products and services to customers for its own use over the Internet. Most people associate B2C e-commerce with Amazon, the online bookseller that debuted in 1995 and swiftly surpassed the nation's big shops. B2C has expanded beyond online shops to include services like online banking, travel, online auctions, health information, and real estate websites. Craigslist and other peer-to-peer platforms come into the B2C category.

B2C e-commerce had a terrible time after the Nasdaq, which was heavily reliant on technology, collapsed in 2000. Dozens of e-commerce sites closed their virtual doors as a result of the subsequent dotcom devastation, and several analysts projected years of difficulties for online retail businesses. However, shoppers have continue to flock to the internet in growing numbers since then. In fact, despite growing concerns about identity theft, North American consumers embraced ecommerce to the point where they spent $172 billion online shopping in 2005, rising from $38.8 billion in 2000.

According to Forrester Research, consumers will spend $329 billion annually online by 2010 . Furthermore, the percentage of Americans who purchase online is predicted to increase from 39% this year to 48% in 2010.

B21, a B2C extension, was coined in October 2010. (sometimes referred to as B2I). While B2C refers to any type of business promoting or selling to customers, B21 is more focused on a single person. B21 necessitates personalization for that distinct person. In order to deliver a personalized experience, B21 demands insight. (W, Jay D,2007)

2.3.3 Business-to-employee:

Electronic commerce for business-to-employee (B2E) employs an intra-business network to allow enterprises to just provide products or services to their personnel. B2E networks are commonly used by businesses to automate employee-related core business.

- Online insurance policy administration.
- Corporate news distribution.
- Online supply requests.
- Special employee offers.
- Employee benefits reporting.
- 401(k) management.

Are examples of B2E applications.

2.3.4 Business-to-government:

B2G marketing is a derivative of B2B marketing and is frequently referred to as a market definition of "public sector marketing," which entails marketing products and services to various levels of government, including federal, state, and local, using integrated marketing communications methods including such corporate strategy public relations, brand recognition, marcom, advertising, and web-based communications.

In a reverse auction, B2G networks provide such a forum for businesses to bid on government offers that are given as solicitations in the form of RFPs. Tenders are issued by public sector organizations (PSOs) in the form of RFPs, RFIs, RFQs, Sources Sought, and other formats, and providers reply.

Pre-negotiated standing contracts with vendors/suppliers and their products and services at defined prices are common among government bodies. These can be state, local, or federal contracts, and some may be grandfathered in by other institutions (for example, the federal government contract holder's rates on a GSAS General Services Administration Schedules will be recognized by California's MAS Multiple Award Schedule).

There are a number of social networks devoted to this vertical market, and their popularity has grown since the implementation of the ARRA/Stimulus Program, which raised the amount of government funding accessible to commercial companies for grants and contracts.

2.3.5 Business-to-Manager:

Business-to-Manager, or B2M, is a new type of electronic commerce.
It refers to the exchange of goods and services between businesses (product sellers or other employees) and professional managers.

The B2M model entails gathering information on the internet and earning commission by giving services to businesses.

2.3.6 Consumer-to-business:

Consumer-to-business (C2B) is an e- commerce business model in which individual (consumers) supply products and services to businesses in exchange for payment. This business model is the polar opposite of the typical business paradigm, in which enterprises sell goods and services to customers (B2C). This can be seen in blogs or web forums where the author provides a link to an online business that facilitates the purchase of a product (such as a book on Amazon. com), as well as the author may receive affiliate revenue if the sale is successful.

This form of business partnership is known as a reversed business relationship. The C2B scheme was created as a result of fundamental changes:

This type of economic interaction has been made possible by connecting a huge number of people to a bidirectional network. Traditional media outlets have a one-way relationship , whereas the internet has a bidirectional relationship.

Consumers now have access to the technology that were previously only available to huge corporations (digital printing and acquisition technologies, high-performance computers, and powerful software).

2.3.7 Consumer-to-consumer:

Consumer-to-consumer (C2C) (aka citizen-to-citizen) electronic commerce entails transactions between consumers that are enabled electronically by a third party. The online auction is a common example, where a consumer lists an item and other customers bid to buy it; the third party usually charges a set fee or commission. The websites are merely intermediaries, serving to connect buyers and sellers. They are not required to inspect the quality of the things on offer.

Consumer-to-consumer (C2C) advertising is the design of a service or product with the special promotional strategy of having customers share it with one another as brand advocates based on the product's value. An investment in concepting and building a top-of-the-line service or product that customers are currently seeking is comparable to a pre-launch product perception marketing spend in the business-to-consumer (B2C) market.

Because it eliminates the expenses of using another company, this sort of e-commerce is projected to grow in the future. Someone hosting a garage sale, for example, could advertise their sale via advertisements relayed to the GPS units of nearby cars, according to Management Information Systems. This could reach a wider audience than simply hanging placards around the neighborhood. C2C trade surged rapidly online during the economic slump that began in 2008.

2.3.8 Government-to-Business:

G2B (Government-to-Business) is the non-commercial internet connection between central and local government and the commercial business community, as opposed to private persons (G2C).

2.3.9 Government-to-Citizen:

The communications links between a government and private individuals or inhabitants is known as government-to-citizen (abbreviated G2C). G2C communication is most commonly associated with the use of information and communications technology (ICTs), but it could also in clude mass mailings and media campaigns. At the federal, state, and local levels, G2C is possible. G2C networks are distinct from G2B (Government-to-Business) networks.

USA.gov, the official web portal of the United States, is one example of a Federal G2C network, while there are many others from governments throughout the world .

2.3.10 Government-to-Employees:

G2E (government-to-employees) refers to online contacts among government units and there own employee via instantaneous communication platforms. G2E is one of the four basic e-Government delivery models .

G2E is a powerful tool for delivering E-learning to employees, bringing them together, and encouraging knowledge sharing . Employees can also get information about benefits and compensation policies, training and learning opportunities, and civil rights laws through it. G2E services also include software for keeping track of staff information and records .

Many countries, notably USA, Hong Kong, and New Zealand , have adopted G2E.

2.3.11 Government-to-Government:

Government-to-Government (abbreviated G2G) refers to non-commercial online interactions between government organizations, agencies, and authorities. Its use is widespread in the United Kingdom, alongside G2C, which is the online non-commercial engagement between central and local government and private citizens, and G2B, which is the online non-commercial interaction between central and local government and the private corporate sector. G2G systems are often divided into two categories:

Internal facing - connecting a single government's departments, agencies, organizations, and authorities - examples include the Government Gateway's integration element and the NHS Connecting for Healthcare Information SPINE in the United Kingdom.

External facing - connecting several government information systems - an example is the integration part of the Schengen Information System (SIS), which was built to meet the Schengen Agreement's criteria .

2.3.12 Peer-to-peer:

P2P computing, often known as peer-to-peer networking, is a distributed software architecture that divides jobs or workloads among peers. Peers are equal-opportunity, equally capable users in the application.

They are supposed to build a node network that is peer-to-peer. Without the need for central coordination by servers or reliable hosts, peers make a portion of their resources, like as processing power, disk storage, or communication bandwidth, allow access to other network members . In contrast to the classic client–server architecture, where only servers supply and clients consume, peers are both suppliers and consumers of resources.

File sharing systems like Napster popularized the peer-to-peer application structure. In many domains of human interaction, the principle has generated new structures and philosophies. Peer-to-peer networking encompasses not just technological activities, but also social processes that have a peer-to-peer dynamic.In this setting, social peer-to-peer processes are gaining traction across society. (R, Nemat,2011).

2.4 Overview on the Iraqi small medium enterprises.

We must address the social context and recognize the amount to which it affects our research, since it is as significant as any practical tool, and the application of scientific instruments and methodologies without thoroughly examining the environment may result in misleading findings. Here are a few things you should be aware of.

Because of the economic insecurity induced by falling oil prices, Iraqi officials highlighted the significance of economic diversification. The expansion of (MSMEs) should be considered as part of a comprehensive plan to expand Iraq's economy and encourage the formation of more creative and employment opportunities for men and women.

Sustainable company development, which accommodates companies of all sizes across many segments, is a key component to successful private sector improvement. In 2011, a survey was disseminated to 4,533 MSMEs in Iraq with the goal of uncovering the exciting potential as well as the challenges that were confronting informal businesses and recognizing how reforms to the business environment may restore the conditions for MSMEs development.

The results of this poll show that safety is a major concern for many professions, and many businesses were also found to be operating with low levels of investment in technology or skilled staff. Furthermore, access to markets is a major issue for many MSMEs.

These limitations have a significant impact on the firms' ability to get the inputs they need. Similarly, obtaining financial and training for skill development connected to company growth is a major issue. Despite the significance of small and medium companies (SMEs) in macroeconomic growth, job creation, and microeconomic development, particularly in socioeconomic and household welfare, research addressing SMEs in Iraq seems to be not only overlooked, but also restricted in breadth.

Several studies have been conducted to study the impact of financial assistance on the perfor mance of small and medium-sized businesses in Iraq. Surprisingly, there is no evidence of a research that has been conducted in Iraq to determine the beneficial elements of information technology on the performance of small and medium-sized businesses.

As a result, the goal of this study is to discover the effective information technology elements that are connected with the performance of small and medium-sized businesses in Iraq.Al-Lamy et all (2019) .

2.5 SMEs and it's importance to Iraqi economy .

Small and medium-sized companies (SMEs) play a critical role in job creation and economic development (Tambunan, 2005). As a result, it is not surprising that small and medium-sized firms (SMEs) attract a lot of attention in Iraq. According to preliminary data, Iraq's small and medium-sized enterprises (SMEs) account for more than 99 percent of the total number of businesses in the nation.

According to the data, small and medium-sized firms (SMEs) play an important role in the nation's economy and well-being. In terms of numbers, the textile and clothing industry has the highest concentration of SMEs, followed by food and drinks, metals and metal products, and wood and wood products (Harash et al. 2013; Harash et al. 2014).

Small and medium-sized companies (SMEs) promotion is seen as a major problem in many nations, including Iraq (Harash et al. 2013; Harash et al. 2014), since it plays a significant role in providing more employment and economic conversion. It is also implied that sectors won by small and medium-sized firms (SMEs) are more capable of developing dynamic economies of scale (Jasra et al. 2011).

The functions of small and medium-sized firms (SMEs) in the generation of productive employment are concerned with their location in the middle of a spectrum of sizes and resource intensities in a growing economy.

Developing countries have begun to recognize the critical role that small and medium-sized firms (SMEs) can play in their growth (Maad, 2008). Because of the significance of small and medium-sized firms (SMEs) to a country's economic growth, studies in this sector are critical in allowing academics and stakeholders to increase their knowledge and skills in the management of SMEs (Harash et al. 2013; Harash et al. 2014).

Small and medium-sized firms (SMEs) are often feeder industries for bigger sectors in today's more globalized economy, and they are critical for economic growth and development (Kongolo, 2010). Small and medium-sized firms (SMEs) are now widely regarded as the primary source of dynamism, innovation, and flexibility in growing and developing economies, as well as in the economy of the majority of nations.

They provide a significant contribution to economic growth and job creation (Koh et al., 200 7). Small and medium-sized firms (SMEs) are a potential economic backbone for many communities, contributing much more to employment than huge corporations (Chin et al. 2012). However, despite their critical role in economic development and employment, small and medium companies (SMEs) in developing countries confront a funding gap (Beck & Demirguc-Kunt , 2006; Dube, 2013) due to challenges in SMEs access to credit, which hampers economic prosperity.

Small and medium-sized firms (SMEs) are an important component of the economic fabric of emerging nations, and they play an important role in promoting development, innovation, and prosperity. Finance is likely one of the most significant impediments to small and medium-sized firms (SMEs) in increasing their financial performance and competitiveness in Iraq.

As a result, developing a company and executing policy were critical components for the growth of small and medium-sized firms (SMEs), and money was discovered to be a barrier to local and worldwide competitiveness (Beck & Demirguc-Kunt, 2006; Mohd Shariff et al. 2010; Mohd Shariff & Peou, 2008).

Unfortunately, businesses face significant barriers to obtaining the cash they need to grow an d expand, with over half of small and medium-sized firms (SMEs) in developing countries citing access to financing as a key limitation. According to reports, the main challenges affecting small and medium enterprises (SMEs) in Iraq include a lack of knowledge of SMEs, access to bank credit (Iraq ranked 168 out of 181 countries in terms of ease of getting credit), access to markets, appropriate technology, low production capacity, and a lack of interest (Harash et al. 2014; Harash et al. 2013; USAID, 2010).

The scarcity of empirical studies on Iraqi finance, especially on the performance of small and medium-sized firms (SMEs), has been a significant impediment to doing problem-solving research. The majority of research involving small and medium-sized firms (SMEs) just described financial deficiencies without offering real data (Harash et al. 2013; Harash et al. 201 4; USAID, 2010).

In summary, the problem statement may be phrased as follows: The difficulties that small an d medium-sized firms (SMEs) have in acquiring financing in Iraq , There are financial institutions eager to offer financing to small and medium-sized firms (SMEs), but Iraqi SMEs are unable to fulfill these financial institutions' standards.

The most important of these criteria is the problem of collateral, which most small and mediu m-sized businesses (SMEs) cannot furnish. Iraq lacks systematic and empirical study on the impact of finance on the performance of small and medium-sized businesses (SMEs).

To improve the performance of small and medium companies (SMEs), it is necessary to determine the degree to which money has an influence on their performance (SMEs). As a result, it is necessary to ascertain the link between finance and the performance of small and medium-sized businesses (SMEs) Harash et all (2017).

Social Commerce and it’s relation with Technology ,Community and Environment Models. In comprehending numerous connected fields that are concerned with ideas and phenomena of information with a social purpose, Zhang and Benjamin (2007) develop a conceptual framework, termed the information model.

This model may be utilized to highlight the similarities and contrasts across different linked fields to examine and promote curricula and educational programs, to prescribe and assess research programs and studies, and to revisit historical situations (Liu, Benjamin and Zhang, 2007) . The I-model essentially comprises of four fundamental components that are the principal focus of study in various recognized reference disciplines: information, technology, people, and organization/society.

According to Zhang and Benjamin, a component of a scientific area is the target of scientific investigation. A field may have several components; some are more basic and fundamental, others are less so.

A basic component of a scientific area is necessary, existing independent of other component s, and is concerned with the heart of the topic. Information is an object of study in library science and information science long before information and communication technologies were establishe d. Technology is the core of computer science and engineering. People are what psychologies, soci ologists, and cultural anthropologists are interested in. Finally, organization is the attention of sever al social sciences (Zhang and Benjamin, 2007).

Social commerce as an area of study is concerned with information-related issues. Of reality, social commerce is concerned with all four key components in the I-model as shown in Figure 1 where People are the basic force and motive for socialization, trade, technical growth, and information generation and consumption. According to Zhang and Benjamin, persons include those who are users of ICT, who are designers and inventors of ICT, and who manage and influence ICT usage behaviors in diverse settings (Zhang and Benjamin, 2007). In social commerce, individuals may be individual customers and sellers, small or big groups of people, or communities who are users and beneficiaries of the technology.

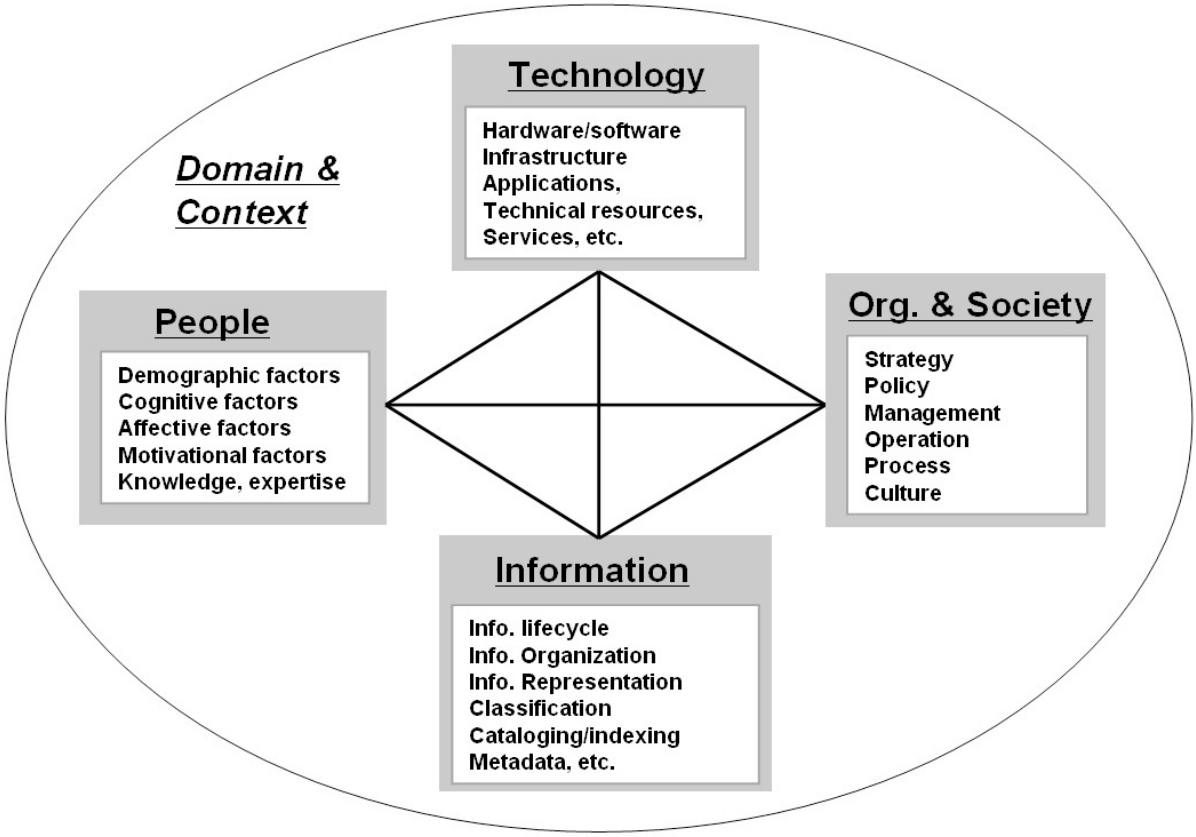

Figure 1. The I-Model (Zhang and Benjamin, 2007)

The organization and society element of the I-model is concerned with policies, strategies, management, operation, processes, structures, and cultures (Zhang and Benjamin, 2007).

These concerns are under the general notion of "management" and are highly significant to the social commerce sector. As with any kind of trade or business, social commerce is explicitly or implicitly about finally producing profit or creating benefit. It is thus important to analyze corporate strategies, business models, rules, procedures, and prospects for merchants and other organizations that are considered to gain or profit from social commerce. To make these difficulties more visible and avoid any misunderstanding, we employ the word management to describe this component in our paper.

On the technology component of the I-model, one is concerned with items such as hardware, software, infrastructure, platforms, apps, resources, services, and the like. Technology-based or mediated information processing, communication, and information services are trademarks of the digital world (Zhang and Benjamin, 2007).This is true for social commerce as well, which is strongly mediated by technical skills and improvements.

Thus, we must unavoidably be concerned with the tech elements of social commerce.

Finally, information with a social purpose has a lifetime that involves the acquisition or generation, processing, dissemination, and usage. The intrinsic character of information encompasses information organization, shape, structure, classification, cataloging, and indexing. Applications of information in practice rely on how it interacts with other fundamental components of the I-model, and within what domains and situations (Zhang and Benjamin, 2007).

Information is therefore a vital component of social commerce with a focus on user/consumer-generated content.

In this paper, we utilize this customized UTAUT model framework to evaluate and examine many aspects of social commerce and its development. Besides reviewing each component and we will discuss in the next line our model and why we utilize it

2.6 The unified theory of acceptance and use of technology (UTAUT).

The unified theory of acceptance and use of technology (UTAUT) is a technology acceptance paradigm established by Venkatesh and others in "User acceptance of information technology: Toward a unified vision". The UTAUT seeks to describe user intents to utilize an information system and subsequent use behavior. The idea claims that there are four fundamental constructs:

1) performance expectation.

2) effort expectancy.

3) social influence.

4) enabling factors.

The first three are direct drivers of use intention and behavior, while the fourth is a direct determinant of user behavior. Gender, age, experience, and voluntariness of use are suggested to modulate the influence of the four major characteristics on use intention and behavior. The theory was created through a review and consolidation of the structures of eight models that previous research had utilized to clarify information systems usage patterns (theory of reasoned action, technology acceptance model, motivational model, theory of planned behavior, a combined theory of planned behavior/technology acceptance model, model of personal computer use, diffusion of innovations theory, and social cognitive theory).

Further validation by Venkatesh et al. (2003) of UTAUT as shown in figure 2. in a longitudinal research revealed it to explain for 70 percent of the variation in Behavioural Intention to Usage (BI) and roughly 50 percent in actual use . Venkatesh et al. (2003)

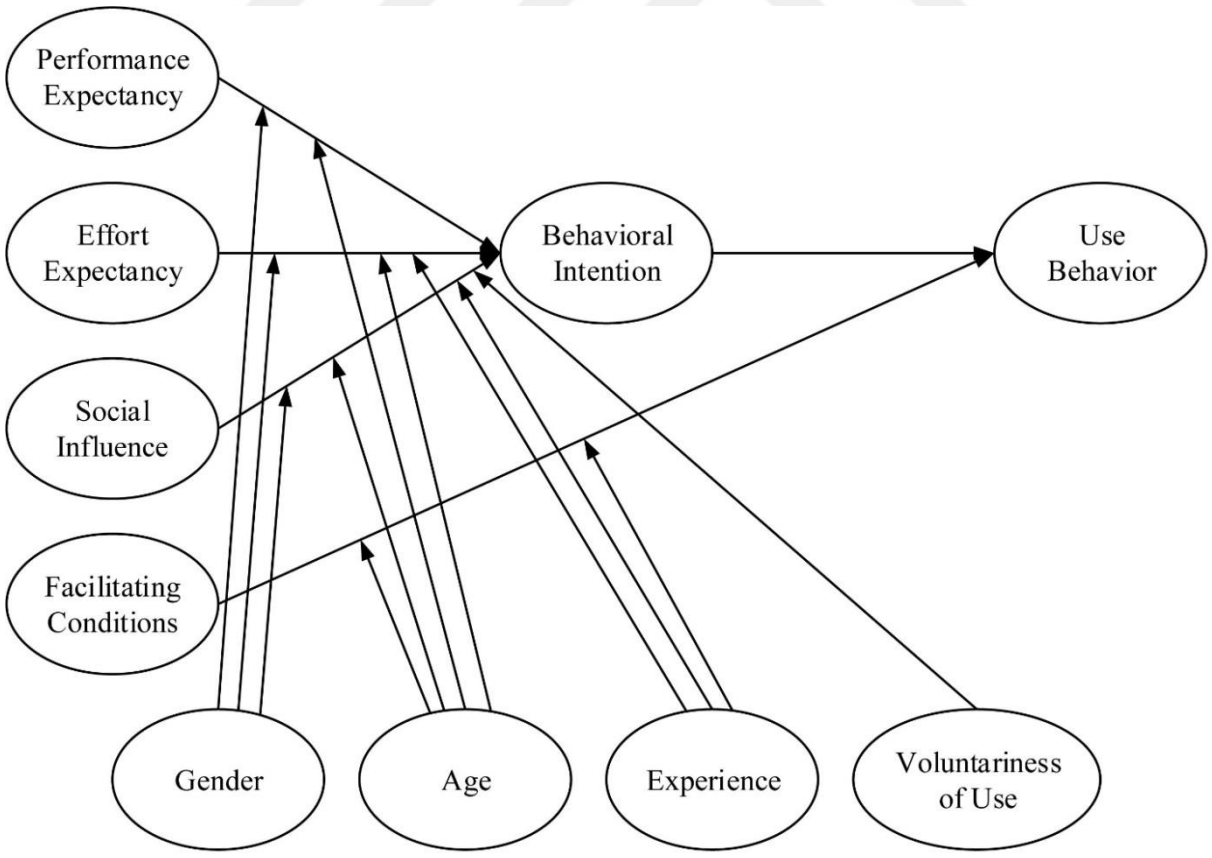

Figure 2 .The UTAUT model

And as we mentioned earlier and Based on a thorough investigation and comparison of the aforementioned models, Venkatesh et al. (2003) developed an integrated model, called the UTAUT model, which can explain 70 percent of the variation in user intention. The findings of that empirical investigation indicated that the UTAUT model is the most effective model for assessing technological adoption. The UTAUT model consists of six primary elements, namely performance expectation ("PE" hereafter), effort expectancy ("EE" hereafter), social influence (SI), facilitating circumstances (FC), behavioral intention ("BI" hereafter) to use the system, and use behavior (see Figure 2)

The UTAUT model has four main deciding components and four moderators. According to the concept, the four deciding components of BI and use behavior are PE, EE, SI, and FC (Venkatesh et al., 2003). (Venkatesh et al., 2003). Gender, age, experience, and desire to utilize are the moderators that impact consumption of technology.

Effort expectation has been added in the UTAUT model, and is a major predictor of technological adoption. According to Venkatesh et al. (2003), EE is "the degree of ease associated with the usage of the system." According to Cimperman et al. (2016), the antecedents of EE include ease of use, complexity, and PEOU. PE has also been added in the UTAUT model, and has been described as "the degree to which a person feels that the system helps to increase work performance." BI has been described as "the degree to which a person has developed conscious plans about whether to do a given future behavior." In the context of the current research, EE reflects university students' perceptions about the ease of use of m-learning. PE represents students' thoughts about whether utilization of m-learning would boost their learning performance. Venkatesh et al. (2003) demonstrated that PE is the greatest indicator of a user's BI to embrace a technology.

According to one research, (Venkatesh et al., 2003; Šumak and Šorgo, 2016; Hoque and Sorwar, 2017; Khalilzadeh et al., 2017; Šumak et al., 2017) PE and EE are direct drivers of BI. The current research suggested that PE and EE may greatly affect students' BIs toward acceptance and adoption of m-learning. The following theories were offered Which is considered one of the uses of this model, which shows its effectiveness and importance.

Hypothesis 1: EE has a substantial effect on the BIs of university students to utilize m-learning.

Hypothesis 2: PE has a substantial effect on the BIs of university students to utilize m-learning.

Although invariance analysis can be performed on any of the UTAUT model's constructs, the primary focus of this study is on the four independent constructs – PE, EE, SI, and FC – because the two dependent constructs, BI and UB, have been tested repeatedly in previous TAM studies and the moderating variables are not of primary interest in most studies on technology adoption See Relations of these constructs and their measurement instruments in table 1 .

UTAUT Constructs	**Root Constructs**	**Models**	**References**
Performance Expectancy	Perceived Usefulness	TAM	Davis, 1989; Davis, Baggozzi, and Warshaw, 1989
	Extrinsic Motivation	MM	Davis, Baggozzi, and Warshaw, 1992
	Job-fit	MPCU	Thompson, Higgins, and Howell, 1991
	Relative Advantage	IDT	Moore and Benbasat, 1991
	Outcome Expectations	SCT	Compeau and Higgins, 1995; Compeau, Higgins, and Huff, 1999
Effort Expectancy	Perceived Ease of Use	TAM	Davis, 1989; Davis, Baggozzi, and Warshaw, 1989
	Complexity	MPCU	Thompson, Higgins, and Howell, 1991
	Ease of Use	IDT	Moore and Benbasat, 1991
Social Influence	Subjective Norm	TRA, TPB, C-TAM-TPB	Ajzen, 1991; Fishbein and Azjen, 1975; Matheison, 1991; Taylor and Todd, 1995

Table 1. Constructs and Measurements of the UTAUT, Kang et all. (2011)

various investigations that employed the UTAUT model used the original or significantly modified instruments.Although most research used confirmatory factor analysis (CFA), average variance extracted (AVE), and other reliability measures such as Cronbach's alpha, only a few studies used invariance analysis. Table 2 summarizes previous research that used the UTAUT paradigm.

(configural invariance and factorial loadings invariance) and complete model – were carried out, with just Chisquare difference statistics reported. More in-depth explanations of invariance analysis approaches may be found in the section titled 'Invariance analysis' below.

Li and Kishore (Li and Kishore 2006) performed an invariance study on the UTAUT model based on gender, Weblog experience, and frequency of Weblog usage. Their findings revealed that various dimensions, including PE and SI across gender, FC across Weblog experience, and SI and FC across Weblog frequency, were not invariant. Their findings are limited since only two kinds of invariance analysis – tau values – are used.

Constructs	Measurements
Performance Expectancy (PE)	pe1: I would find the system useful in my job. pe2: Using the system enables me to accomplish tasks more quickly. pe3: Using the system increases my productivity. pe4: If I use the system, I will increase my chances of getting a raise.
Effort Expectancy (EE)	ee1: My interaction with the system would be clear and understandable. ee2: It would be easy for me to become skillful at using the system. ee3: I would find the system easy to use. ee4: Learning to operate the system is easy for me.
Social Influence (SI)	si1: People who influence my behavior think that I should use the system. si2: People who are important to me think that I should use the system. si3: The senior management of this business has been helpful in the use of the system. si4: In general, the organization has supported the use of the system.
Facilitating Condition (FC)	fc1: I have the resources necessary to use the system. fc2: I have the knowledge necessary to use the system. fc3: The system is not compatible with other systems I use. fc4: A specific person (or group) is available for assistance with system difficulties.

table 2. . UTAUT Studies, Kang et all. (2011)

In a nutshell, The use of information technology, particularly information systems in government organizations, is critical to the improvement of public services. The Integrated

Licensing Service Information System (ILSIS) is a computerized system that processes licensing data and generates a collection of interactive information for distribution to all levels of users in. The Unified Theory of Acceptance and Use of Technology (UTAUT) technique is used in this research, using variables such as Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Behavioral Intention to Use, Gender, and Age.

3. Literature Review :

To inform our analysis of the research and to guide our review of the studies, we address four important questions:

1. what research settings were studied?
2. What theories were adopted?
3. What research methodologies were used?
4. what significant aspects were explored to explain customer behavior in social commerce?

These questions are consistent with prior literature review studies and may assist us consolid ate the research findings of numerous papers. We address the first three questions in this section. The fourth question is answered in the following section with the discussion of an integrated frame work.

According to (A.Stephen And O.Toubia,2010) Network linkages among vendors in social commerce marketplaces are links between sellers' shops that clients can use to browse between shops, analogous to browsing around a virtual shopping mall. For the people who participate as sellers in social commerce marketplaces and who earn commissions on the sales they make, the network can make their shops more accessible and more likely to be discovered by a browsing customer , where Social commerce is a growing concept in which sellers are attached in online social networks and sellers are individual people instead of firms. This essay investigates the economic value consequences of a social network connecting sellers in a big online social commerce industry. In this marketplace, each seller generates his or her own shop, and network ties among sellers have directed hyperlinks among their shops, in which their findings supports and suggest that social commerce networks between sellers can play an important economic,

value-creating role where A fundamental difficulty for stores (or individual sellers) in huge , online marketplaces is just being accessible to buyers. Social networks between sellers operate as "virtual shopping centers" by enabling clients browse between stores, thereby boosting the accessibility of the network's businesses. A more linked network tends to improve the general accessibility of its members, particularly if it is structured in a manner that reduces the number of dead ends from which consumers cannot explore onward. The shops that profit the most from the network are not necessarily those that are key to the network but rather those whose accessibility is most boosted by the network ***(K.Zhang and M.Benyoucef,2012)***.

Supported the same concept of Social commerce as the believed that The rise of social commerce has brought considerable changes to both firms and consumers. Hence, understanding consumer behavior in the context of social commerce has become crucial for firms that aim to better influence customers and leverage the power of their social links. they categorize these studies, analyze key hypotheses, and identify relevant research methodologies. More crucially, they draw upon the stimulus–organism–response paradigm and the five-stage consumer decision-making process to propose an integrated framework for understanding consumer behavior in this environment. they, outlining the social commerce idea, exhibiting its state-of-the- art, and defining the key characteristics in social commerce design. More crucially, a new conceptual model for social commerce the design has been proposed, with the intention of delivering insights into social commerce and the overall interactions among the players, the community, and online commerce.

They found significant drawbacks to this research however. For example, their conceptual model was only applied to two social commerce websites, which hindered us from making their conclusions more empirically meaningful. The third constraint involves the identification of ecommerce and Web 2.0 design features ***(T.Liang and E.Turban,2011)*** raised a point of Social commerce and Relationship Quality To understand the user's social sharing and social shopping intention in social networking Web sites, they conducted a study on a popular microblog to scrutinize how social variables such as social support and relationship quality affect the user's intention of future participation in social commerce. The findings reveal that both factors have a vital influence. Social support and Web site quality strongly affect the user's propensity to utilize social commerce and to keep using a social networking site. These impacts are shown to be

mediated by the nature of the interaction between the user and the online networking site,their findings show that :

1. social support, as measured by informational and emotional support, has a substantial positive influence on behavioral intention to continue using the Web site and the intention to undertake social commerce.
2. social support has positive impacts on relationship quality, which then in turn affects the intention to keep using the Web site and the intention to conduct social commerce.
3. Web site quality also has positive influence on behavioral intention to continue using the Web site and intention for studying social commerce, but its impact size is smaller than that of social support.
4. Relationship quality plays a partial mediating role in boosting the plans to keep using and the intention for conducting social commerce.

The results not only help scholars interpret why social commerce has become successful, but also aid practitioners in developing better social commerce strategy.

(Ping Zhang,2014) also talks about the future of social commerce and the evolution in this sector in particular and provide possible future directions for research and practice , A paradigm that includes people, management, technology, and information components is utilized to give a systematic examination of social commerce development. Their review demonstrates that since 2005, the year the social commerce was incepted, assumptions and understanding of people in social commerce keep moving from a simple and general view of human social nature to a rich exploration with different angles from social psychology, social heuristics, cultural heritage, and economic situations. On the management dimension, business strategies and models expand from the short-tail to long-tail thinking, with created ideas such as branded social networks /communities, presence on the social networks/communities, niche brands, co-creating, team-buying, and multichannel social networks. Terms of technology, IT platforms and capabilities for social commerce expand from blogs, to social networking sites, to media sharing sites, and to cellphones. While Facebook has become a profit-generating platform, developing the idea of Ecommerce, Google and Twitter become formidable rivals with huge potentials. Information in social commerce moves from peer-generated, to community-generated (crowdsourcing),

to buyer and marketer co-created, and to worldwide crowdsourced where his examination identifies many conceptualizations, terminologies, attitudes, and perspectives regarding social commerce and its link to other well-known concepts like as e-commerce.

D .Tolstoy, et all (2021) believes that The retail business is one where digital transitioning and the relevance of e-commerce is particularly obvious. In this industry, digital forms of setup , such as business websites, are mostly replacing or supplementing traditional establishments, such as storefronts. Self-service options, appealing online sales platforms, accessible payment options , and speedy and low-cost deliveries are among the new demands that consumers are making.

E-commerce, which is described as "the trade of products or services via computer networks such as the Internet," has undoubtedly opened up new worldwide investment opportunities for retail SMEs. Many retail SMEs, on the other hand, are still constrained by a lack of resources, which may limit their ability to benefit from e-commerce sales channels. According to several research, SMEs lag behind larger businesses when it comes to the adoption a nd use of sophisticated digital technology and e-commerce. 2017 (Organization for Economic Cooperation and Development).

One rationale is that e-commerce necessitates a significant reorganization of traditional business models and activities. As a result, older and more established SMEs may view digital technology installation to be costly, time-consuming, and technically hard.
Because the retail business is fast becoming a digital industry, researching how retailing SMEs use e-commerce to develop abroad has a lot of learning potential , the Baby Company for example had to make significant original investment to establish the website and logistics related to online sales when it ventured into e-
commerce on a global scale; it is important to note that the level of incrementality and low risk-acceptance recommended effectuation models in regards to investments is not applicable in this case because the company committed firmly to the e-commerce strategy. The website's original goal was to increase total revenues and promote better penetration into key areas. However, the corporation did not completely consider its consumers' buying preferences, such as the fact that parents in many areas still prefer to check out things in physical stores, including such baby carriers. Managers also discovered another approach to generate value from the website while not functioning as a direct sales driver. The investment has paid off because the website has evolved

into a potent marketing tool, resulting in increased brand recognition and product awareness, such as through customer participation in communities. The company was not required to undertake costly cross-market coordination of internet sales efforts, allowing it to focus on developing a worldwide consistent and uniform brand. By being able to closely monitor how its brand is utilized and communicated online, the company has been able to reduce transactional risks in the distribution chain, the past case reveals that Company should uses its presence online not so much as a prompt for e-commerce, but also as a branding device, in line with Sarasvathy et al's (2014)findings into how entrepreneurs cope with unpredictability and contingencies in multinational operations. Because the logistic infrastructure of e-commerce is managed by pre-existing wholesalers, no divestitures were required as well as the importance of forming international e-commerce has become more incremental and risk averse as the venture has grown; it has capitalized on early adversity by making small, but continuous, subsequent adjustments to its website to better resonate with customer needs, as well as gaining more knowledge about customer behavior.

While it is unclear whether strategic decisions involving the e-commerce channel are always the best from an economic standpoint, the Baby Company plainly demonstrates that the competencies built during the process have at the very least driven the endeavor. The company has discovered that leveraging the online as a platform to deliver content about parenting, communicate the brand, and direct customers to physical locations can successfully complement as well as provide synergies with in-store sales. The empowered to create well-informed choices in this regard is based on existing business encounters and experiences.

Also (R.Mangiaracina,2019) mentioned some important examples as from E-commerce as Covisint, a B2B marketplace in the automotive sector, and eBay, which is primarily meant to be a customer marketplace enabling C2C and B2C transactions, but also supports B2B transactions, are two notable instances. These marketplaces connected buyers and sellers, enabled the interchange of information, goods, services, and payments, and served as an institutional foundation for market activities.

The acceptance, governance, design, success, and economic impact of electronic markets have all been studied in the literature as he notice that recent research has begun to study performance using various theoretical techniques, including a strategic capability approach as electronic markets can eliminate many of the competitive advantages of larger organizations, allowing smaller businesses to discover different markets, enhance communication, and identify suppliers at a lower cost. Previous small business research has looked at the advantages and disadvantages of SME involvement in electronic markets, factors that influence SMEs' buyer–supplier relationships in marketplaces, and the acceptance and failures of electronic markets by SMEs as SME-
owner innovativeness, REM ownership structure, and democratic accountability that engenders trust and builds critical mass were found to be significant factors affecting the success of government-supported SME-
REMs in a research of regional INTERNATIONAL JOURNAL OF ELECTRONIC COMMERCE 163 electronic marketplaces (REMs) was using to encourage the implementation of e-commerce by SMEs. The relevance of innovation and governance was also discovered in an investigation of the failure of nonperforming B2B exchanges targeted at all sizes of firms.

According to (R.Mangiaracina,2019) the numerous studies on electronic marketplaces and SMEs is extremely limited, and the majority of this literature tends to focus on exchanges and efficiency instead of information sharing, knowledge sharing, and social inclusion, all of which are critical features of SME e-
commerce platforms, the development of electronic markets for competitive edge and the utilization of SMEs as service providers are two recent studies that look particularly at SMEs and electronic marketplaces, information exchange across SMEs is also addressed in the interorganizat ional system (IOS) literature.

The study of knowledge acquisition in SMEs through participation in an online network discovered that trust in online communities is driven by demand as rather than being passive users of information, his study found that an online learning network or community evolved better when SMEs could interact according to their own terms with their information professionals in an active communication process. An significant conclusion was the establishment of a "digital enterprise community" enabled by one or more intermediaries to form an e-cluster, and this research

projected that such communities would form in the SME sector. One of the benefits of being a part of a community is that it is neither hierarchical nor market-like, and it blends characteristics of competition and collaboration ,As a result, SMEs find the networking opportunities provided by the community appealing ,Because knowledge is scattered across numerous companies, and firms see an increasing need to work with other firms, the demand for information exchange is common "An e-business application, pushed by a trusted third party, that engages a considerable number of SMEs by addressing a key shared business concern inside an aggregate," according to the authors of a study on new forms of SMEs collaboration.

(Brown and Lockett's research,2006) is important because it shows the digital divide that exists between major corporations and small businesses, as evidenced by the widely disparate level s of e-business adoption. The evaluation of these networks as a new type of IOS as well as a new business model is a major addition of Lockett and Brown's work. In other words, they recognize and regard emerging digital platforms for SMEs as business models.

(R.Nadaraja and R. Yazdanifard,2013) mentioned some of disadvantages from his prospective where he considers that social media has grown pervasive and most crucial for social networking, content sharing and internet accessing. Due to its dependability, consistency and immediate qualities, social media creates a wideplace for enterprises such as internet marketing. Marketing which happens through social media is referred to as social media marketing. Social media marketing has made feasible for firms to contact targeted customers easily, effectively and instantaneously. Apart from that, social media marketing also confronts numerous problems in the area for example The online environment creates not only opportunities, but also complications and challenges for the social media .

Media marketing process. The transparency of the web makes online information available to all audiences, and reinforces the need for consistency in the planning, design, implementation and control of online marketing communication where There are five main disadvantages need to be considered on social media marketing, which are:

1. Time intensive : social media marketing requires a significant time investment where corporation must comprehend the required time commitment and either accept or reject that obligation.
2. Trademark and Copyright Issues : Companies should monitor their own social media outlets as well as third-party social media platforms to guarantee that persons supplying content through the media outlets are not exploiting their intellectual property where some Issues could appear that is related to Trademark and Copyright Issues and could affect user-experience.
3. Trust, Privacy and Security Issues : privacy issues have led to a public relations fiasco for some large social media campaigns leading in considerable brand image damage which could affect the whole organization.
4. User-Generated Content (UGC) :UGC allows Internet users to leave comments in a variety of formats, including photos, videos, podcasts, ratings, reviews, articles, and blogs; however, certain precautions must be taken to reduce legal risks involved in marketing campaigns that encompass the dissemination of user-generated content via social media.
5. Negative Feedbacks : Negative post reactions are one feature of social networking that is extremely detrimental to marketing initiatives. Unhappy customers or industry rivals may upload insulting or abusive images, posts, or videos, and there is nothing a marketer could do to prevent this from happening.

(N.GAJJAR,2013) Talk about other prospective where he talk about consumer behavior where A marketing viewpoint is about convincing a customer because they want your goods, even if they don't at first. As a result, marketers must understand how customers react when they have been exposed to certain advertising strategies and messages. As an example: Consumer behavioral theories, such as the stages of innovation diffusion, are important for marketers because they help us understand how various market groups with varied buying and thinking qualities determine whether or not to acquire a product. His study of customer behavior is centered on consumer purchasing behavior, with the client having three separate roles: user, payer, and buyer. Consumer behavior is difficult to forecast, according to research, even for specialists in the industry. "Customers" play a key role since they are the individuals who ultimately BUY the organization's products and services, and the company is constantly on the move to get them to buy so that it may gain income. It's critical from both perspectives.

But he conclude that there are some variables that have been identified as the most important general influences on Consumer Behavior as following :

1. External Environmental Variables Influencing Behavior: These are the elements controlled by external surroundings, such as the following, that constitute the foundation of external effects over a customer's thinking.
2. Social Class and Social Group.
3. Culture and Subculture.
4. Family and Inter-Personal Influences.
5. Other Influences: (which are not categorized by any of the above six, like geographical, political, economic, religious environment, etc.).

(Remi Trudel,2018) with a topic of Sustainable consumer behavior he represent at as behavior that tries to meet current needs while also benefitting or reducing environmental effect. Furthermore, comprehending sustainable consumer behavior is critical for any paradigm changes in how society addresses environmental issues. synthesizing and arranging studies over the previous 20 years, and investigating the psychological factors of long-term customer behavior

The following four areas of scientific investigation have dominated study agendas: (a) cognit ive obstacles, (b) the self, (c) social impact, and (d) product attributes concluding that understandin g consumer decision-making is also essential for enabling consumers to act in more environmentally friendly ways. Insights gained from research into sustainable consumer behavior are critical for green strategy at both the government policy and corporate levels. It is critical that policymakers and organizations committed to sustainability understand how and why people make decisions, consume, preserve, and dispose of things that have an impact on the environment.
Not to mentioned the Covid 19 pandemic where some researches connected it with consumer beha vior where (J. Sheth,2020) mentioned that The COVID-19 epidemic, as well as the lockdown and social separation laws, have impacted consumer purchasing and shopping behaviors. Consumers are learning to adapt and form new habits. For example, if a customer is unable to travel to the store , the business will come to them. While customers return to previous habits, it is probable that they will be altered by new rules and processes in the way they shop for and purchase goods and services . Technology advancements, shifting demographics, and inventive ways consumers have learnt to

deal with the blurring of work, leisure, and education barriers will all contribute to the emergence of new habits like public policy. Just as we are accustomed to security checks at the airports after 9/11, there will be extra screening and boarding processes including checking the temperature , testing for the presence of the virus and boarding the aircraft. All airline companies are now introducing new processes for boarding and disembarking customers as well as dining services. As discussed earlier, public policy to discourage or promote consumption is highly crucial to influence future consumptions. (N. Arora et all,2020) also talked about consumer behavior is changing amid COVID-19 where it's measured affection of Covid-19 on in five key ways, some of which will have a lasting impact :

Shift to value and necessities

Many consumers internationally are continuing to see their salaries shrink and hope in an economic recovery hasn't seen a revival Consumers are more watchful of their spending and trading down, as they anticipate COVID-19's effect to endure four-plus months Consumers aim to move their spending mostly to basics, such as shopping and home supplies, and cut down on discretionary areas.

Flight to digital and omnichannel

Most categories have witnessed more than 10 percent increase in their online customer base during the pandemic and many customers indicate they expect to continue buying online even after brick-and-mortar shops reopen, In countries that had strong online conversion rates before the pandemic (e.g., UK and the US), e-commerce continues to expand across all categories.

Shock to loyalty

For specific items and brands, COVID-19 created supply-chain disruptions, enabling customers who couldn't locate their desired product at their preferred retailer to modify their buying behavior, including trying new brands and places Across the world, value was the major incentive for customers exploring a new brand or location to buy.

Health and "caring" economy

Across nations, poll respondents indicate they purchase more from firms that have healthy and sanitary packaging and care for their staff The measures that corporations take during this epidemic are likely to be remembered for the long-term.

Homebody economy

In most nations, more than 70 percent of consumers don't yet feel secure resuming their " normal" out-of-home activities While many customers intend to go out for grocery shopping and socializing with friends, they are keeping away from travel and crowded locations.

(K.Akram,2020) related consumer behavior to Islamic prospective which is important to our study which toke place in Islamic country, Akram stated that A consumer who optimizes utility acts among four dimensions: moderation, excess, waste, and niggardliness. These parameters acquire various connotations in each socioeconomic stratum. A complicated issue is the context of consuming which might be private, societal, or public. For each social stratum and for each context, these dimensions have various meanings.

The study advocates adopting the technique of behavioral economics for identifying the aspe cts of consumption. It elaborates the notion of marginal tendency to consume into four proclivities: marginal tendency to moderation, extravagance, waste, and niggardliness.That demands re-defining the rule of demand, resulting to 4 curves rather than the one generally seen in the economic textbooks where the article elaborates the notion of marginal propensity to consume, which is the foundation for defining consumption in any culture that shows it's relation to the supplier behavior.

(A,Di Crosta,et all(2021)). Also discussed Psychological factors that affects consumer behavior during the COVID-19 pandemic where various national governments imposed full or partial lockdowns for the duration of the virus's transmission. Although these rigorous precautions have shown to be effective in preventing the virus from spreading further, they have had a significant impact on the global economic system, causing an unprecedented shock to economies and labor markets. In fact, the COVID-19 pandemic is far more than merely a health catastrophe, since it has had a significant impact on society and economy. More than any other disturbance in this decade, the COVID-19 pandemic has impacted the way we work, communicate

, and shop. This severe circumstance has profoundly changed consumer attitudes and habits, as evidenced by a review of economic statistics on sales. The propagation of the COVID-19 pandemic , according to a Nielsen Company study, resulted in a worldwide apparent change in levels of spending related to consumer behavior. In particular, there has been an increasing trend in the sale of necessities: customer priorities have shifted to the most fundamental needs, such as food, hygiene, and cleaning items. Throughout the epidemic, consumer shopping choices in Italy have shifted. When COVID-19 first swept over Europe, Italy was the first country to experience it (between March and April 2020). Consumption patterns tended to be obsessive in its pursuit of important goods, particularly those related to combating the infection, such as protective gadgets and sanitizing gel. The pandemic altered consumer behavior, resulting in lower sales for some market segments (e.g., clothing) and higher sales for others (e.g., entertainment products). Furthermore, research has shown that rising unemployment and lifestyle uncertainty experienced by Italian workers during the epidemic had a negative impact on their purchasing behavior.

(A,Di Crosta,et all(2021)) believes that it should come as no surprise in a such a dire scenario , the need to purchase essentials takes precedence. However, little attention has been paid to the research of antecedent psychological elements, such as attitudes, feelings, and actions, that underpin changes in consumer behavior during the COVID-19 epidemic. Understanding the psychological aspects that influence consumer behavior and product choices, on the other hand, can be critical for two reasons. First, such research can help us better understand the underlying causes of changing consumer preferences in the unusual COVID-19 environment. Second, the findings could aid the development of novel marketing tactics that take psychological variables into account in order to match actual consumer demands and feelings. On the one hand, businesses may use this information to boost sales during the COVID-19 pandemic. Furthermore, comprehending these demands and feelings may be critical to improvin g the market's preparedness for future pandemics and calamities. Consumers, on the other hand, could benefit from this new market's recognizing and responding to their true needs and feelings. As a result, in the event of a future emergency, factors including such worry and a perceived shortage of critical items may be minimized, while consumer well-being and positive self-esteem may be enhanced. Furthermore, there are two major components of the current study that are innovative. First, past research has shown that different crises have varied effects on people's

propensity to acquire needs and non-necessities products. He performed a nationwide survey of the Italian population to investigate customer behavior during the COVID-19 pandemic lockdown. Because the COVID-19 emergency has stressed the utility of essential commodities (e.g. food, medications, etc.) against non-essential goods (e.g. luxury things such as clothing and accessories) , he divided products into necessities and non-necessities in our study.
Changes in expenditure levels (necessities vs. non-necessities) have also been evaluated to corroborate COVID-19's impact on people's spending.
Furthermore, he tried to define the relationship among changing consumer preferences and change s in spending levels. Finally, he concentrated on the psychological variables that influence consumer behavior towards to the target products. He expected to see an increase in purchases, with a more obvious increase in essential products, based on the literature as he looked into the mood states and affective responses to the crisis, perceived economic stability, self-justification for purchasing, and personal characteristics to see if there were any bases to consumer behavior. All of these criteria have been linked to consumer behavior in prior studies, but to our knowledge, no study has taken them all into account at the same time. As a result, he used an integrated strategy to investigate the contribution of various psychological elements by taking into account their mutual influence in this study. He theorized that during the COVID-19 epidemic, based on the empirical evidence and theoretical accounts described above:

- Changes in consumer behavior would be explained by higher levels of anxiety and COVID-related fear, which would increase the desire for purchasing needs.
- Increased stress levels would cause consumers to preserve money or, on the other hand, would enhance a need to spend money on needs (i.e., utilitarian shopping).
- Higher levels of melancholy state are linked to a greater desire to purchase both needs and non-necessities.
- A stronger need for purchase, especially for non-essentials, would be connected with greater use of self-justification tactics.
- An growth in the need for both needs necessities and non-necessities is linked to a higher perception of economic stability.

(Rahmanov et all , 2021) also discussed consumer behavior in digital era in light of covid 19 where his paper's major purpose is to investigate the differences that have begun to influence

consumer behavior inside the digital era since the introduction of COVID 19. The events surrounding the epidemic, which resulted in increased social distance and total lockdown, surely have an impact on not only the economic status of territory and countries in general, but also on individual behavior. As a result of the current scenario, more and more consumers are being pushed to meet their demands through digital technologies, and this process has certain unique characteristics. The results of an analytical and comparative analysis of changing consumer preferences in the digital space since the pandemic's commencement are presented in this article. Trends in customer demands in the research categories were investigated using Google Trends. The practical study was based on an examination of changes in consumer behavior and interests in the direction of tourism and recreation, with data from an Azerbaijani citizen sociological survey used to investigate the possible influence of COVID-19 on the tourism sector.

A team of academics from the University of Northampton (UK), the National Institute of Geophysi cs, Geodesy and Geography – Bulgarian Academy of Sciences, and the University of National and World Economy conducted the survey from April 13 to 21, 2020. (Bulgaria). According to the study's findings, new challenges to the development of marketing in the digital environment have emerged, including: digital tools have experienced rapid and unpredictable development since the COVID-19 pandemic, and remain in high demand even after restrictive measures have been eased; entrepreneurship was not prepared for such rapid transformation; and after the first interactions in the digital world, the consumer has a stable experience of interaction with the brand.

Based on the findings, an algorithm for developing consumer interactions and creating trust in the digital world is developed. The findings of his research might be used to help representatives from various levels of the business structures and governments achieve their marketing objectives.

Also one of the most important articles is that one that was titled by (A.Salman & M.Sahi, 2017) that aims to Understanding Consumer Behavior in E-shopping in Arab region -Iraq- (A.Salman & M.Sahi,2017) Believes that E-shopping gives a perfect illustration of the commercial revolution. Electronic Commerce has made life easier and more inventive for a person. Consumer Behavior via e-shopping varies from the spot market. his paper's purpose was to evaluate the consumer behavior in electronic shopping and investigates the aspects which impact consumers' behavior in e-commerce at Iraq where All consumershave their particular demands and requirements for services and items that It's necessary for all eretailers to recognize

and understand in their shoppers. The Issue is that the great majority of the on-line vendors normally don't really know as much about the cultural and sociological standards concerning Iraq a nd Iraqi customer behavior. Where customer behavior depends on perceptions, its income distribution, age, language, economic component, education, and other characteristics , taking into consideration Key factors influencing the consumer to shop online:

1-Web search engine

Since search engines largely help users' judgment to rank sites, electronic merchants must guarantee website quality will meet and fulfill the individual search engine's needs.

2-Convenience

The convenience aspect states that it is simple to search or explore the information through In ternet is easier than conventional shopping where Online consumers possess various advantages in terms of convenience, for instance, flexibility, less time-consuming, very little physical effort.

3-Price

Price was a major issue for customers, on E-shopping.

4-Time-saving

E-shopping conserves time additionally it can decrease the time necessary to visit the store but as it demands some time to acquire items delivery, Nevertheless, the timesaving problem might be identified via dimensions.

5-Security

Security is among the features which inhibits buying as they say that There's a High Number of consumers who do Not Desire to purchase online Due to Their worry with the Safety of the information.

6-Website design

Web site customer service, web site privacy - security and web site reliability/fulfillment are essential qualities that impact the understanding of user or the buyer of online purchasing.

7-Non-delivery risk

Possibility loss of delivery is when goods are damaged or destroyed and cause worry in buyers that they would not acquire their commodities on the specified time frame that the business stated .

The study topic in his work is the manner that customers respond his questionnaire about e-shopping and demonstrate that the majority of Iraqis' are not performing e-shopping with 47% , consequently, it's evident that the trend of e-shopping wasn't very well recognized in the Iraqi economy as largely and whole folks, generally visit the store before e-shopping.

Also (A. Sultan et all ,2018) .talked about Technological factors and e-commerce adoption among small medium enterprises in Iraq where he Sees that Organizations gain significantly from their investment in e-commerce technology, despite some research claiming that e-Commerce technologies have little advantage for Small and Medium Enterprises (SMEs) in developing nations. Furthermore, despite the fact that e-business is likely to have far-reaching implications for the global market.

there is a lack of research that has explored e-business growth in the Gulf region, in which he believes that empirical studies into e-commerce problems are still in their infancy among Small Medium Enterprise in manufacturing in developing countries, particularly in Arab states. According to the Iraqi Ministry of Planning and the National Investment Commission - Iraq NICI, sluggish adoption of technology among Iraqi SMEs leads to less successful business practices. As a result, the Iraqi government encourages Iraqi SMEs to use the Internet to obtain a competitive edge and enhance company operations. According to a 2016 survey issued by the Iraqi Ministry of Planning, 80 percent of SMEs had Internet access but had not yet implemented e-commerce. The technical background for SMEs' adoption of technology in Iraq emphasizes the many technological variables that impact adoption. The adoption process is likely to be influenced

by technical variables such as the relative advantage that the company will get via adoption, compatibility, and intricacy of the necessary technology with their current business systems which we contribute to encourages policymakers in the Iraqi government to inform small and medium-sized businesses about the competitive advantage gained via e-commerce adoption and the creation of new projects They should also be financially supported and given improved infrastructure.

(E. Harash,2014) also discuss SMEs in Iraq but in financial POV where his study was undertaken to identify the key issues confronting small and medium-sized enterprises (SMEs) in Iraq in their quest for finance to undertake various activities, be it overall business activities or having to carry out expansion projects, all in the name of fulfilling the objectives of being successful entrepreneurs and contributing to poverty reduction. There are financial companies eager to offer financing to small and medium-sized firms (SMEs), but Iraqi SMEs are unable to fulfill these financial institutions' standards. One of the most important of these criteria is the provis ion of collateral, which most small and medium-sized businesses (SMEs) cannot offer, Small businesses have far greater rates of employment development, but they are also more prone to fail or stay stagnant owing to financial and institutional restrictions. The importance of the SMEs sector is acknowledged in economies across the globe, regardless of the economy's level of growth . The contribution to growth, job creation, and social advancement is highly appreciated, and SMEs are seen as a key component in a winning formula for attaining economic growth, which is crucial to examine in our research.

(A. Alhamzah, & E.Bilal ,2019) also pointed some cases for SMEs in Iraq from financial prospective by Relying on a model for organizational context inside work groups and a job perspect ive for socially responsible behaviors, they developed and tested a model for small and medium enterprise success in the workplace that explains some of the factors that contribute to the success of small and medium institutions. The sample consisted of 217 employees from small and medium -sized businesses in Iraq.

It was discovered that intellectual capital integration and intentional junior auditees' turnover were related to small and medium company success within the work place for company members; additionally, there had been a clear link among accountants' turnover and intellectual capital integration and small and medium company success, as well as an indirect influence mediated by the financial knowledge management system within work groups, all of these financial analysis

give us a clear view regarding the industry in Iraq and make us ready to implement the best tools regarding given information's.

(H. Al-Lamy et All,2019) also talked about IT infrastructure and SMEs in Iraq as he believes that In the 4.0 industry, information technology has emerged as a significant development innovation that transforms the production and management processes, decreases human effort, and increases the effectiveness of organizations. The purpose of this research is to discover the effective information technology elements that are connected with the performance of small and medium-sized businesses in Iraq. A survey was sent to 162 SMEs, and the data was analyzed using multiple regression. His study's findings emphasize that IT infrastructure (IT connection, modularity, and personalization) has a favorable influence on company performance, particularly in terms of preparedness for IR 4.0 where According to the findings of his study.

Information technology infrastructure has a crucial role in increasing business performance, particularly for SMEs in less developed nations where the literature is still scarce. More crucially, it was carried out in nations with volatile environments, such as Iraq. This addition will provide fresh evidence and broaden the scope of resource-based perspective theory.
Furthermore, this study should help Iraq's economic policy. It will be a valuable guide on how to improve the performance of SMEs, which will have a good influence on the country's economy. This enables SMEs to strengthen their competiveness in the micro and macro markets, particularly in light of the advent of globalization and fast competition growth.

Through information technology, SMEs may overcome physical contact, increase service quality, and save costs. This allows businesses to gain a competitive edge.

Also (T.Adisorn and L. Lasantitham,2021) Describes what is consumer behavior nowadays where the majority of consumers utilize e-business internet platforms. However, customer behaviors in terms of happiness and intent to buy and repurchase based on the online shopping experience must be investigated since online shopping platforms continue to affect their use patterns. Their paper provides a retentive consumer behavior evaluation model of online shopping platforms by combining the Technology Acceptance Model (TAM) and the Online Purchasing Choices Processes with two input factors: Trust and Quality. A questionnaire created using all of

the criteria from the suggested conceptual model. The data is utilized to examine causal linkages using structural equation modeling. The findings revealed that the proposed model TAM that used over UTAUT model which it can explain the relationship between consistent E-Business platforms and online trading users' purchase and continue to buy (re-purchase or recommend) behaviors, and it can also be used to assess purchase behavior and reiterating purchases of online consumers via three different types of E-businesses: E-commerce, M-commerce, and S-commerce. The findings of this research will assist online retailers in strategizing the creation of platforms tailored to the demands of their customers.

Neitherless , it's important for us to study and review literatures that used UTAUT model to make the best implementation In our study :

(M. Abdelhamid and R. Sharman,2017) used UTAUT model in their paper to investigate if Health Information Exchange (HIEs) can increase consent rates by offering PHR services to patients and making them active participants in the HIE system. The paper makes a theoretical contribution to research by extending the UTAUT model with two types of trust that are critical for patient consent.

We could see UTAUT model also used by (A.Aggarwal , et All,2019) to utilize the framework to identify and create a quantitative technique to identify elements (and their respective influence on) the purchase intent of a domestic RT solar buyer using the unified theory of acceptance and application of technology 2 (UTAUT2).

Also (M. Osifeko,et All,2019) If properly accepted, implemented, and deployed, e-health, a technology instrument, has the potential to mitigate the plethora of issues confronting Nigeria's healthcare industry. To enhance the use of technological instruments, an assessment is frequently carried out using a Technology Acceptance Model. The Unified Theory of Acceptance and Use of Technology (UTAUT) paradigm is one of them. However, the various economic, social , and political situations highlight the necessity to alter these frameworks to account for the uniqueness of the studied area. A modified UTAUT model is constructed in this research to assess the usage and acceptability of E-health services in Lagos, Nigeria.
Based on criteria highlighted in a focus group and current research, the study creates a modified

UTAUT model. The created model was verified using data on E-health service utilization acquired by questionnaire from 10 healthcare institutions in Lagos State where the findings indicate that social influence has the greatest effect on E-health technology adoption in Nigeria, implying that most users would utilize the system if pushed by their colleagues or superiors.

Also (P.Patil,et All,2020) issued a paper that aims to Understanding consumer adoption of mobile payment in India: Extending Meta-UTAUT model with personal innovativeness, anxiety , trust, and grievance redressal ,whereas As we march toward a cashless world, mobile payments are the way of the future. Cash is already being replaced by digital transactions in certain areas, but consumers in many developing nations are lagging behind.

The purpose of his research is to uncover the primary variables of consumer mobile payment uptake in India, the nation with the world's second biggest mobile subscriber base. Existing mobile payments acceptance studies have mostly used the Technology Acceptance Model (TAM), which was designed primarily in an organizational environment and has been criticized for using a deterministic approach that does not take into account the unique characteristics of users.
As a result, his research adopted the meta-UTAUT model with individual difference variable attitude as the core construct and expanded it with consumer-related concepts which including personal innovativeness, anxiety, trust, and grievance redressal. Furthermore, attitudes, social influence, and favorable circumstances all had a substantial impact on intention to use.
The main value of this research is that it reaffirms the essential significance of mindset in consumer adoption studies and examines use behavior, as opposed to most current studies, which solely look at behavioral intention.

Also (S. Sharma,et All,2020) explored consumer behavior to purchase travel online using UTAUT framework where she aims to examine trip purchasing intentions in Fiji and the Solomon Islands, the unified theory of acceptance and use of technology (UTAUT) paradigm will be used. The UTAUT paradigm is expanded to include trust and attitude. This enables for the testing of new partnerships. Both are categorized as Small Island Developing States (SIDS). These two nations were selected as they're both exemplars for Pacific developing countries, which are often disregarded in the literature. As a result, the study broadens the applicability of the survey

instrument and the UTAUT model, BI is also employed in this research to evaluate the customer's buying intent.

Despite the fact that BI has been studied extensively as a good predictor of real behavior and a proxy variable, it may not completely match actual behavior. As a result, future research may look at consumers' real adoption behavior in this environment.

This research only looked at Fiji and the Solomon Islands. This research would be fascinating to duplicate in various nations. It is critical to emphasize that the impact of PE, EE, SI, PT, and attitude on customers' intention to buy online is likely to differ depending on the circumstances.

Also one important paper done by (P. Isabel & C. Carlos,2011) which When research on individual information technology acceptance were established, and various models were constructed based on the results from those studies Some were founded on sociology and psychology notions that had been transferred into the domain of technology. Others were the outcome of already existing Information Technology Acceptance Models that were given a new design and determinants. All of these models seek to identify and characterize the determinant contributions to information system user agreement, as well as how this value might be a determinant component in information system adoption and success. This research focuses on the Complete Theory on Users Acceptance and Use of Technology, or UTAUT, a synthesis model, and the contributions it has made to this field. A survey on Machine Vision Audit Tools and Techniques, CAATTs, and their adoption among auditors will be given, using UTAUT as a reference. The purpose of this work is to add additional determinants/moderators to the Unified Theory on Users Acceptance and Use of Technology Model and CAATTS, as well as to conduct a research on the profile of Portuguese Auditors, They also designed the proposal with two particular goals in mind: first, to characterize the Portuguese internal auditors' degree of intention on CAATTs acceptance using the UTAUT model, and second, to investigate the contribution of tree new determinants in this context. These variables were classified as "Curriculum and formal education, "Professional Association Groups" and "Standards and legal changes effect". Because this is a work in progress article, we want to carry out these tasks and develop a new model based on the effect of these factors.

We could conclude literatures by this paper by (A.AL-Muwassefi,2021) where he aims to describe the Technological utilization and applications have become unavoidable, especially in light of global travel limitations (after the COVID-19 pandemic) that coerced digitized platform use over physical settings for minimum health concerns, Where his research attempts to suggest the newly built Best Deal app (mobile shopping) application) that provided consumers with instant access to information about discounted products and a finish the purchasing procedure The aforementioned application would be beneficial as to many customers, particularly with the COVID-19 limitations that required the majority Users should use technology to make purchases. In this line, the findings of this research emphasized the need to create the Best Deal mobile shopping application and do research The Unified Theory of Consumer Intentions supports behavioral intention indicators among Iraqi customers and here Acceptance and Utilization of Technology (UTAUT2). Data from 194 respondents was analyzed. The study's findings were obtained using partial least squares structural equation modeling (PLS-SEM) and by combining multiple factors of behavioral intention into a single holistic study model. As a result, his research has provided empirical justification for using the UTAUT2 model, addressing the need to expand it. According to studies which he makes, it is essential to assess human innovativeness as an affecting aspect in the new technological system. Based on prior research, the current study has expanded the UTAUT2 model by including personal innovativeness to establish a complete research framework to examine the behavioral intention of Iraqi consumers to use the Best Deal mobile shopping application.

According to (Van den Poel and Lariviere 2005) made an important discovery, which is to find variables for different and diverse inputs that have a significant impact on three important measures that can predict consumer behavior. These measures are the development of customer profit , product cancellation and the next purchase decision for goods through the researchers' use of random forest algorithms. This discovery also enabled them to: Knowing the challenges facing the growth rate of customers, and their studies have contributed to attracting consumers' attention and increasing their loyalty through researchers' use of machine learning techniques.

4. Methodology:

As mentioned before the idea and use of e-commerce is one of the Internet's most far-reaching influences, particularly in terms of business and market models where Social commerce is proved to be a significant topic in information systems, where fast increasing online shops e-commerce platforms assisting in increasing customer engagement and sales. As a result, social media has evolved into a far more significant platform for the retail business. This research examines the impact of social commerce on customer behavior and intention to use electronic purchasing in the Iraqi market, based on the suggested expanded Unified Theory of Acceptance and Use of Technology (UTAUT) model. The purpose of this paper is to analyses crucial elements using an empirical research as well as a quantitative survey questionnaire administered to social media users, with 410 valid responses where we conducted analysis on these responses by using SPSS package All participants can envisage the importance of e-commerce.

The results also showed that the majority of the participants embrace the concept of e-commerce and react favorably to it. Further, the findings highlight that performance expectancy has a positive effect on behavioral intention and the actual use to adopt social commerce. The inclusion into the proposed model of relevant insights obtained from the interviews, the questionnaire, and the focus group ensures that the model has both theoretical and practical validity where study considers the major effect of Iraqi customers' behavioral intentions and their culture on social commerce.

The analysis also considered nine dependent variables, including customer adoption and confidence in social commerce.

4.1 Quantitative method:

Our study adopted a quantitative method as quantitative research approaches stress quantitative approach, mathematical, or numeric analysis of data obtained via polls, questionnaires , and surveys, or by modifying pre-existing statistical information using computing tools. Quantitative research focuses on accumulating numerical data and generalizing across its groups of individuals or to explain a specific occurrence.Knowing that quantitative research deals on statistic s, logic, and an objective viewpoint. Quantitative research emphasizes on quantitative and unchangeable facts and precise, converging reasoning instead of divergent thinking [i.e., the creati on of a range of ideas regarding a study subject in a spontaneous, loose way].

We utilize it for the reasons listed below :

1. The data is generally acquired utilizing organized research tools.

2. The findings are based on bigger sample sizes that really are reflective of the population.

3. The research study may typically be duplicated or redone, given its high dependability.

4. The researcher has a well defined research topic to which objective solutions are sought.

5. All components of the research are carefully planned before information is collected.

6. Data are in the form of numbers and statistics, generally presented in tables, charts, figures, or even other non-textual formats.

7. Project may be used to generalize ideas more extensively, forecast future outcomes, or study causal linkages.

8. The researcher employs instruments, such as surveys or computer software, to acquire numerical data.

9. The main purpose of a quantitative research project is to classify features, count them, and construct statistical models in an attempt to explain what is observed.

The belief that there is a genuine truth that we can objectively assess is, however, problematic . We are all an area of the globe we are studying, and we can't entirely separate ourselves from it. According to historical research, what is examined and what conclusions are generated are impacted by the researchers' ideas and the political/social atmosphere at the time the study is conducted.

Qualitative researchers are subjectivists when seen through the lens of quantitative vs qualitative research. Subjectivists emphasize the importance of human subjectivity in the research process, in contrast to realists' belief that now the reality is out there that can be objectively measured and discovered via study. Reality is formed, at least in part, by us and our observations, rather than being 'out there' to be objectively and dispassionately seen by us.

4.2 When do we use quantitative methods?

If we adopt a practical approach to research methodologies, we must first determine which types of questions are best addressed using quantitative rather than qualitative approaches.There are six categories of research issues for which quantitative research is especially well suited:

One is when we need a numerical response. 'If students have an option, how many of them will pick Experiential English I?' for example. or 'How many English instructors at the Language Institute want to teach Experience English instead of Foundation English?' The requirement for quantitative study to solve this kind of topic is self-evident.

We can clearly see that qualitative, non-numerical approaches will not supply us with the numerical answer we want.Quantitative approaches are also required to study numerical change properly. 'Are our student numbers on the decline?' for example. To discover out, we'd have to conduct a quantitative research.

Audience segmentation may be done using quantitative research. It is accomplished by segmenting the people into groups with individuals who are similar to one another yet different from one another. Quantitative research is often used as a follow-up to a qualitative study to assess the size of an audience group, to quantify findings gained in a qualitative study, and to validate data collected from a qualitative study.

Quantitative research may also be used to quantify views, attitudes, and actions in order to determine how the general public feels about a topic. For instance, when we need to know the actual number of individuals who believe a specific way, establish baselines (e.g., to gauge consumer opinions about an issue before to a campaign), or guarantee that students may provide comments or suggestions to a new course.

Quantitative research may be used to explain a variety of occurrences. For example, 'What va riables predict fourth-year students' general English proficiency?

' 'What variables are linked to changes in student English accomplishment over time?' or 'What factors are connected to variations in student English achievement over time?'

This kind of subject may be effectively investigated using quantitative approaches, and numerous statistical techniques have been created to allow us to predict scores on one element or variable (for example, student English proficiency) based on scores on one or more other factors and variables (e.g. learning habits, motivation, attitude).

The testing of hypotheses is the last activity for which quantitative research is particularly well suited. We could wish to explain anything, such as if there is a link between student success, self-esteem, and social background.

Thus, through a thoroughly literature review, an survey and interview schedule was developed and administered to procurement experts within the procurement and construction industry with the aim of evaluating the trail of E-procurement.

These professionals were selected based on their in-depth understanding and wide range of professional experience. This was done by expanding and exploring the experience of the practitioners in relation to the phenomena under consideration. This helped in evaluating the trail with real data that gathered in Jordan.

Before Knowing what Method do we use to Scale our results it's important to know that Language scholars usually define the many ways they measure things quantitatively in terms of measurements, which come in four varieties: nominal, ordinal, interval, or ratio scales. Each is valuable with its own way for measuring distinct elements of language instruction and learning.

4.2.1 Nominal scales classify.

A nominal scale might be derived from natural classifications like gender (male or female) or manmade categories like competency (elementary, intermediate, or advanced competence groups) (elementary, intermediate, or advanced proficiency groups). Nominal scales are also often termed categorical scales, or dichotomous scales (where there are only two categories) (when there are only two categories).

4.2.2 Ordinal scales arrange

Or rank objects. For instance, an item may ask students to score ten sorts of school activities among most to least engaging (from 1 to 10). (from 1 through 10). The most intriguing activity is first, followed by second, third, etc. (sensibly, ordinal scales are most typically stated as ordinal numbers) (sensibly, ordinal scales are most often expressed as ordinal numbers). While the order is evident on such a scale, it is just not apparent what the distances are along the ordering. Thus the 1st activity may be significantly more intriguing than the 2nd, but the 2nd activity might be just a bit more interesting than the 3rd, and so forth.

And hence the 1st activity may be significantly more intriguing than the 2nd, but the 2nd activity might be just a bit more interesting than the 3rd, and so forth. In summary, ordinal scales show us the order, but not the gaps between the ranks. Such ordinal scales are also occasionally termed ranked scales.

4.2.3 Interval scales

Depict the order of things, but with equal intervals here between points on the scale. Thus, the gap among scoring of 50, 51, 52, 53 and so forth are all believed to be the same all throughout the scale. Test scores are frequently considered as interval scales in language study.

4.2.4 Scales based on Likert items

Are also typically considered as interval scales in our profession. Ratio scales vary from interval and ratio in that they have a value 0 and points along the scale make sense as ratios. For example, a scale like age might be zero, and it makes sense to conceive of four years as twice as old as two years.

Researchers are typically interested with the distinctions among these scales of measurement due to their implications for making judgments about which statistical analyses to apply effectively for each. At times, they are described in just three categories: nominal, ordinal, and continuous (i.e., interval and ratio are compressed into one category) (i.e., interval and ratio are collapsed into one category).

The favorable aspect of the Likert Scale is that they are the most widespread approach for survey gathering, hence they are simply understood. The replies are readily measurable and subject ive to calculation of some mathematical study. Since it does not compel the participant to offer a straightforward and definite yes or no response, it does not compel the participant to take a side on a certain issue, but enables them to react in a levels of association; this makes question responding easier on the responder. Also, the replies offered suit neutral or unsure sentiments of individuals. These replies are relatively straightforward to code while gathering data because a single number indicates the participant's response. Likert surveys are also rapid, efficient and economical means for data collecting. They offer tremendous adaptability and may be sent out by mail, over through the internet, or handed in person.Attitudes of the people regarding one single thing in actuality exist on a wide, multi-dimensional continuum. However, the Likert Scale is uni-dimensional and also only affords 5-7 alternatives of choosing, and the distance among each choice cannot possibly be equidistant. Therefore, it fails to assess the genuine attitudes of respondents.
Also, it is not uncommon that peoples' replies will be affected by earlier questions, or will primarily focus on one main goal of the proposed (agree/disagree). Frequently, individuals avoid picking the "extremes" alternatives on the scale, due to the obvious negative overtones linked with "extremists", even though an extreme decision would be the most correct.

Because it includes the measuring of abstract psychological notions, questionnaire formulation is a difficult task. Item construction must be done with great care since assumptions about the respondents are formed based on the data generated by the items. Understanding the concept, generating questions, identifying the outcome space, describing the measurement model, and collecting input and piloting the questionnaire are the five phases discussed in this work. These processes may lead to the creation of Likert-scale surveys which are more likely to provide trustworthy data and provide more accurate interpretations.
This is because (a) an effort was made to understand the construct, (b) great care was taken with item development, (c) an appropriate Likert scale was chosen, (c) the questionnaire items were reviewed by a variety of people, (d) the items were piloted, and (e) careful numerical analyses were performed to ensure item quality.

4.3 Method Used in Ranking Questionnaire

Finally, we believe that Likert-scale questionnaires should be used in conjunction with other data-gathering methods in order to obtain a more comprehensive understanding of the construct under inquiry and to overcome the inherent limitations of numerical Likert-scale data , namely, that numerical data will provide a full picture of educational phenomena.

Data-gathering methods such as open-ended inquiries, observations, interviews, and objective testing should also be employed to get a more full picture of the occurrences. There's a better chance of correctly comprehending a concept and arriving at more acceptable interpretations and conclusions if you look at it from different perspectives.

Upon What mentioned previous it was done by measuring respondents' perceptions on the level of significant using a Likert items, where: 1 = insignificant (factor), 2 = slightly significant, 3 = quite significant, 4 = very significant and 5 = extremely significant.

Thus, the numerical representation, statistical analysis and subjective were the underlying in dividuals' perceptions.

4.4 Research sample

The interview scheduled was administered to top industry players as Employees of the MPWH, Consultatives, Contractors, who have sufficient practical experience in procurement practices which reach more than 15 years of experience in the filed, which were also administered to more than100 respondents involving procurement practitioners and managers in the Jordanian public construction sector.

Respondents had enough working experiences as more than half of the total sample size (65%) having more than five years.

Added to their experience is their work titles, as 70% of the participants was working as Consultatives and Contractors.

These questionnaires were administered using purposive snowballing sampling technique, which helped in reaching professionals who have an in-

depth understanding on procurement and the implementation of online tendering platform for public construction projects in Jordan, 111 questionnaires were successfully retrieved.Researchers commonly do mediation analysis is done in order to informally analyze the influence of a purported cause on some result via a putative mediator. The value of mediation analysis arises from its capacity to move beyond the simply descriptive to a more practical understanding of the interactions among variables.

A big aspect of mediation is a statistical and practically meaningful indirect impact. Althoug h mediation theories are widely examined in psychology research, formal descriptive studies of indirect effects are seldom done. After a short explanation of mediation, we highlight the relevance of explicitly evaluating the significance of independent impacts and give SPSS and SAS macros that simplify estimating of the indirect effect using a normal theoretical approach and a bootstrap technique to establishing confidence intervals.

4.4.1 Differences Between SPSS and SAS:

Differences between SPSS vs SAS is among the key worry amongst statistics students. The world is evolving at a fast rate. That is why the modern tech is sprouting with every moving day. Do you aware that data play a key part in the progress of technology? That’s why the value of data is going to grow every day.

Nowadays, data is created for very minor things since the corporation needs every data which might be valuable for technological advancement. But possessing the data wasn't enough for the corporation to reach a judgement. That’s why it is needed to examine the data using specific statistical approaches.

After processing by several of the statistical approaches that data aid us in anticipating the data patterns. Now the issue is how can we examine the data with precision. It is pretty difficult as well as moment to assess the vast range of data manually. That’s why there are two most prominent statistics tools making the statistical analysis simpler.Today we are going to have an in-depth analysis of SAS vs SPSS. The key distinction between these two is, SPSS is an analytical tool , whereas SAS is a programming language that goes with its suite.

Both these statistics techniques are important in statistical analysis, company development, a nd to figure out the variation in real work. We know that both of these are applications of statistical data analysis. But there are many of distinctions between these two. Now let begin with the definition of each instrument.

4.4.2 SPSS:

SPPS is an abbreviation of "Statistical Package for Social Sciences." It is a technology of IBM and was introduced in the year 1968. It is one of the earliest statistics software. The researcher utilize SPSS to evaluate various forms of data in scientific study. It is among the most dependable statistics applications.

That's why it is utilized by market researchers, medical researchers, survey firms, government, data analysts, and many more. As the name indicates, it was designed for social science. And it's the first statistical language of programming for the PC.

You can simply make a report with SPSS. SPPS gives the graphs and figures for reporting, and you may simply copy and paste graphs and table in SPSS. Besides, as a statistics program, it is having the finest in class user interface in the globe.

4.4.3 SAS:

SAS is one of the greatest statistical widely used programming languages. It may have the best in the best user interface, since it is a programming language. The key function of SAS is a highlights the ways, business analytics, data management, and prescriptive analytics.

SAS is much more robust than the SPSS since it is not offering the simple to use interface like SPSS. SAS doesn't provide you the copy and pastes feature for charts and tables. It is quite tricky to personalize stuff on SAS. As I indicated previously, it is a programming language.

That is why we need to have coding skills to accomplish some customization in SAS. You do have superior control over modeling all due of its command-line interface and powerful code editor.

Data Processing is also quicker in SPSS as comparison with SPSS. SPSS can readily manage a vast quantity of data set. It gives the greatest capabilities like sorting and separating the data that makes it the ideal alternative for data processing.

4.4.4 Basic difference and History :

SPSS is a statistical program or software for statistical analysis. SPSS refers for Statistical Package for the Social Sciences. As I indicated previously, that is the most dependable statistics program.

That's why market research firm, survey firms, government organizations, and many more other sectors utilize SPSS. It was created for social sciences and became the first statistical program ming language for the PC. A team of statisticians created it in the year 1968 at Stanford University.

Eight years later SPSS also has its own firm called as SPSS.Inc. With the rising popularity of SPSS, This was purchased by IBM in the year 2009.

SAS is not a statistical software or instrument, rather it is the statistical programming language. SAS stands for Statistical Analysis System. It is the rich programming language which has its suite built for analysis tools, business intelligence, and predictive analysis.

North Carolina State University created it. The fundamental reason for the creation of this language is to evaluate the large volumes of farm data.

4.4.5 Purpose and Usability

SPSS is the most accessible statistics program I've ever seen. The non-statisticians may utilize it. It is having the finest in class simple to use UI with simple drag and drop options. SPSS may be utilized in various domains, but it can play a vital role in social sciences.

But at the other hand, SAS is the most powerful statistics programming language. Thus it is having a huge quantity of high-quality code for different statistics function. It is the top commercial analytics software in the world. SAS is a well-tested programming language and its updated versions in a controlled environment.

4.4.6 Data processing:

I wish to propose SPSS for a wide amount of data processing. SPSS can only handle the lower quantity of data that should be lesser than the 100 MB. On the other hand, SAS gives numerous tools to handle a vast quantity of data set employing sorting and splicing the input.

4.4.7 Ease of learning:

Anyone from the universe can learn SPSS. The explanation is SPSS is delivering the greatest user interface. It implies the users do not have to learn the code. SAS is giving drop-down techniques.

It offers the paste function which automatically constructs the syntax for steps completed in the user interface. On the other hand, SAS relies on the Proc SQL. It suggests that it is fairly straigh tforward for the individual to learn SAS – who've already experience with SQL.

4.4.8 Advantages:

SPSS is the most used program at some of the best colleges and businesses in the world. It features the user-friendly interface together with the detailed documentation.

So no need to generate the 1000 pieces of code in SPSS. It immediately writes the code using the paste option. Through as well, you will also discover the greatest online help to answer any difficulty that you may experience while using SPSS.

On the other hand, SAS is one of the commonly utilized statistical programming languages in the business. It also gives the drag and drop feature to the programmers. It can manage the enormous number of datasets.

4.4.9 Disadvantages:

SPSS is not free software, but It is a licensed product of IBM businesses. It is one of the most costly statistics software in the world. But it gives restricted syntax. It is also not embracing new technology as comparing with other statistics applications.

On the other hand, SAS is also a costly programming language. It is also not delivering the user interface. You have to write numerous lines of programs to execute any activity on SAS.

4.5 Conclusion: SPSS versus SAS:

In the conclusion, we have learnt that both SPSS and SAS are highly useful in the analysis of data in their very own style. Both of them are supplying numerous features to do statistical approaches. Now you may be pretty assured to select between SPSS and SAS.

There is not a clear victor of this match between SPSS versus SAS. If you have any programming experience, then you should choose for SAS. Otherwise, SPSS might be the finest solution for you. It is also a product of IBM. It indicates that SPSS is very dependable statistics program.One more final point if you would want to enter into the teaching field then SPSS is perfect for you. If you are heading to the analytics field, then SAS is the finest alternative for you. Now it's your chance to select between these two.

Based on this analysis, The data collected was edited, coded and processed with statistical package for social sciences (SPSS) version 20 and Friedman statistical tools which is Similar to the parametric repeated measures ANOVA that dealing with ranked data. The data were then analyze d using mean score ranking to determine the significant levels based on obtained means of various variables relative to one another. This method has been widely used in the construction management studies.

In establishing the relevance, the variables were ranked based on the obtained mean, however , when two or more variables scored the same mean, the highest ranking is assigned to the one with least standard deviation Similarly, the significance level was set at 95% in accordance with orthodox risk levels.

4.6 ANOVA test:

ANOVA stands for Analysis of Variance. It's a statistical test that was invented by Ronald Fisher in 1918 but has been in use ever since. Put simply, ANOVA informs you if there were any statistically significant differences between the means of three or more independent groups.One-way ANOVA is the most basic version. There are several versions that may be used in different contexts, including:

Two-way ANOVA Factorial ANOVA Welch's F-test ANOVA Ranked ANOVA Games-Howell pairwise test.

4.6.1 How does ANOVA work?

Like the t-test, ANOVA lets you figure out if the differences between sets of data are statistically significant. It operates by assessing the degrees of variation within the groups using samples obtained from each of them.

If there is a lot of variation (spread of data away from the mean) among the data groups, then there is higher probability that the mean of a sample picked from the data will be different owing to chance.

Along with looking at variance within the data groups, ANOVA includes factors sample size (the larger the sample, the less chance there will be of picking outliers for the sample by chance) as well as the discrepancies between sample means (if the means of the samples are apart, it much more likely that the means of the whole group will be too).

All these components are merged into a F value, which can then be examined to produce a probability (p-value) of whether or not variations between your groups are statistically significant.

A one-way ANOVA evaluates the effects of an independent variable (a factor that impacts other things) on numerous dependent variables. Two-way ANOVA achieves the same thing, but with more than one independent variable, while a factorial ANOVA raises the number of independent variables even further.

4.6.2 How can ANOVA help?

The one-way ANOVA may assist you identify even if there aren't significant difference between means of your independent variables.

4.6.3 Why is that useful?

Because when you know how each regression coefficient mean is distinct from the others, we can start to understand which of them has a link to your predictor variables (such as landing page clicks) and fully grasp what is driving that behavior.

You may also turn things around and observe whether or not a single independent variable (such as temperature) influences numerous dependent variables (such as purchase rates of suntan l otion, attendance at outdoor locations, and probability to organize a cook-out) and if so, which ones.

4.6.4 When could you utilize ANOVA?

You could utilize Analysis of Variance (ANOVA) as a marketing when you want to test a certain hypothesis. You would use ANOVA to assist you understand how your various groups react, using a hypothesis again for test that the means of the different groups are identical. If there is indeed a statistically significant result, then it implies that the two populations are unequal (or distinct) (or different).

4.6.5 Examples of using ANOVA :

You may wish to utilize ANOVA to assist you answer queries like this:

When you understand how the groups inside the independent variable vary (such as widowed or single, not married or divorced), you may begin to discover which of them has a link to your dependent variable (mood) (mood).

However, you should notice that ANOVA will only inform you if the average mood ratings across all groups are all the same or are not the same. It does not tell you which one has a considerably higher or lower mean mood score.

4.6.6 Understanding ANOVA assumptions :

Like other kinds of statistical tests, ANOVA evaluates the means of distinct groups and tells you whether there are any statistically significant differences between both the means. ANOVA is categorized as an omnibus test statistic. This implies that it can't tell you which exact groups were statistically substantially different from each other, simply that at least the two of the groups were.

It's vital to remember that the key ANOVA research issue is that the group means are from distinct populations. There really are two hypotheses upon which ANOVA rests:

Whatever the manner of data collection, the data in each sampled population are regularly distributed.The sampled population has a common variance of s2.

4.7 Types of ANOVA :

From the fundamental one-way ANOVA to the modifications for particular instances, like the ranked ANOVA for non-categorical variables, there are a range of techniques to apply ANOVA for your data analysis. Here's an introduction to some of the more frequent ones.

And what's the distinction between one-way and two-way ANOVA tests?

This is specified by how many measurement items are included in the ANOVA test. One-way implies the analysis of variance has one independent variable. Two-way means the test involves two independent variables. An instance of it might be the independent variable being a brand of drink (one-way), or independent variables of brand of drink and how many calories it contains or whether it's original or diet.

4.7.1 Factorial ANOVA:

Factorial ANOVA is an umbrella term that encompasses ANOVA tests using two independe nt categorical variables. (A two-way ANOVA is really a sort of factorial ANOVA.) Categorical indicates that the variables are stated in terms of non-hierarchical categories (like Mountain Dew vs Dr Pepper) rather than using a ranked scale or numerical value.Welch's F T est ANOVA Stats iQ proposes an unranked Welch's F test if many assumptions about data hold: The sample size is more than 10 times the number of groups inside the computation (groups with just one value are omitted), and consequently the Central Limit Theorem meets the condition for normally distributed data.

There are few or no outliers in the continuous/discrete data.Unlike the somewhat more popular Ftes t for equal variances, Welch's F test does not presume that the variances of the groups being compared are equal. Assuming data is normally distributed leads to less accurate findings when variances are not, in fact, equal, and its outcomes are fairly comparable when variances are genuinely equal.

4.7.2 Ranked ANOVA :

When assumptions are broken, the unranked ANOVA may no longer be viable. In such circumstance, Stats iQ proposes the ranked ANOVA (sometimes called "ANOVA on ranks"); Stats iQ rank-transforms the data (replaces values with their rank ordering) and then performs the same ANOVA on that changed data.

The ranked ANOVA is resilient to outliers and non-normally dispersed data. Rank transformation is a well-established way for defending versus assumption violation (a "nonparametric" method) and is most typically observed in the difference between the Pearson and Spearman correlation. Rank transformation followed by Welch's F test is comparable in effect to the Kruskal-Wallis Test.

Note that Stats iQ's ranked and unranked ANOVA effect sizes (Cohen's f) are computed using the F value from the F test for equal variances.

4.7.3 Games-Howell Pairwise Test

Stats iQ executes Games-Howell tests regardless of the result of the ANOVA test (as per Zimmerman, 2010). (as per Zimmerman, 2010). Stats iQ provides unranked or ranked Gam es-Howell paired tests based on the same criteria as those used for ranked vs. unranked ANOVA, thus when you see "Ranked ANOVA" in the advanced output, the pairwise tests will be ranked.

The Games-Howell is simply a t-test for unequal variances that compensates for the heightened risk of getting statistical significance by chance when doing numerous paired tests. Unlike the somewhat more frequent Tukey's b-test, the Games-Howell test doesn't really assume that the variance of the groups being compared are identical. Expecting equal variances leads to less accurate findings if variances are not in fact equal, and its outcomes are fairly comparable when variances are genuinely equal (Howell, 2012). (Howell, 2012).

Note that although the unranked pairwise test examines for the equality of the means of the two groups, the ranked pairwise test does not explicitly test for discrepancies between the groups' means or medians. Rather, it examines for a general tendency of one group to have bigger values than the other.

Additionally, although Stats iQ does not report results of paired tests for any group with fewer than four values, such groups are considered in determining the degrees of freedom for the other pairwise tests.

4.7.4 What are the limits of ANOVA?

Whilst ANOVA will enable you to examine the difference in means among two independent variables, it won't inform you which statistical groups were distinct from each other. If your test yields a significant F-statistic (the number you receive when you perform an ANOVA test), you may need to conduct an ad hoc test (such the Least Significant Difference test) to inform you specifically which groups had a difference in means. ("ANOVA Test: Definition & Uses (Updated 2022) - Qualtrics", 2022)

4.8 The Non-parametric Friedman Test:

The Friedman test is a non-parametric test used it to test the differences between sets when the variable is at least ordinal (may be continuous) (could be continuous). The F test is the non-parametric alternative to the one-way ANOVA with repeated measurements (or the full block design and a specific instance of the Durbin test) (or the complete block design an d a special case of the Durbin test). If the data is substantially different than distributed normally this becomes the preferable test over doing an ANOVA.The test technique ranks each row (block) jointly, then evaluates the values of rankings by columns. The data is structured in to a matrix with B rows (blocks) and T columns (treatments) with a single process in each cell of the matrix.

Assumptions:

As with practically every statistical test, there really are assumptions to evaluate. Here let's spotlight four aspects to consider:

- There is one group of test participants that are evaluated on three or more distinct times.
- The group is a random sampling from the population.
- The dependent variable is at least an ordinal or continuous (Likert scales, time, intelligence, % accurate, etc) (Likert scales, time, intelligent, percentage correct, etc.)
- The samples should not be normally distributed.

4.9 Setting up the hypotheses:

- The null hypothesis is median treatment effects of the population are all one. In summary, the therapies have no impact.
- The alternative hypothesis is the impacts are not all the same. Indicating there is a visible difference in treatment effects.
- The data we're working with represents the circumstance where we wish to compare T treatments with N participants. The participants are randomized randomly to the different groups. The comparison is within every group and not between groups.

4.9.1 The Test Statistic:

- The comparison is of the ranked outcomes of the ordinal or continuous data, giving a ranking value from 1, 2, to T for each of the B rows or treatments.
- Because the null hypothesis is the treatments have really no affect the rankings the total of the rating for each column (treatment) should all be identical.
- The entire sum of rankings is BT(T+1)/2, hence each treatment's sum of ranks, if equal, should be pretty near to B(T+1)/2. Therefore the test statistic is a function of the sum of squares of variances between treatment rank sums (R1, R2, …, RT) and the predicted B(T+1)/2 value.

4.9.2 The Critical Value:

- And we need to evaluate the test statistic to the crucial value to assess the deviation are diverging enough to establish that treatments weren't all equal. Here software comes in helpful , such Minitab, R, or any other program the includes the tables built-in.
- And here's an excepted table for three or four treatments. If your experiment contains multiple treatments or a big sample size you might estimate the critical value using a chi-squared distributions (more on that another time) (more on that another time). (Schenkelberg, 2022).

4.10 Conclusion:

- If the test statistic value, S, is bigger than the critical value mentioned in the table then we reject the null hypothesis and conclude there is strong evidence that the treatments different.
- And because we use ranking we found that using Friedman test is the best method to determine our hypotheses ,Werther are correct nor wrong, the tests done in 10th of April 2021.
- Knowing that if a p-value less than 0.05 (typically ≤ 0.05) is statistically significant.

- It indicates strong evidence against the null hypothesis, as there is less than a 5% probability th e null is correct (and the results are random). Therefore, we reject the null hypothesis, and acce pt the alternative hypothesis.

a) $H_{0:}$**It's better to use online tendering platform over current traditional way.**

b) $H_{1:}$ **Incorporating ML in the e-tendering platform will improve the overall project's quality. (Machine learning).**

C) $H_{2:}$ **Using online tendering platform will cut project costs, save time and increase tend ering efficiency.**

4.11 Path loadings for the proposed model:

At first it's important to know that Path Analysis is the statistical approach based upon such a linear equation system that used explore causal linkages among two or more variables, It is merely a sequence of regressions done sequentially to data. In a regression model, every Independent Variable (IV) has direct impact the Dependent Variable (DV) where In a path analysis model, in addition to direct influence then there is indirect effect of an Independent Variable (IV), through a mediating variable, on the Dependent Variable (DV).

Recognizing that Path analysis was first developed by Sewall Wright in the 1930s used in phylogenetic studies then it Grown in popularity in 1960, when Blalock, Duncan, and many others initiated them to social science (e.g. status attainment processes) In which the development of general linear models by Joreskogand others in late 1960s ("LISREL" models, i.e. linear structural relations).

A complete statistical strategy to evaluating hypotheses concerning links among observable and latent variables it's also A approach for modeling, estimating, and evaluating a theoretical network of (mainly) linear interactions between variables also Tests predicted patterns of direction al and non-directional correlations among a collection of observable (measured) and unseen (latent) variables.

4.11.1 Difference Between Path Analysis and SEM:

- Path analysis is a special case of SEM.
- Path analysis contains only observed variables (no latent variable as SEM).
- Path analysis assumes that all variables are measured without error.
- SEM uses latent variables to account for measurement error.
- Path analysis has a much more restrictive set of assumptions than SEM (e.g. no correlation between the regressors) (e.g. no correlation between the error terms).

Path analysis is a subset of Structural Equation Modeling (SEM), a multimodal approach as Path analysis as described by Ullman (1996) "allows evaluation of a set of relationships between one or more independent variables, either continuous or discrete, and dependent variables, either continuous or discrete".

Because SEM works with measured and latent variables and consider mix of multiple linear regression and factor analysis we use Path analysis as it deals solely with measured variables.

4.11.2 The Purpose of Path Loadings:

1. To identify the patterns of correlation/ covariance among a group of variables.
2. To describe as many of their variation as feasible with the model stated.
3. Stages of Path Analysis.
4. Model specification.
5. Model identification.
6. Model fit.
7. .Coefficient estimations.
8. Model re-specification (if required) (if necessary).

It's important to know SME process as it depend on validating the measurement model: achieved mostly using confirmatory factor analysis (CFA) and Fitting the structural model: achieved mostly by route analysis using latent variables , where The Purposes of CFA and Path Analysis was to Confirmatory factor analysis (CFA) and Tests models of links among latent variables (LVs or common factors) and MVs which have been indicators of common factors. test of both the meaningfulness of latent variables and associated markers, although the researcher may prefer to employ established tests (ex., Cronbach's alpha).

Confirmatory factor analysis (CFA) may be performed to validate that the indicators arrange themselves into factors matching to how the researcher has related the indicators to the latent variables as it plays an essential role in structural equation modeling . As CFA models in SEM are used to examine the impact of measurement error in the model in order to verify a multifactorial model, and to establish group effects on the components.

It also important to know that Both IV's and DV's may be continuous, discrete, or even dichotomous and If DV is continuous, can utilize model comparable to regression analysis can apply SPSS AMOS and If DV is dichotomous, may use model comparable to regression analysis can apply Stata GSEM (generalized structural equation model) (generalized structural equation model).

Independent variables are typically regarded either predictor or causal variables since they predict or cause the dependent factors (the response or outcome variables) (the response or outcome variables) Understanding of Path Coefficients as They are not correlation coefficients supposing we have a network with a route linking from variable A to variable B.

With the unstandardized path coefficient B of 0.81: –
If variable A grows by one unit, variable B would be predicted to increase by 0.81 unit, while maint aining all other relevant variables constant and with a path coefficient B of -0.16: –
If variable A grows by one unit, variable B would be predicted to drop by 0.16 unit, while maintaini ng all other relevant variable constant they are not correlation coefficients.

Suppose we have a network with a route linking from variable A to variable B. The meaning of the standardized path coefficient Beta (e.g., 0.81): –If variable A rises by one standard deviation from its mean, variable B would be predicted to increase by 0.81 its own standard deviation (sd) from its own mean while maintaining all other relevant variables constant.

With a path coefficient Beta of -0.16: –
If variable A rises by one standard deviation from its mean, variable B would be predicted to fall by 0.16 its own standard deviations from its own mean while retaining all other relevant variable (Murti, 2016).

4.12 Our proposed model :

The following figure provides an overview of the path loading results for all of the variables linked with the suggested model in this study. The figure details three individual aspects representing the three hypotheses , namely using online tendering platform over current traditional way , Incorporating ML in the e-tendering platform improves quality and Using online tendering platform will cut project costs,save time and increase tendering efficiency.

We mention before we give ranking from 1 to 5 according to the answers that started from totally agree to totally disagree , we estimated the mean of the ranking for each question then to each hypothesis then to the total study. If the means of the hypothesis >3 the hypothesis is accepted initially as the following figure .

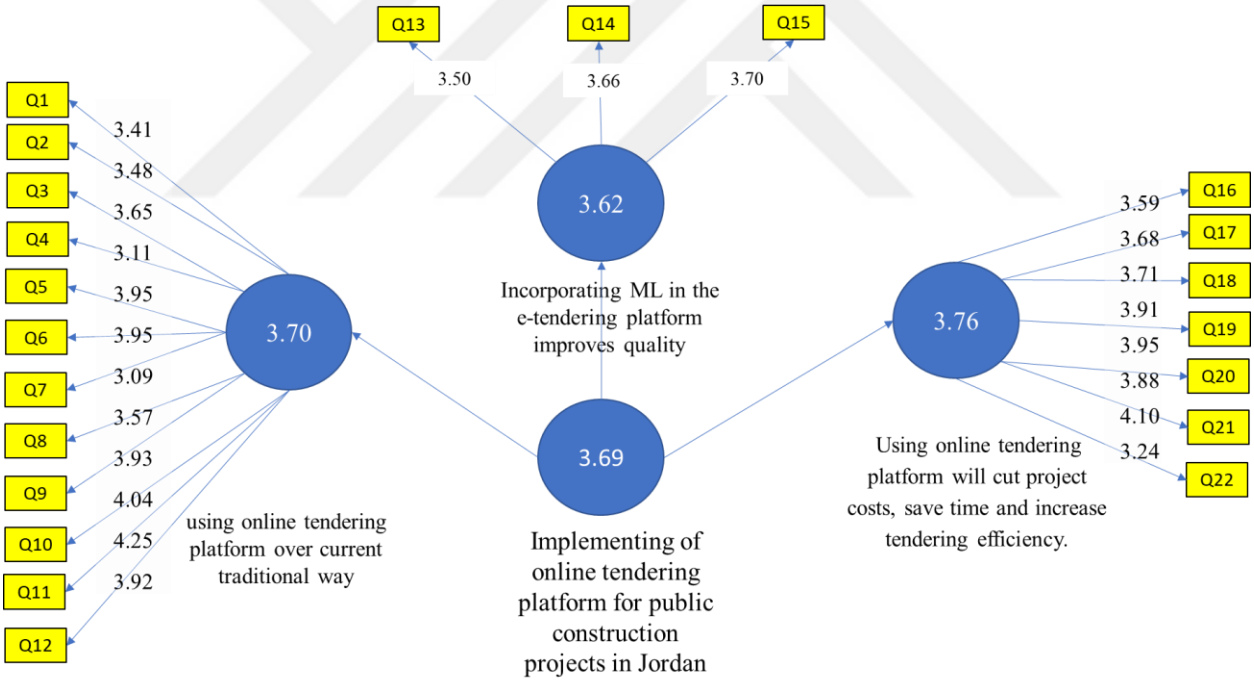

Figure 3.path loading for modify model

According to the path loading model all of the questions gets higher values >3 and the three h ypothesis gets (3.70 , 3.62 , 3.76) Respectively.

According to all previous inputs It's confirms that implementing online tendering platform fo r public construction projects in Jordan are welcomed from the participants.

4.13 Our proposed Hypothesis :

The suggested hypotheses for this research work and illustrates the proposed conceptual framework, the research hypotheses represented by relations between the model's constructs and the behavioral intentions and actual use behavior. The following hypotheses are proposed for this research as following:

• Performance expectancy has an effect on behavioral intention and the actual use to adopt social commerce.

a) The influence of performance expectancy on behavioral intention to adopt social commerce will be moderated by gender, age , and income.

b) The influence of performance expectancy on actual use to adopt social commerce will be moderated by IT experience.

• Effort expectancy has an effect on behavioral intention to adopt social commerce.

c) The influence of effort expectancy on behavioral intention to adopt social commerce will be moderated by gender, age, and IT experience.

• Social influence has an effect on behavioral intention to adopt s-commerce.

d) The influence of social influence on behavioral intention to adopt social commerce will be moderated by gender, age, and income.

• Facilitating conditions has an effect on actual use behavior of s-commerce.

e) The influence of facilitating conditions on actual use behavior of social commerce will be moderated by age and IT experience.

• Behavioral intention to adopt social commerce has an effect on actual use behavior of social commerce.

f) The influence of behavioral intention on actual use behavior to adopt social commerce will be moderated by IT experience

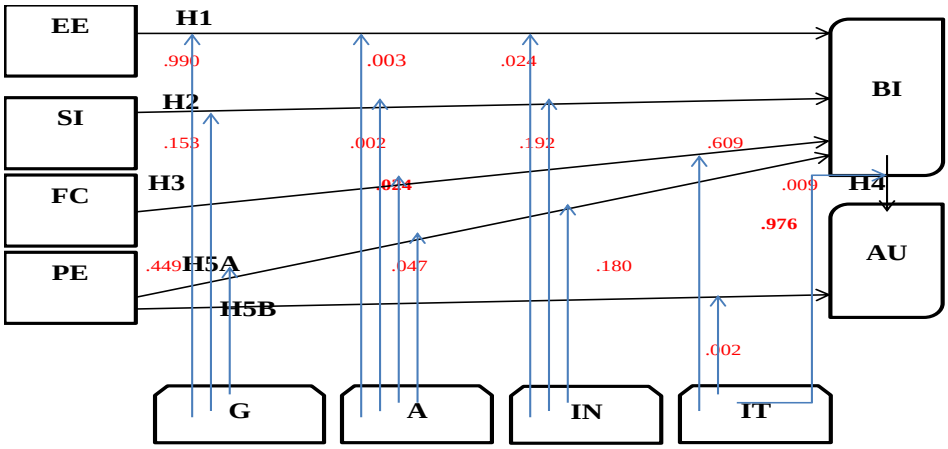

Figure 4. proposed hypotheses

4.14 Proposed Conceptual Framework of Extended UTAUT model:

This study offers a new conceptual framework for UTAUT model that incorporates the unique characteristics of s-commerce to enhance the understanding for its acceptance and usage within the proposed research population. The proposed extension is done over the concept of the original model with some development on its determinants and moderators by adding some new factors to the model's structure, and removing some of the existing factors. These modifications would enhance the model and make it more suitable to use over s-commerce or any other social application with attention to the usage behaviors for developing counties' societies.

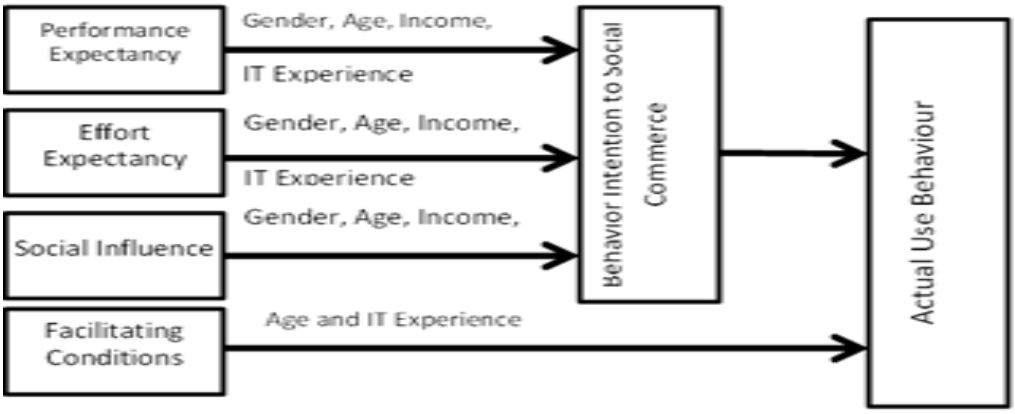

Figure 5. Proposed conceptual framework of extended UTAUT model for social commerce

4.15 Machine Learning Abroach:

We will provide A ML approach in order to predict consumer readiness to accept social commerce in Iraqi market using 11 question on our survey that represents consumer Point Of view regarding Social Commerce .

The 11 questions will be :

1. My experience with online e-government services is good in government websites that provide electronic services to citizens
2. The solution to making bidding more convenient and easier is to digitize the process for all stages of bidding.
3. I encourage entering the Jordanian electronic tendering system. From my point of view,
4. I believe that the use of electronic tendering platforms will ensure business continuity and access to data and record keeping.
5. I believe that bidders will be able to use the online platform easily.
6. I believe that the current technological infrastructure in Jordan is capable of supporting the electronic bidding platform.
7. I believe that the electronic bidding platform will eliminate malpractice in the bidding process.
8. The electronic bidding platform, if implemented, will reduce operational costs on both the bidder and the Ministry alike.
9. I believe that the electronic bidding platform will facilitate and speed up the communication process between the bid winner and the Ministry.
10. I think information security is very high on this platform

Artificial intelligence is a machine's capacity to learn like a person, allowing it to achieve human intellect and much more.

Advances in AI have led to benefits in a variety of industries, including automation, supply chain, eCommerce, manufacturing, and many more.

Not only that, but AI's sub-parts, such as Data Science and Machine Learning, have helped organisations make better judgments.

In other words, we might evaluate and deliver customised suggestions to clients based on their likes and dislikes, most often purchased things, prior searches, correlations between item purchases, and many other factors to help an eCommerce company increase income.

AI has played a big part in eCommerce by assisting with inventory management, logistics, identifying trends and patterns, forecasting future outcomes based on previous trends, and assisting with fact-based judgments, among other things.

Consumer behaviour refers to how people choose, decide, utilise, and dispose of products and services in the broadest sense. Individuals, groups, and organisations from any vertical are covered.

It provides valuable information and insights about the emotions, attitudes, and preferences of consumers, all of which influence purchasing decisions. As a result, marketers will be able to better understand their consumers' requirements, provide value to them, and generate income for the organisation.

Big companies understand that predicting customer behavior fills the gap in the markets and identifies products that are needed and which could generate bigger revenue.

predict consumer readiness can be done by:

Filtration: separating the not need questions or negative question that could mislead in prediction process . This helps in the separation of concerns, which in turn helps us identify the region of the market.

Predictive Analytics: we use statistical techniques to analyze previous historical survey to predict the future behavior of customers.

In this dataset survey , we have information related to customers behavior like:

*User-ID

*Question

* rating on questions from 1 to 5

For data exploration, it is mandatory to have a few Python libraries installed.

The libraries to download are:

- NumPy
- Pandas
- Matplotlib
- Sklearn
- Seaborn

Code :

```
import numpy as np
import pandas as pd
import sklearn
import matplotlib.pyplot as plt
import seaborn as sns
```

View dataset

```
df = pd.read_csv(r'../downloads/survey.csv')
df.head()
```

Data visualizations:

For data exploration, it is mandatory to have a few Python libraries installed.

Correlation between Age AND annual income inIQD.

```
plt.figure(1 , figsize = (15 , 6)) # sets the dimensions of
image
n = 0
for x in ['Age' , ' annualincomeinIQD ']:
    n += 1
    plt.subplot(1 , 3 , n) # creates 3 different sub-plots
    plt.subplots_adjust(hspace =0.5 , wspace = 0.5)
    sns.distplot(df[x] , bins = 20) # creates a distribution
plot
    plt.title('Distplot of {}'.format(x)) # sets title for each
plot
plt.show() # displays all the plots
```

Output:

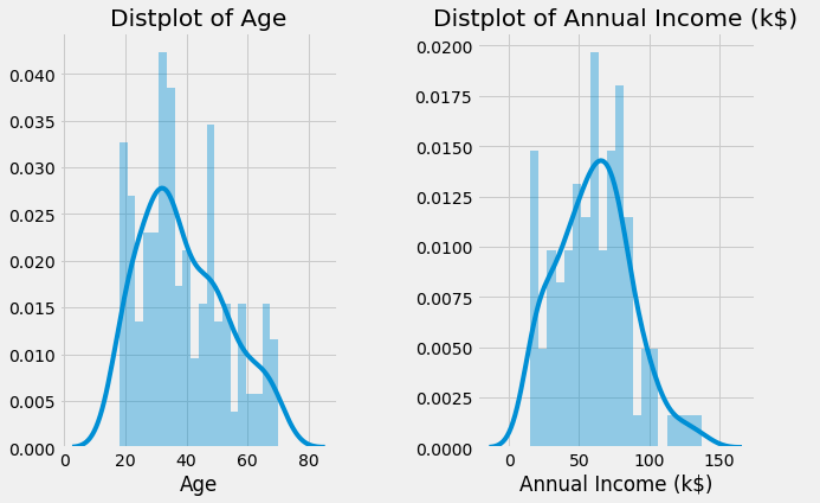

Figure 6 . Distribution plot of Age and Income of surveyors.

Gender analysis:

The analysis of spending habits based on gender is the second most essential factor in determining the approach. Females tend to buy more than men in this situation.

```
plt.figure(1 , figsize = (15 , 5))
sns.countplot(y = 'Gender' , data = df)
plt.show()
```

Output:

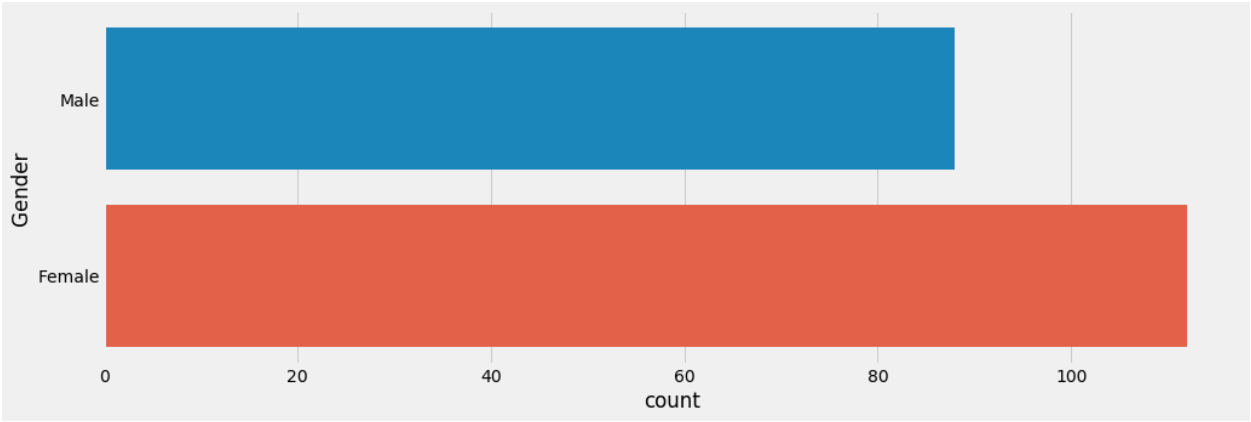

Figure7. Count of sample gender based on their tends to use social commerce

Clustering our question survey :

In this method we will cluster questionstogether to 4 groups to help ML tool and ease our work

Cluster 1 :

1. My experience with online e-government services is good in government websites that provide electronic services to citizens
2. I think information security is very high on this platform

Cluster 2 :

3. The solution to making bidding more convenient and easier is to digitize the process for all stages of bidding.
4. I encourage entering the Jordanian electronic tendering system. From my point of view,

Cluster 3 :

5. I believe that the use of electronic tendering platforms will ensure business continuity and access to data and record keeping.
6. I believe that bidders will be able to use the online platform easily.
7. I believe that the current technological infrastructure in Jordan is capable of supporting the electronic bidding platform.

Cluster 4 :

8. The electronic bidding platform, if implemented, will reduce operational costs on both the bidder and the Ministry alike.
9. I believe that the electronic bidding platform will eliminate malpractice in the bidding process.
10. I believe that the electronic bidding platform will facilitate and speed up the communication process between the bid winner and the Ministry.

Now let's have a look at what we can do with four clusters:

```
model_2 = (KMeans(n_clusters = 4 ,init='k-means++', n_init = 10
,max_iter=300,
                        tol=0.0001,  random_state= 111  ,
algorithm='elkan') ) # set number of clusters as 4
model_2.fit(X_age_spending) # fit the model
labels1 = model_2.labels_
centroids1 = model_2.cluster_centers_
```

we used k-means clustering which is a vector quantization approach that seeks to split n observations into k clusters, with each observation belonging to the cluster with the nearest mean (cluster centres or cluster centroid), which serves as the cluster's prototype. As a result, the data space is partitioned into Voronoi cells. Within-cluster variances (squared Euclidean distances) are minimised by k-means clustering, but regular Euclidean distances are not, which is the more difficult Weber problem: the mean optimises squared errors, but only the geometric median reduces Euclidean distances. Using k-medians and k-medoids, for example, better Euclidean solutions can be obtained.

Let's draw the graph:

```
plt.figure(1 , figsize = (15 , 7) )
plt.clf()
Z = Z.reshape(xx.shape)
plt.imshow(Z , interpolation='nearest',
           extent=(xx.min(), xx.max(), yy.min(), yy.max()),
           cmap = plt.cm.Pastel2, aspect = 'auto',
origin='lower')

plt.scatter( x = 'Age' ,y = 'consumer readability(1-100)', data
= df , c = labels1 ,
            s = 200 )
plt.scatter(x = centroids1[: , 0] , y =  centroids1[: , 1] , s =
300 , c = 'red' , alpha = 0.5)
plt.ylabel('consumer readability (1-100)') , plt.xlabel('Age')
plt.show()
```

Output:

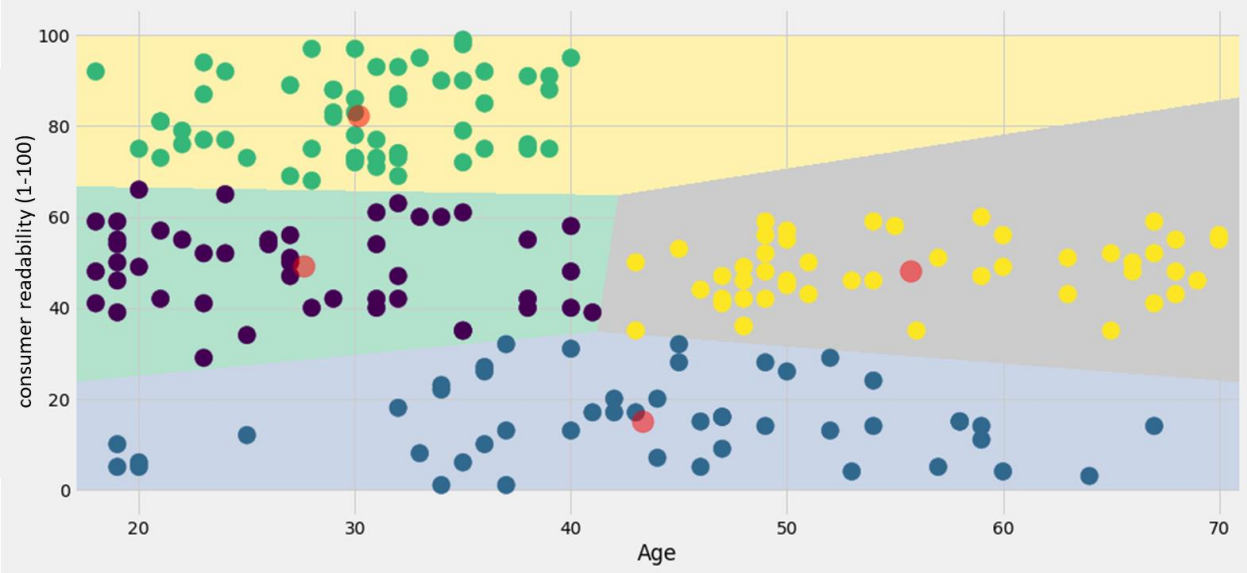

Figure 8 . k-means output with 4 clusters

We may deduce a lot of information about Consumer Readability from the graph above.

Conclusion :

- Consumer Readability was deduced based on users answers on the questions on the 4 clusters where answers where plot on scale from 1 to 100 by aggregate their answer count on each cluster where 100 is maximum readiness and 0 indicates there are not ready yet for using Modern social commerce .
- Regardless of age, the average Consumer Readability score would be approximately 20.
- Customers under the age of 40 had the highest Consumer Readability .
- Above the age of 40, the Consumer Readability score remains steady between 30 and 60.
- This graph predicts consumer readability toward social commerce which encourage to more implement it in Iraqi market where with AI and ML methods we assure that truly most of consumers are welcoming this Idea and Ready with it especially youth which represent most or Iraq population.

5. Results:

This section highlights the result and findings from the returned questionnaires of the contractor and client base. The stated objectives were justified as follows:

5.1 School questionnaire

The questionnaire consists of 5 categories and 49 question as following :

A. Personal information about users of social commerce :
   1. Gender
   2. Age
   3. Employment type
   4. Monthly income in IQD
   5. Do you have an account on one of the social media networks?
   6. From your own viewpoint, what is the major reason for not using social networks till now ?

B. Computer Knowledge and Experiences :
   7. To what extent do you describe your general computer and internet knowledge ?
   8. How long do you surf the internet daily ?
   9. How long have you been using the social media?
   10. What is your preferable and mostly used social network (please choose one only)?

C. Online Shopping Behavior= actual use :
   11. How long have you been e-shopping?
   12. How many times have you e-shopped in the past year ?
   13. If you faced a problem when you did e-shopping, what's the reason?
   14. Which option do you prefer to do e-shopping?
   15. Which application of social media do you prefer to do e-shopping?
   16. What is the important reason motivate you to do e-shopping?
   17. Did you do e-shopping for personal motivation or influence?
   18. How was the product received that you purchased?
   19. Did you ever use your account on social networks in a purchasing operation on one of the social online shopping sites?

20. If you decide to complete the purchasing process, what is the preferable method of payment you use?
21. Did you ever use your account on social networks to benefit from social media features (commenting, liking, sharing, or others) in the online shopping activities for you or one of your friends on the network?

D. Performance Expectancy: Your opinion on the benefits that would be attained from using social commerce :

22. Using my social network account in online shopping would enhance my effectiveness of online shopping .
23. Using my social network account in online shopping would help me more in searching for the most appropriate commodity.
24. Using my social network account would help me in discussing opinions and requirements about the commodity with the producers, suppliers, and distributors more effectively.
25. Using my social network account would ease getting reviews about the commodity from its users and discuss it with them.

E. Effort Expectancy: Your opinion about the ease of use :

26. Social media shopping is reliable.
27. Social media sites are concerned with maintaining the confidentiality of my data and pri vacy.
28. Social media such as: Facebook, what's app, Instagram,.. etc. are trust.
29. Social media shopping services make me more efficient.
30. Online shopping is better than local shopping.

F. Social Influence: Your opinion about the society influence on your decision to use the social commerce :

31. I feel the e-shopping sites is reliable.
32. I trust my friend's opinions and recommendations to do e-shopping.
33. I feel that my friends' experiences and reviews of the products which they bought are generally honest.
34. I can invite my friends to try e-shopping from social media.

G. Facilitating Conditions: Your opinion on the quality of use :

35. I do not know the steps of online shopping so that my desire to do e-shopping is weakness.
36. I do not know how to use a credit card so I can't shop online.
37. My lack of knowledge of the quality of the products offered prevents me from e-shopping.
38. I will not do e-shopping until I make sure to keep my data confidential.
39. I think that Arab e-commerce sites are not safe enough compared to foreign ones.
40. Sometimes the actual product purchased from the website is not the same as the product displayed on the same website.
41. I previously shopped online and paid for the product but did not receive the product.
42. Online shopping is based on high trust.
43. There is no confidence in saving personal data and not to use it for other purposes.
44. I have high knowledge about computer and internet use.

H. Behavioral Intention to Use: Your opinion continuing use social commerce in the future :

45. There should be a feature on all social media sites dedicated to e-commerce in the future.
46. There should be newer and faster ways to ship and deliver products and services that are purchased online in Iraq in the future.
47. E-commerce companies should provide more branches in Iraq in the future.
48. Newer and simpler financial methods must be provided to pay the amount of products that are bought online in Iraq in the future.
49. E-commerce lows must be developed to ensure the right of the producer and consumer in Iraq in the future.

5.2 Method Used in Ranking Questionnaire

Finally, we believe that Likert-scale questionnaires should be used in conjunction with other data-gathering methods in order to obtain a more comprehensive understanding of the construct under inquiry and to overcome the inherent limitations of numerical Likert-scale data, namely, that numerical data will provide a full picture of educational phenomena.

Data-gathering methods such as open-ended inquiries, observations, interviews, and objective testing should also be employed to get a more full picture of the occurrences. There's a better chance of correctly comprehending a concept and arriving at more acceptable interpretations and conclusions if you look at it from different perspectives.

Upon What mentioned previous it was done by measuring respondents' perceptions on the level of significant using a Likert items, where: 1 = insignificant (factor), 2 = slightly significant, 3 = quite s ignificant, 4 = very significant and 5 = extremely significant.

Thus, the numerical representation, statistical analysis and subjective were the underlying individuals' perceptions.

For example we found Regarding Performance Expectancy Answers was as following:

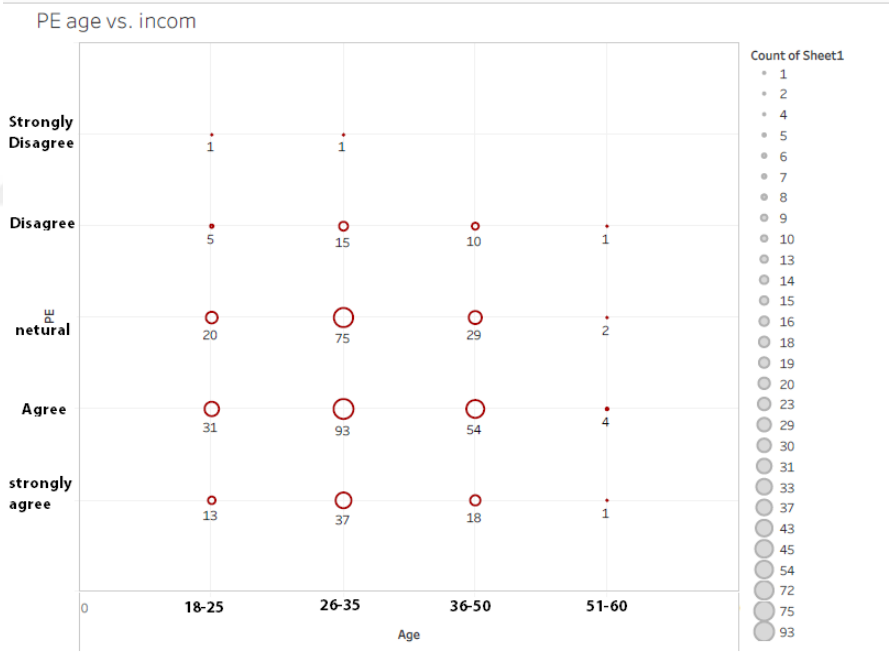

Figure 6.PE according to Age Answers

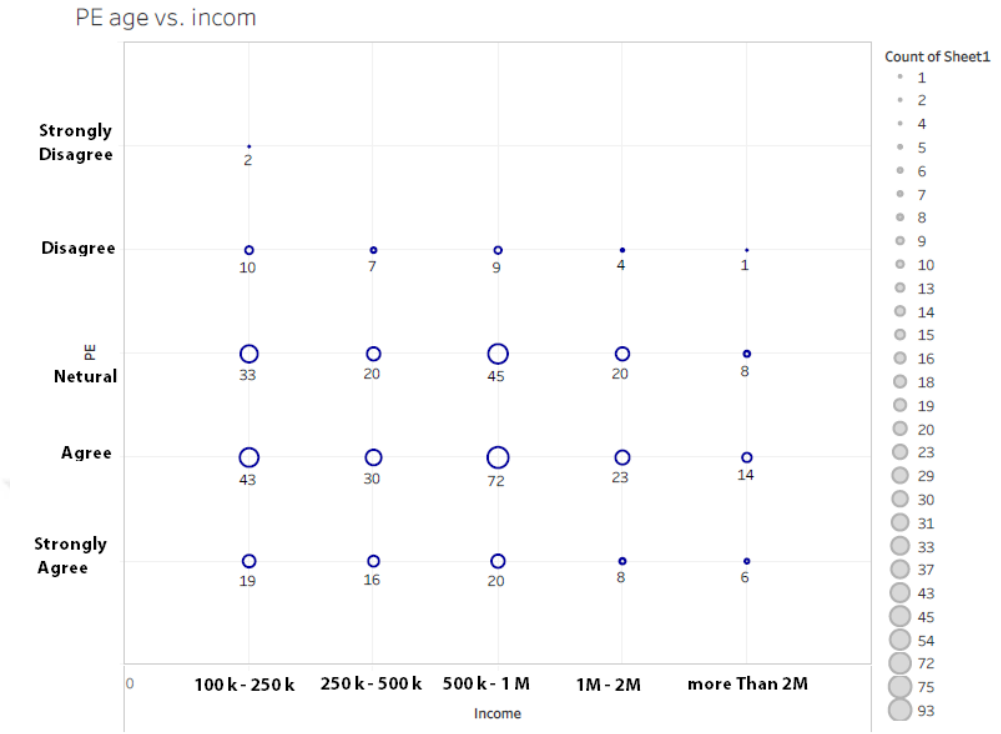

Figure 7.PE According to Income Answers

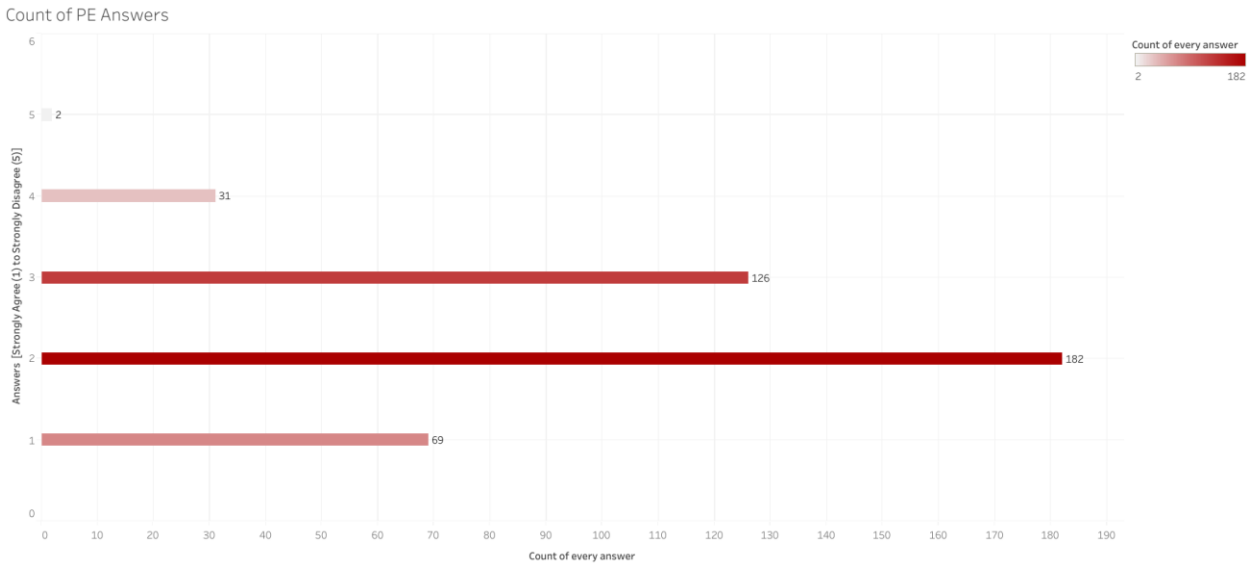

Figure 8.Count of answers and reply

It's Concluded that PE is a valid Variable as most of answers was (agreed) so the PE consider Critical Variable to take into Consideration , As well as EE and PI shows the same Results in our Research.

5.3 Research sample

The interview scheduled was administered to top industry players as Employees of the MPWH, Consultatives, Contractors, who have sufficient practical experience in procurement practices which reach more than 15 years of experience in the filed, which were also administered to more than100 respondents involving procurement practitioners and managers in the Jordanian public construction sector.

Respondents had enough working experiences as more than half of the total sample size (65%) having more than five years.

Added to their experience is their work titles, as 70% of the participants was working as Consultatives and Contractors.

These questionnaires were administered using purposive snowballing sampling technique, which helped in reaching professionals who have an in-depth understanding on procurement and the implementation of online tendering platform for public construction projects in Jordan, 111 questionnaires were successfully retrieved.

5.4 Background information

The background information of the total sample size is summarized in the following table:

Background information		
Category of Respondents	F	%
Consultant	**38**	**35%**
years of EXP 0-5	15	**14%**
years of EXP 5-10	7	**6%**
years of EXP 10-15	8	**7%**
More than 15 Years	8	**7%**
Contractor	**38**	**35%**
years of EXP 0-5	11	**10%**
years of EXP 5-10	15	**14%**
years of EXP 10-15	4	**4%**
More than 15 Years	8	**7%**
Employees of MPHW and Gov. Employees	**35**	**31%**
years of EXP 0-5	14	**13%**
years of EXP 5-10	5	**4%**
years of EXP 10-15	9	**8%**
More than 15 Years	7	**6%**
Grand Total	**111**	**100%**
F = frequency	% = percentage to the grand total	

Table 3: Summary of Background Information

5.5 Factor We Use

Among All Research Questionnaire We Choose three main Questions Categories to represent the model as following :

1. **Using online tendering platform over current traditional way** :

While Users get used to current traditional ways we need to investigate Werther they are welcoming using Online methods and their Readiness to make this step , It makes the system ready for this totally digital framework, automating the tender management process and enabling for speedier, more regulated purchasing that allows the purchaser to easily manage and assess offers.

2. **Incorporating ML in the E-tendering Platform improves Quality**:

It was important to investigate Is Artificial Intelligence Effective? As AI and ML is a comprehensive group of new technological tools with the capacity to study and modify their behavior, it helps procurement companies to handle difficult problems more efficiently utilizing clever computer algorithms than existing methods. AI software is typically created to do complicated tasks faster or quicker than individuals.

3. **Using online tendering platform will cut project costs, save time and increase tendering efficiency** :

As we all know, automation and constructed tracking tools minimize purchasing teams' overhead, improve performance, boost efficiency levels, and save money. They also assist minimize maverick expenditure, which occurs when employees purchase things "off contract," that is, beyond the limitations set forth in agreed and in-force contracts, thus tracking these developments was critical.

5.6 Path Loadings Results

According to the path loading model all of the questions gets higher values >3 and the three h ypothesis gets (3.70 , 3.62 , 3.76) Respectively.

According to all previous inputs It’s confirms that implementing online tendering platform for public construction projects in Jordan are welcomed from the participants.

5.7 Hypothesis test

As we mentioned before the Friedman test is a non-parametric statistical test developed by Milton Friedman. Similar to the parametric repeated measures ANOVA, the procedure involves ranking then considering the values of ranks by columns. And because we use ranking we found that using Friedman test is the best method to determine our hypotheses ,Werther are correct nor wrong, the tests done in 10th of April 2021.

Knowing that if a p-value less than 0.05 (typically ≤ 0.05) is statistically significant. It indicates strong evidence against the null hypothesis, as there is less than a 5% probability the null is correct (and the results are random). Therefore, we reject the null hypothesis, and accept the alternative hypothesis.

c) $H_{0:}$ **It's better to use online tendering platform over current traditional way.**

The results of the hypotheses were typically p-value ≤ 0.05 it was exactly (p =.984) Therefore, we accept the null hypothesis.

d) $H_{1:}$ **Incorporating ML in the e-tendering platform will improve the overall project's quality. (Machine learning)**

The results of the hypotheses were typically p-value ≤ 0.05 it was exactly (p =.316) Therefore, we accept the null hypothesis.

D) $H_{2:}$ **Using online tendering platform will cut project costs,save time and increase tende ring efficiency.**

The results of the hypotheses were typically p-value ≤ 0.05 it was exactly (p =.878) Therefore, we accept the null hypothesis.

All across our study, we were interested in providing additional relationships and correlation s for a better interpretation of our findings and to draw conclusions about some of the events and relationships that occurred in our sample.

And we found the following:

1. **Regarding years of experience:**

Using the average of means, we were able to identify the most experienced group of individuals who were most welcomed to involved in and embraced the implementation of an e-platform in Jordan's tendering system. As we divide them into four classes (0-5, 5-10, 10-15 , more than 15 years of experience) and by taking the average of the means of the survey responses, which were (3.69, 3.67, 3.71, 3.57) respectively as following:

Category (Years of Experience)	N	Average of Means
0-5	40	3.69
5-10	26	3.67
10-15	21	3.71
+More than 15	23	3.57

Table 4:Years average of means

It was noticed that the category with expertise ranging from 10-15 years accepted the new tendering system the most with 3.71 average of means.

In addition, the category with more than 15 years of experience was less likely to welcome the new tendering system, with a 3.57 average of means.

2. **Regarding The Inquirer's Position :**

Our survey centered on the major groups, which were categorized into top industry players (Employees of the MPWH, Consultative, Contractors). And by using average of means and media ns of the survey responses it was as following:

Position	**Average of means**	**Average of medians**
Contractors	3.66	3.87
Consultative	3.65	3.87

Employees of the MPWH	3.69	3.97

Table 5:Position average of means

It was shown that Employees of the MPWH were identified to be the most embracing of the implementing of the new tendering system with average of means and median of (3.69,3.97) respectively.This relationship was particularly important since the employees seem to realize the importance and need to introduce a modern tendering system rather than the conventional one since these employees are the individuals that have the most interaction with the current tendering system, they are the most informed and aware about its disadvantages and shortcomings, but they're also the most capable of identifying and preferring a viable alternative by which to facilitate business, and it also demonstrates the employees' ability to accept a modern and rigid system which indicates a general desire for reformulation of the existing tendering system for the good of the employee , business and all other parties.

In this article, we moved a next step beside our previous analysis as we seek to describe the reliability and validation of the implementation of online tendering platform for public constructio n projects in Jordan as the principles of reliability and validity are used to assess the consistency of study. They show the accuracy of which a procedure, technique, or test measures. The consistency of a measure is referred to as its reliability, while the accuracy of a measure is referred to as its validity.

Internal consistency reliability was analyzed by using Cronbach's alpha coefficient, and test-retest reliability was analyzed by using Spearman's rank correlation coefficient to strengthen the study hypothesis.

5.8 Cronbach's alpha:

Cronbach's alpha is a metric that is used to evaluate the reliability, or internal accuracy, of a collection of scale or test objects. In other words, the reliability of any given statistic applies to the d egree to which it is a reliable indicator of a concept, and Cronbach's alpha is one method of determi ning the strength of that accuracy.The resulting coefficient of reliability varies from 0 to 1 and provides an overall estimate of the reliability of a test. If all of the scale items are completely independent of one another (i.e., are not correlated or share no covariance), then = 0; otherwise, if all of the items have strong covariances, then would exceed 1 when the number of scale items

reaches infinity. In other words, the greater the multiplier, the more the elements share covariance and more likely calculate the same underlying term.

5.8.1 Results

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.873	.888	23

Table 6: Cronbach's Alpha results

Our Cronbach's Alpha is **0.873**

- We can follow the rule of George and Mallery (2003):

> .9 (Excellent), > .8 (Good), > .7 (Acceptable), > .6 (Questionable), > .5(Poor), and if < .5 (Unacceptable).

- Cronbach's alpha reliability coefficient normally ranges between 0 and 1.
- The closer the coefficient is to 1.0, the greater is the internal consistency of the items (variables) in the scale.
- Cronbach's alpha coefficient increases either as the number of items (variables) increases, or as the average inter-
  item correlations increase (i.e., when the number of items is held constant). Which mean our results are more than accepted and our survey has Very Good reliability.

5.8.2 Why we Use Cronbach's Test:

Regardless of the fact that there are alternatives to Cronbach's alpha, such as the omega coefficient or different versions of glb, which some consider to be good alternatives, we discovered that Cronbach's alpha is by far the most frequently used approach for assessing internal reliability through our research. Even though its limits are widely known, this treatment has shown to be remarkably robust to the passage of time.

5.9 Spearman test:

Spearman rank-order correlation coefficient (also known as Spearman's correlation) is a nonparametric estimate of the strength and orientation of interaction between two variables calculated on at least an ordinal scale. It is represented by the symbol rs (or the Greek letter rho). The correlation coefficient has a value between +1 and -1. A value of 1 means that the two variables are perfectly associated.
As the correlation coefficient value approaches zero, the relationship between the two variables weakens. The sign of the coefficient represents the direction of the relationship; a + sign indicates a positive relationship and a – sign indicates a negative relationship.
In statistics, four types of correlations are typically measured: Pearson correlation, Kendall rank correlation, Spearman correlation, and Point-Biserial correlation.

- Spearman correlations are often between -1 and +1.
- Spearman correlations should be used for all variables except nominal variables. Pearson correlations, on the other hand, are normally the better option where all factors are either metric or dichotomous.
- Spearman similarities show monotonous -rather than sequential- relationships.
- Outliers have no impact on Spearman correlations. However, instead of deciding if Spearman or Pearson correlations are preferred, outliers should be omitted from studies. Spearman's rank correlation coefficient was used in our study to evaluate associations regarding the three hypothesis we done before for more accurate data we mad a representation for the three hypothesis as following:

5.9.1 Results

a) $H_{0:}$It's better to use online tendering platform over current traditional way.

Correlations				
			My experience with online government e-services is good	I trust government websites that provide electronic services to citizens
Spearman's rho	My experience with online government e-services is good	Correlation Coefficient	1.000	.581**
		Sig. (2-tailed)	.	.000
		N	111	111
	I trust government websites that provide electronic services to citizens	Correlation Coefficient	.581**	1.000
		Sig. (2-tailed)	.000	.
		N	111	111
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 7: Spearman results for first Hypothesis

There was a significant positive correlation between 2 of hypothesis *H*0 questions rs(109)= .581.

***B) $H_{1:}$* Incorporating ML in the e-tendering platform will improve the overall project's quality. (Machine learning).**

Correlations				
			The project cost estimated in advance by MPHW will improve the quality of the project and reduce violations or frauds in implementation	I think that estimating the cost of the project by the Ministry of Public Works and Housing before the bidding will help the bidders to achieve a profit margin.
Spearman's rho	The project cost estimated in advance by MPHW will improve the quality of the project and reduce violations or frauds in implementation	Correlation Coefficient	1.000	.725**
		Sig. (2-tailed)	.	.000
		N	111	111
	I think that estimating the cost of the project by the Ministry of Public Works and Housing before the bidding will help the bidders to achieve a profit margin.	Correlation Coefficient	.725**	1.000
		Sig. (2-tailed)	.000	.
		N	111	111
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 8: Spearman results for Second Hypothesis

There was a significant positive correlation between 2 of hypothesis H_1 questions rs(109)= .725

H_2: **Using online tendering platform will cut project costs,save time and increase tendering efficiency.**

Correlations				
			The electronic bidding platform, if implemented, will reduce operational costs for both the bidder and the ministry alike.	I believe that the electronic bidding platform will facilitate and speed up the communication process between the bidder and the ministry.
Spearman's rho	The electronic bidding platform, if implemented, will reduce operational costs for both the bidder and the ministry alike.	Correlation Coefficient	1.000	.636**
		Sig. (2-tailed)	.	.000
		N	111	111
	I believe that the electronic bidding platform will facilitate and speed up the communication process between the bidder and the ministry.	Correlation Coefficient	.636**	1.000
		Sig. (2-tailed)	.000	.
		N	111	111
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 9: Spearman results for Third Hypothesis

There was a significant positive correlation between 2 of hypothesis *H*2 questions rs(109)= .636

The test-retest reliability using the Spearman's Rank Correlation Coefficient (rs) ranged from 0.9 to 1.0, ($p<0.05$) which exhibits very good reliability and stability . The highest Spearman's Rank Correlation Coefficient (rs) value obtained was from hypothesis *H*1 representation (rs=.725) dimension whereas the lowest was obtained from hypothesis *H*0 (rs=.581).

This demonstrates that by using all of our previous data analysis methods, Spss as well as others , we were able to prove the Effective and accommodating research hypothesis and the ability to implementation of online tendering platform for public construction projects in Jordan successfull y.

5.9.2 Why we use Spearman test :

A correlation coefficient indicates how closely two variables likely to fluctuate in tandem. The coefficient reflects the relationship's intensity as well as its orientation. Minitab provides two types of correlation analysis. Spearman rank-order correlation and Pearson product-moment correlation The Pearson correlation is a method for determining the linear connection between two continuous data. When a change in one element causes a proportional change in the other, the connection is said to be linear. and The Spearman correlation determines if two continuous or ordinal data have a monotonic connection. The parameters in a monotonic connection tend to change at the same time, but not always at the same rate. Instead of using raw data, the Spearman correlation coefficient uses ranking values for each variable, Instead of using raw data, the Spearman correlation coefficient uses ranking values for each variable. so we applied it in our research.

6. Discussion and Future work

6.1 Discussion:

Tendering and procurement are critical components of doing business in today's global world, and the importance of Tendering and procurement in organizations cannot be overstated. Despite its significance, it faces many obstacles that must be addressed in order to make the process unit of organizations more vibrant, as their operations have a significant effect on the overall success of the organization or entity.

As a result, in order to overcome the majority of the problems in this unit, the e-tendering process has been introduced to replace the conventional procurement method.

As tender procedures must be proper and well-outlined in order to reduce waste and increase efficiencies when transitioning from conventional paper-based tendering approaches to electronic methods, the fundamental rules of tendering remain the same, with the exception that the exchanging of records and information must be performed online. The three key advantages of e-tendering are cost reduction and time savings in the tender process, as well as improved project efficiency through the use of ML.

In this paper, we addressed four major research objectives that were essential for evaluating the implementation of an online tendering process for public construction projects in Jordan.

We were able to obtain consistent and appropriate findings and conclusions about our objectives by conducting surveys and interviews, In addition, we have been analyzing and evaluating our research hypothesis that encourages the transition to e-platforms and demonstrates its benefits.

The paper offers an outline of the need for an e-Tendering system as well as an evaluation of the current way of tendering at MPWH in Jordan, and it was shown that the current method had a number of drawbacks that could impact overall quality along with the tendering process and extending to the project itself, not to mention the extra expense that could be easily cut using a online platform , were we was able to identify the impact of e-tendering platform starting from cutting cost, save time and increase tendering efficiency not to mention benefits of incorporating the ML to improve overall quality.The paper also shed the light to the challenges and barriers that would face the online platform as adapting the construction contract into the form of e-Tendering and discussing Jordan's infrastructure's readiness to run such a digital and online system, routines, the workers' skills and beliefs in the new system and the lack of qualified personnel and training.

One of the most important objectives that was addressed was the level of acceptance for the online platform, since there were worries about some resistance from governmental and MPHW employees However, according to our findings, governmental and MPHW employees embraced the online platform the most, followed by contractors and consultatives. This was reassuring, as it provided strong proof of the experiment's success.

Despite the diversity of different methods of data analysis used to prove the validity of the hypotheses from one research to another and from one study to another in previous studies, the results of our hypotheses regarding the impact of the implementation of online platform in tendering process, which we previously analyzed, are supported by the results that appeared in previous studies of the same or similar theories, of despite the multiplicity and different methods of data analysis used to prove the validity of the hypotheses from one research to another and from one study to another, there was still anything in common where we find as The findings' correlation reinforces our theories, which we will describe in depth in the following lines.

a) **Regarding H_0: It's better to use online tendering platform over current traditional way.**

We found in (Candra S .,2017) paper that discuss The impact of e-Procurement practice in Indonesia government where her research findings that gathered using a Bahasa-language handwritten questionnaire. All of the data was collected in one month, and 60 questionnaires have been distributed in Indonesia.Based on it's findings, it can be inferred that the introduction of e-procurement in LPSE Bekasi has had a favorable and important effect on e-marketplace participation. It can be shown from the beta coefficient that the higher the efficiency of the programmed or implementation of e-procurement, as the hypothesis of e-procurement implementation was adopted with beta of.84, R square of.79, and p meaning greater than 0.001, indicating that it is a better implementation of e-procurement than the existing methods.

We also found in (Basahel.A,2017) paper about Measuring success of e-government of Saudi Arabia as he performed statistical analysis with the aid of normal functions for calculating percentages of performance and/or loss on a five-point Likert scale to obtain outcomes from the responses. His findings approved our hypothesis as majority of his sample size was welcoming the implementation of online platforms especially among women in west coast in KSA.

b) **Regarding $H1$: Incorporating ML in the e-tendering platform will improve the overall project's quality. (Machine learning).**

We notice in (Rodrı´guez,M,2020) in his paper the impact of ML on tendering in Spain the outcomes of his ten separate evaluations are discussed and analyzed in a real case study from Spain to determine the bidders recommender. as algorithm's preparation and forecasting phases to predict the winning business, as his research demonstrated the role of ML in the tendering process and its ability to gather a large amount of data.

Also (Diabagate,A,2015.) IN his paper E-Tendering: Modeling of a multi-agents system integrating the concepts of ontology and big data. His research focuses on the modelling of a computer system that employs sophisticated computer methods such as multi-agent networks , semantic web ontologies, and big data to incorporate an IT solution for the dematerialization of the tendering process. His analysis shown the importance of using ML approaches in tendering process to :

- Ensure that public procurement is dematerialized in a smart way, and that tenders are evaluated intelligently.
- Enable the implementation and use of a decision support tool built on big data technology and data science approaches for data collection and mining (data analysis, artificial learning, natural language processing, emotion analysis, social media analytics, data visualisation, etc.).
- Minimize risks, especially those involving information protection.
- These findings approved our hypothesis of the importance of using ML and it's outcomes which encourage us for deep implementation of using ML and AI.

E) Regarding $H_{2:}$ **Using online tendering platform will cut project costs,save time and increase tendering efficiency.**

In (Alyahya, Moath & Panuwatwanich, Kriengsak,2018) paper that discussed the Implementing e-Tendering to Improve the Efficiency of Public Construction Contract in Saudi Arabia as he discusses an e-Tendering model that was created to increase the quality of Saudi Arabia's public building contract. His study examines the problem of conventional tendering and suggests that realistic tools be used to increase the process' effectiveness.

His analysis based on 3 stages in order to build the study model and validate the questions used in the questionnaire survey, an interview with eight building procurement experts was conducted and 152 participant was the sample.

The study questionnaire's production, dissemination, and data collection methods, including a focus group with IT experts to ensure that the process meets the IT specifications. It was reported that almost 80% of respondents agree that e-Tendering would decrease the number of workers employed in procurement departments,

and 63% expect that there will be a drop in administrative expenses and time spent on purchasing supplies using e-Tendering. in addition Approximately 60% of respondents said that e-Tendering would maximize competitive advantage and improve the tender decision-making process. Which strengthen our hypothesis that cut project costs, save time and increase tendering efficiency is main advantages of e-tenderingAdding to that (Mufleh,M ,2020) paper that discussed The mediating role of Jordanian Joint Procurement Law: an examination of the effects of e-procurement enablers on the reduction of expenditure.

Her survey size was procurement joint operations (PJ) that was carried out by the Ministry of Health, the Royal Medical Services Department, and the official Jordanian university hospitals, with 700 personnel spread across 19 branches in different locations. Thus, 700 questionnaires were circulated, with a total of 352 completed, returned, and analyzed. In terms of statistical analysis, there has been a shift in the R (square) score, especially from 35.8 percent to 74.5 percent, which may be interpreted to mean that Jordanian Joint Procurement Law increases the percentage of R (square) by up to 38.7 percent when used as a bargaining measure in the process under consideration.This paper emphasizes the relationship between confidence in IT and e-procurement systems, in line with cost-cutting measures.Such a partnership improved metrics in relation to the JordanianJoint Procurement Law's position.

Which strongly supports our hypothesis, particularly given that it was in the same geographical reg ion and the statistical sample's similarity.We conclude from the foregoing that all prior experiments clearly affirm all of the assumptions that we set forth in the research, which will ultimately lead to the experiment's success and shows the willingness of local institutions and communities to consider such a concept.

6.2 Future work

we believe that it is critical to implement an online tendering platform for public construction projects in Jordan, as well as the embrace of Jordanian institutions for such a digital transformation , in order to keep up with the demands were implementing such a system would increase Jordan's competitiveness with the rest of the region’s markets and improving the investment environment and we believe there are still a gap that could be fulfilled by implementing Machine Learning within E-commerce applications to improve the experience overall and customize business rules via Artificial Intelligent and offer more Unique User Experience.

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Appendix:

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles 25th		
من المشروع كلفة تقدير سيساهم العطاء طرح قبل الوزارة قبل المتقدمين بين المنافسة بتقليل للعطاء.	111	3.50	1.143	1	5	3.00		
من مسبقا المقدرة المشروع تكلفة و العامة الأشغال وزراة قبل تحسين على ستعمل الإسكان من التقليل و المشروع جودة الغش او التنفيذ في التجاوزات.	111	3.66	1.148	1	5	3.00		
من المشروع كلفة تقدير أن أعتقد و العامة الأشغال وزراة قبل العطاء طرح قبل الإسكان من للعطاء المتقدمين ستساعد ربح هامش تحقيق.	111	3.70	1.014	1	5	3.00		

Friedman Test

Ranks

	Mean Rank
المتقدمين بين المنافسة بتقليل العطاء طرح قبل الوزارة قبل من المشروع كلفة تقدير سيساهم للعطاء.	1.94
جودة تحسين على ستعمل الإسكان و العامة الأشغال وزراة قبل من مسبقا المقدرة المشروع تكلفة الغش او التنفيذ في التجاوزات من التقليل و المشروع.	2.00

ستساعد العطاء طرح قبل الإسكان و العامة الأشغال وزراة قبل من المشروع كلفة تقدير أن أعتقد ربح هامش تحقيق من للعطاء المتقدمين.	2.07

Test Statistics[a]

N	111
Chi-Square	2.306
Df	2
Asymp. Sig.	.316

Hypothesis Test Summary

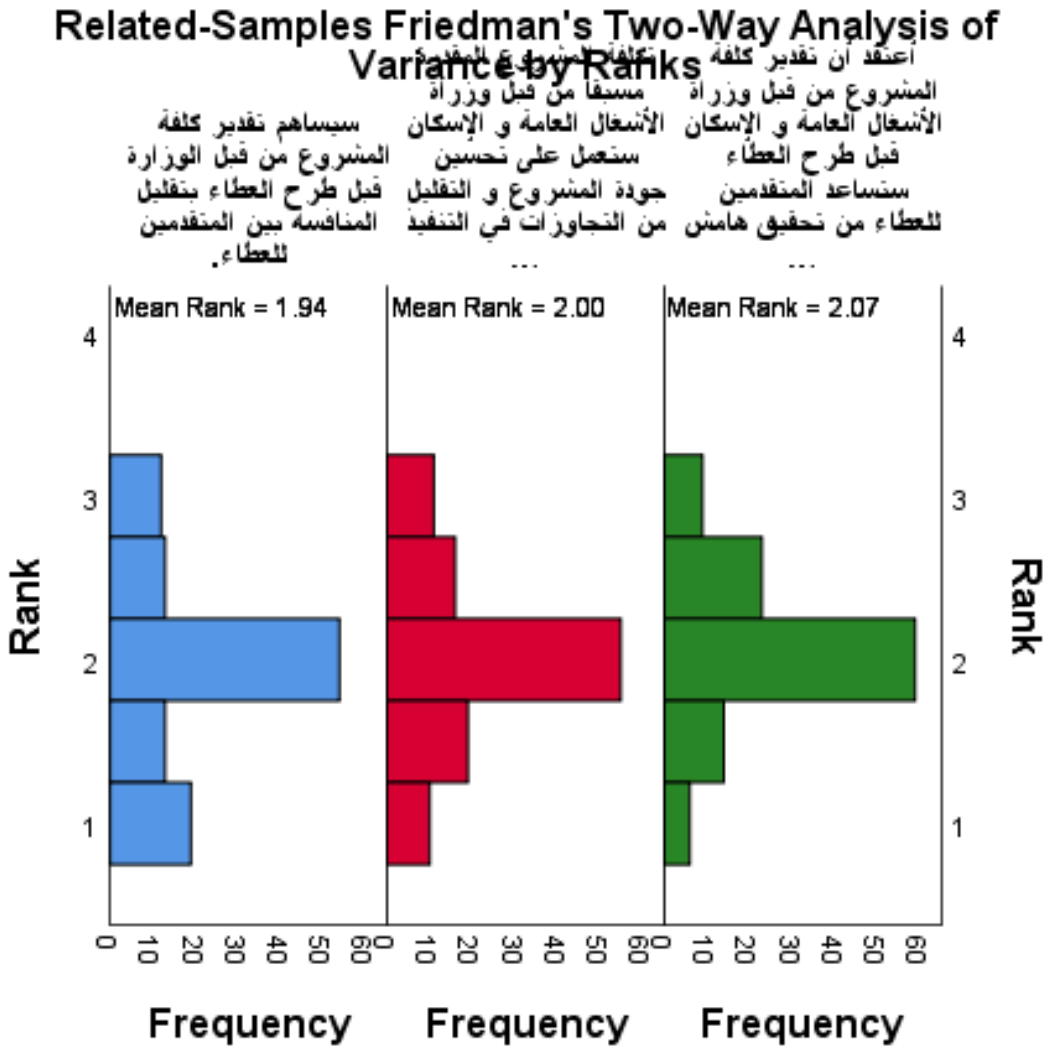
	Null Hypothesis	Test	Sig.	
1	The distributions of سيساهم قبل الوزارة قبل من المشروع كلفة تقدير بين المنافسة بتقليل العطاء طرح المشروع تكلفة للعطاء، المتقدمين الأشغال وزراة قبل من مسبقا المقدرة تحسين على ستعمل الإسكان و العامة التجاوزات من التقليل و المشروع جودة الغش او التنفيذ في. and تقدير أن أعتقد الأشغال وزراة قبل من المشروع كلفة العطاء طرح قبل الإسكان و العامة تحقيق من للعطاء المتقدمين ستساعد ربح هامش. are the same.	Related-Samples Friedman's Two-Way Analysis of Variance by Ranks	.316	

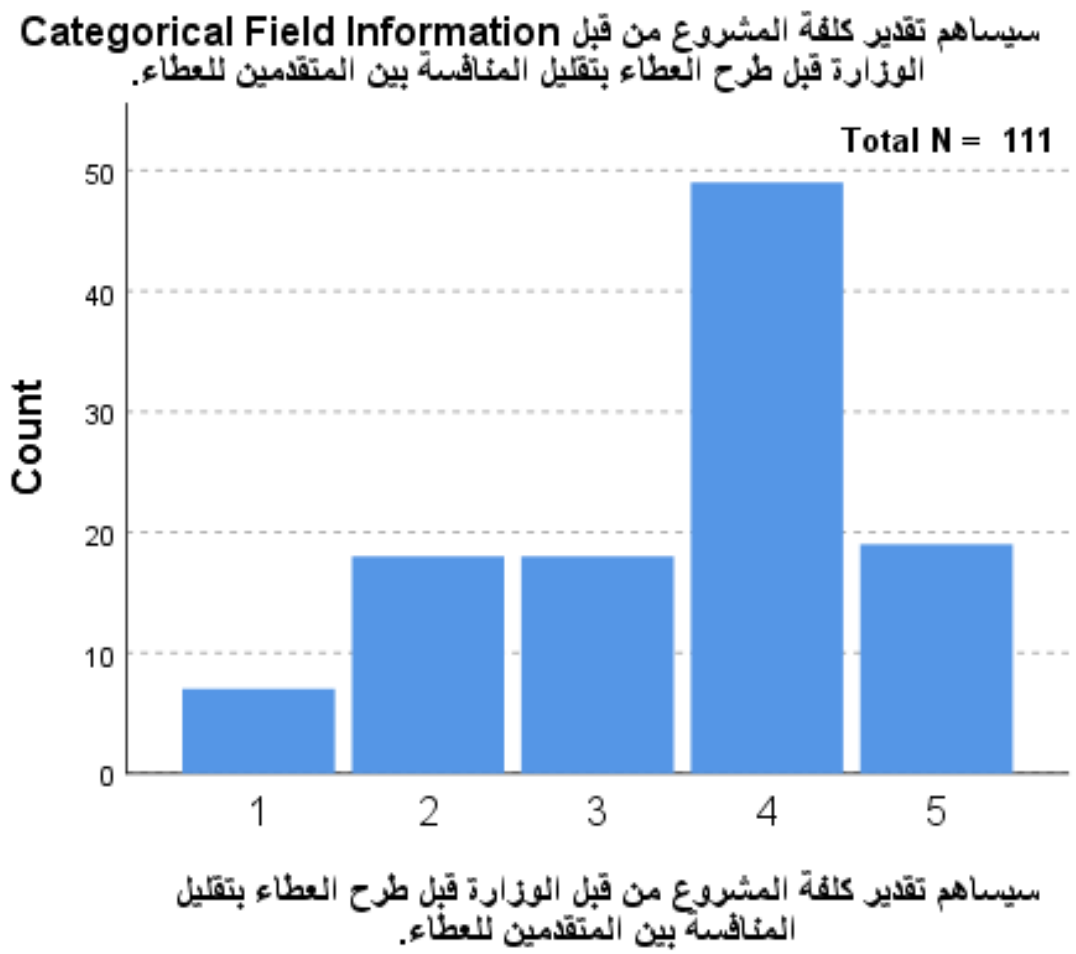
Related-Samples Friedman's Two-Way Analysis of Variance by Ranks Summary

Total N	111
Test Statistic	2.306[a]
Degree Of Freedom	2
Asymptotic Sig.(2-sided test)	.316

Questions and Catagories

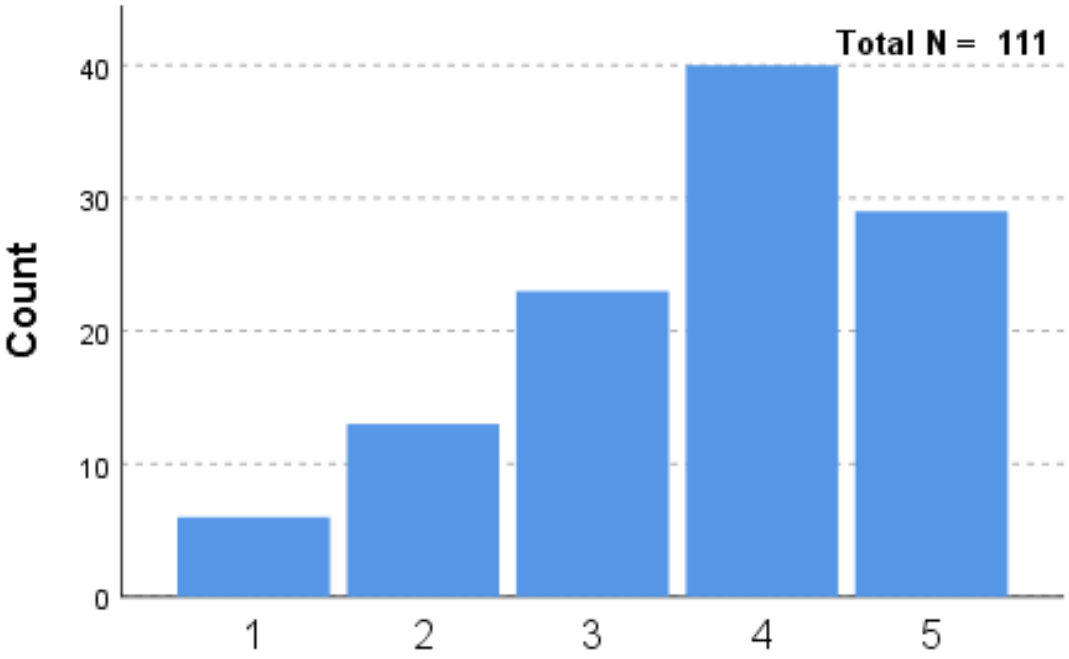
Question name	Categories
سيساهم تقدير كلفة المشروع من قبل الوزارة قبل طرح العطاء بتقليل المنافسة بين المتقدمين للعطاء.	A1
تكلفة المشروع المقدرة مسبقا من قبل وزراة الأشغال العامة و الإسكان ستعمل على تحسين جودة المشروع و التقليل من التجاوزات في التنفيذ او الغش.	A1
أعتقد أن تقدير كلفة المشروع من قبل وزراة الأشغال العامة و الإسكان قبل طرح العطاء ستساعد المتقدمين للعطاء من تحقيق هامش ربح.	A1
تجربتي مع الخدمات الحكومية الإلكترونية عبر الإنترنت جيدة.	A2
اثق في المواقع الحكومية التي تقدم خدمات إلكترونية للمواطنين	A2
أعتقد أن البنية التحتية التكنولوجية الحالية في الأردن قادرة على دعم منصة العطاءات الإلكترونية.	A2
في المستقبل القريب، اعتقد ان الحكومة ستكون قادرة على تبني هذه الفكرة و تنفيذها.	A2
انا على دراية كاملة بآلية سيرالعطاءات الحكومية في وزراة الأشغال في الأردن.	A2
أجد أن الطريقة الحالية في إدارة العطاءات في وزارة الأشغال فعالة.	A2
ان وجود نظام فعال على قدر عالي من الكفاءة و التنظيم و سرعة الوصول لبيانات المشاريع سواء القديمة او الجديدة هو أمر مفقود في نظام العطاءات الحالي في وزارة الأشغال.	A2
اعتقد ان الحل لجعل العطاءات أكثر ملاءمة و أسهل هو رقمنة العملية لجميع مراحل العطاء.	A2
من وجهة نظري، أرى أن استخدام منصات المناقصات الإلكترونية سيضمن استمرارية الأعمال وإمكانية الوصول إلى البيانات وحفظ السجلات.	A2
أعتقد أن استخدام منصة العطاءات الإلكترونية ستقلل من نظام الأوراق التلقليدي و ما يتبعه من مشاكل في ضياع المستندات او تلفها.	A2
الشركات التي تتميز بتقديم جودة عالية من العمل و المتقدمة للعطاء ستهتم باستخدام المنصة الإلكترونية اكثر من الطريقة التقليدية للتقدم للعطاءات.	A2
اعتقد أن سرعة تبادل الكتب الرسمية عبر المنصة الألكترونية و عدم الإنتظار لحين ارسالها لديوان في وزارة الأشغال من النقاط المهمة لكلا الطرفين الشركات الفائزة بالعطاء و الوزارة.	A3
أعتقد أن استخدام منصة العطاءات الإلكترونية ستسرع من اجراءات و مراحل العطاء.	A3
اعتقد أن أمن المعلومات عال جدا على هذه المنصة	A3
اشجع في الدخول على نظام المناقصات الإلكترونية الأردني	A3
أعتقد أن المتقدمين لدخول العطاءات سيتمكنون من استخدام المنصة الإلكترونية بسهولة.	A3
أعتقد ان قطاع الإنشاءات قادر على التحول و التكيف مع منصة العطاءات الإلكترونية.	A3
اعتقد أن منصة العطاءات الإلكترونية ستقضي على الممارسات الخاطئة في عملية تقديم العطاءات.	A3
ستعمل منصة العطاءات الإلكترونية في حال تنفيذها على تقليل الكلف التشغيلية على كل من المتقدم للعطاء و الوزارة على حد سواء.	A3
أعتقد أن منصة العطاءات الإلكترونية ستسهل و تسرع من عملية التواصل بين الفائز بالعطاء و الوزارة.	A3
الأسئلة الممثلة للبحث :	
تحديد تكلفة الشروع مسبقا باستخادم تعلم الآلة سيساعد على رفع جودة المشرع	A1
العطاءات الالكترونية أفضل مقارنة بالعطاءات الحكومية التقليدية	A2
مميزات النظام الالتكروني تأثيره على وضع وسهولة العطاءات	A3


Related-Samples Friedman's Two-Way Analysis of Variance by Ranks
أعتقد أن تقدير كلفة المشروع من قبل وزارة الأشغال العامة و الإسكان قبل طرح العطاء ستساعد المتقدمين للعطاء من تحقيق هامش ...
مسبقا من قبل وزارة الأشغال العامة و الإسكان ستعمل على تحسين جودة المشروع و التقليل من التجاوزات في التنفيذ ...
سيساهم تقدير كلفة المشروع من قبل الوزارة قبل طرح العطاء بتقليل المنافسة بين المتقدمين للعطاء.
Mean Rank = 1.94
Mean Rank = 2.00
Mean Rank = 2.07
Rank
Frequency
0
10
20
30
40
50
60
1
2
3
4



سيساهم تقدير كلفة المشروع من قبل الوزاره قبل طرح العطاء بتقليل المنافسة بين المتقدمين للعطاء. field is ordinal but is treated as continuous in the test.

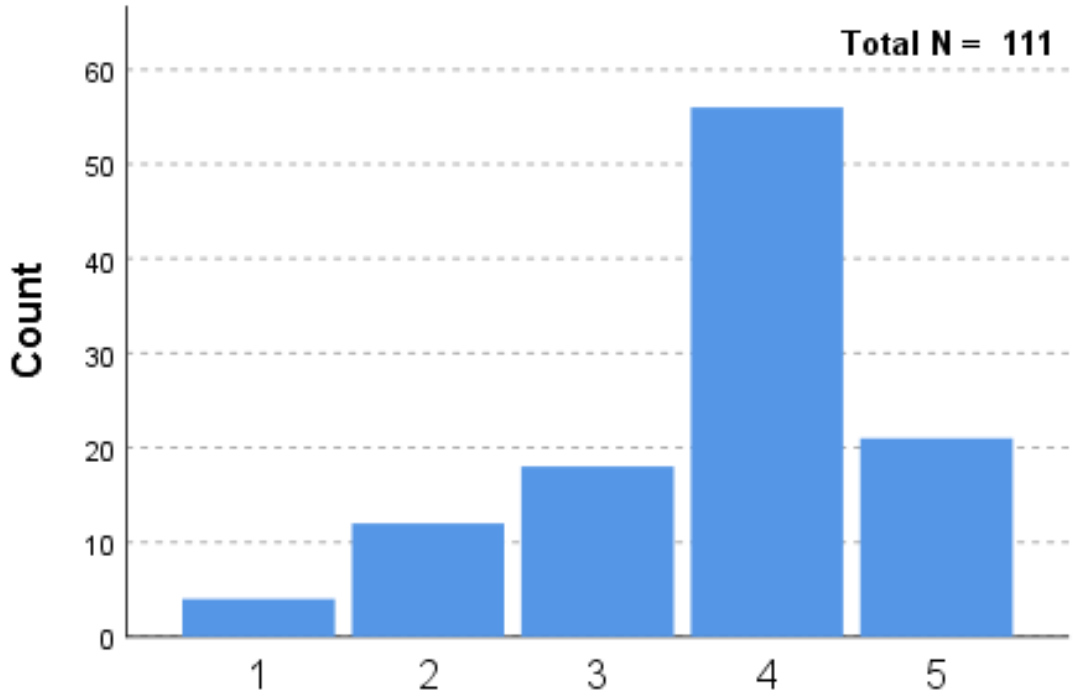
Categorical Field Information تكلفة المشروع المقدرة مسبقا من قبل وزراة الأشغال العامة و الإسكان ستعمل على تحسين جودة المشروع و التقليل من التجاوزات في التنفيذ او الغش.



تكلفة المشروع المقدرة مسبقا من قبل وزراة الأشغال العامة و الإسكان ستعمل على تحسين جودة المشروع و التقليل من التجاوزات في التنفيذ او الغش.

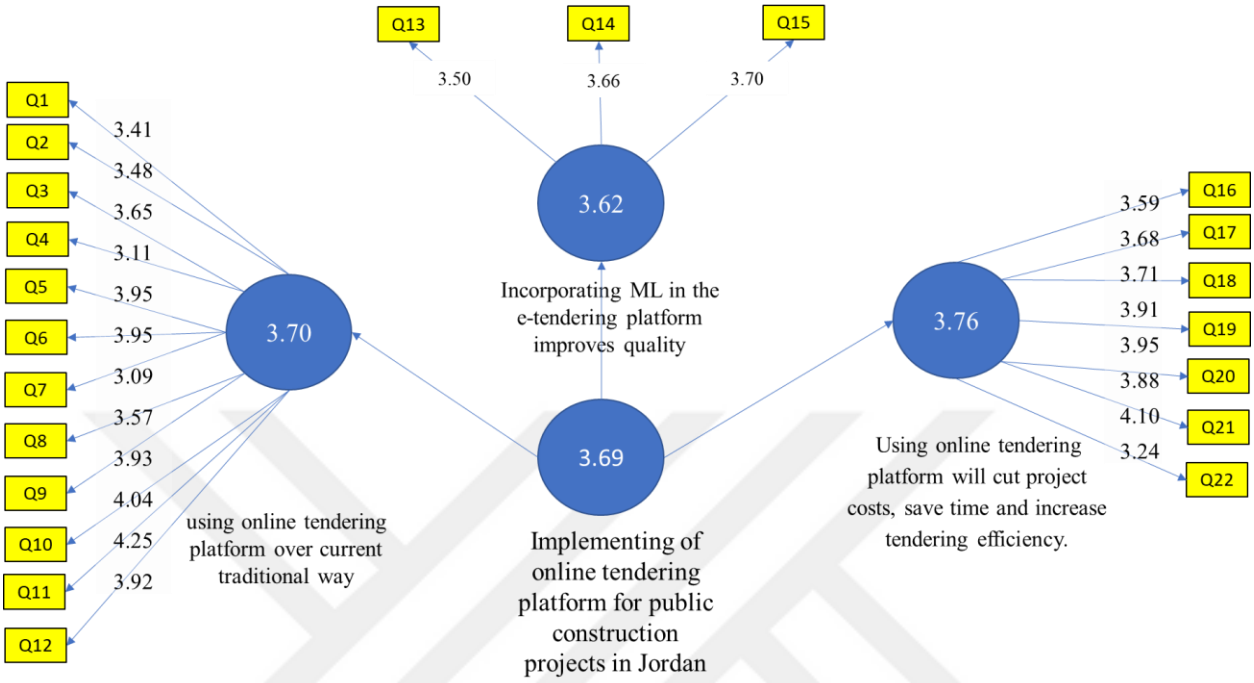
تكلفة المشروع المقدره مسبقا من قبل وزراه الأشغال العامة و الإسكان ستعمل علي تحسين جوده المشروع و التقليل من التجاورات في التنفيذ او الغش. field is ordinal but is treated as ...

Categorical Field Information أعتقد أن تقدير كلفة المشروع من قبل وزراة الأشغال العامة و الإسكان قبل طرح العطاء ستساعد المتقدمين للعطاء من ...



أعتقد أن تقدير كلفة المشروع من قبل وزراه الأشغال العامة و الإسكان قبل طرح العطاء ستساعد المتقدمين للعطاء من تحقيق هامش ربح. i ...field is ordinal but is treated as continuous

Path loading for modify model :



Annova: Single Factor :

Groups	*Count*	*Sum*	*Average*	*Variance*
Column 1	20	89	4.45	0.681579
Column 2	20	77	3.85	0.344737
Column 3	20	75	3.75	0.197368
Column 4	20	81	4.05	0.576316
Column 5	20	79	3.95	0.681579
Column 6	20	77	3.85	1.502632
Column 7	20	60	3	0
Column 8	20	20	1	0
Column 9	20	61	3.05	0.05
Column 10	20	87	4.35	0.871053
Column 11	20	88	4.4	0.673684
Column 12	20	73	3.65	0.555263
Column 13	20	73	3.65	0.344737
Column 14	20	86	4.3	0.852632
Column 15	20	69	3.45	0.997368
Column 16	20	94	4.7	0.642105
Column 17	20	58	2.9	1.042105
Column 18	20	79	3.95	0.05
Column 19	20	65	3.25	1.039474
Column 20	20	78	3.9	0.621053
Column 21	20	63	3.15	0.555263

Column 22	20	71	3.55	1.207895
Column 23	20	59	2.95	0.155263
Column 24	20	98	4.9	0.2
Column 25	20	72	3.6	0.463158
Column 26	20	72	3.6	0.989474
Column 27	20	71	3.55	0.576316
Column 28	20	80	4	0.736842
Column 29	20	77	3.85	0.45
Column 30	20	78	3.9	0.936842
Column 31	20	82	4.1	0.831579
Column 32	20	78	3.9	0.094737
Column 33	20	78	3.9	0.094737
Column 34	20	80	4	0
Column 35	20	74	3.7	0.221053
Column 36	20	80	4	0.842105
Column 37	20	91	4.55	0.576316
Column 38	20	82	4.1	0.621053
Column 39	20	75	3.75	1.776316
Column 40	20	91	4.55	0.471053
Column 41	20	81	4.05	0.155263
Column 42	20	68	3.4	0.252632
Column 43	20	80	4	0
Column 44	20	60	3	0
Column 45	20	65	3.25	1.565789
Column 46	20	87	4.35	1.081579
Column 47	20	54	2.7	0.326316
Column 48	20	73	3.65	0.555263
Column 49	20	62	3.1	1.042105
Column 50	20	85	4.25	0.618421
Column 51	20	80	4	1.368421
Column 52	20	61	3.05	0.576316
Column 53	20	39	1.95	0.05
Column 54	20	88	4.4	0.673684
Column 55	20	73	3.65	0.45
Column 56	20	73	3.65	0.45
Column 57	20	67	3.35	1.502632
Column 58	20	55	2.75	1.565789
Column 59	20	73	3.65	0.555263
Column 60	20	73	3.65	0.555263
Column 61	20	72	3.6	0.673684
Column 62	20	77	3.85	0.976316

Column 63	20	68	3.4	1.726316
Column 64	20	68	3.4	1.726316
Column 65	20	74	3.7	0.431579
Column 66	20	84	4.2	1.326316
Column 67	20	72	3.6	0.989474
Column 68	20	80	4	0.842105
Column 69	20	95	4.75	0.407895
Column 70	20	71	3.55	0.681579
Column 71	20	63	3.15	2.976316
Column 72	20	81	4.05	2.892105
Column 73	20	85	4.25	0.513158
Column 74	20	78	3.9	0.936842
Column 75	20	77	3.85	0.239474
Column 76	20	74	3.7	0.852632
Column 77	20	73	3.65	0.344737
Column 78	20	77	3.85	0.555263
Column 79	20	77	3.85	0.555263
Column 80	20	66	3.3	0.642105
Column 81	20	94	4.7	0.326316
Column 82	20	79	3.95	0.576316
Column 83	20	86	4.3	0.326316
Column 84	20	75	3.75	0.197368
Column 85	20	77	3.85	0.239474
Column 86	20	75	3.75	0.197368
Column 87	20	73	3.65	0.871053
Column 88	20	73	3.65	0.45
Column 89	20	79	3.95	0.471053
Column 90	20	66	3.3	0.747368
Column 91	20	72	3.6	0.778947
Column 92	20	48	2.4	1.2
Column 93	20	81	4.05	0.155263
Column 94	20	63	3.15	0.45
Column 95	20	73	3.65	1.607895
Column 96	20	70	3.5	0.684211
Column 97	20	81	4.05	0.681579
Column 98	20	95	4.75	0.513158
Column 99	20	63	3.15	0.765789
Column 100	20	65	3.25	0.723684
Column 101	20	72	3.6	0.778947
Column 102	20	80	4	0
Column 103	20	79	3.95	2.05

Column 104	20	74	3.7	0.326316
Column 105	20	93	4.65	0.555263
Column 106	20	72	3.6	0.778947
Column 107	20	85	4.25	1.039474
Column 108	20	67	3.35	0.660526
Column 109	20	77	3.85	1.186842
Column 110	20	80	4	0
Column 111	20	72	3.6	2.042105

age mapping	age2	income	inc	normalize mode of PE	PE
2	26- 35 year	4	1.000.000- 2.000.000 IQD	3	Neutral
3	36- 50 year	4	1.000.000- 2.000.000 IQD	2	Agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	3	Neutral
2	26- 35 year	4	1.000.000- 2.000.000 IQD	2	Agree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	3	Neutral
2	26- 35 year	4	1.000.000- 2.000.000 IQD	2	Agree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	2	Agree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	1	Strongly agree
1	18- 25 year	4	1.000.000- 2.000.000 IQD	4	Disagree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	3	Neutral
1	18- 25 year	4	1.000.000- 2.000.000 IQD	3	Neutral
2	26- 35 year	4	1.000.000- 2.000.000 IQD	3	Neutral
3	36- 50 year	4	1.000.000- 2.000.000 IQD	2	Agree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	2	Agree
4	51- 60 year	4	1.000.000- 2.000.000 IQD	3	Neutral
1	18- 25 year	4	1.000.000- 2.000.000 IQD	2	Agree

2	26- 35 year	4	1.000.000- 2.000.000 IQD	2	Agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	1	Strongly agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	3	Neutral
1	18- 25 year	4	1.000.000- 2.000.000 IQD	3	Neutral
3	36- 50 year	4	1.000.000- 2.000.000 IQD	3	Neutral
3	36- 50 year	4	1.000.000- 2.000.000 IQD	2	Agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	3	Neutral
3	36- 50 year	4	1.000.000- 2.000.000 IQD	3	Neutral
2	26- 35 year	4	1.000.000- 2.000.000 IQD	3	Neutral
4	51- 60 year	4	1.000.000- 2.000.000 IQD	2	Agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	2	Agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	2	Agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	1	Strongly agree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	1	Strongly agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	2	Agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	1	Strongly agree
1	18- 25 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	4	Disagree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
1	18- 25 year	1	100.000- 250.000 IQD	4	Disagree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	3	Neutral
3	36- 50 year	1	100.000- 250.000 IQD	4	Disagree
1	18- 25 year	1	100.000- 250.000 IQD	2	Agree

2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	4	Disagree
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
1	18- 25 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	4	Disagree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	4	Disagree
1	18- 25 year	1	100.000- 250.000 IQD	1	Strongly agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
1	18- 25 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	5	Strongly Disagree
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1	18- 25 year	1	100.000- 250.000 IQD	2	Agree
3	36- 50 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	1	Strongly agree
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree
3	36- 50 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
1	18- 25 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree
3	36- 50 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	5	Strongly Disagree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree
3	36- 50 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
1	18- 25 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	1	Strongly agree
3	36- 50 year	2	250.000- 500.000 IQD	1	Strongly agree

2	26- 35 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
1	18- 25 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
3	36- 50 year	2	250.000- 500.000 IQD	1	Strongly agree
2	26- 35 year	2	250.000- 500.000 IQD	1	Strongly agree
1	18- 25 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	4	Disagree
3	36- 50 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	4	Disagree
2	26- 35 year	2	250.000- 500.000 IQD	1	Strongly agree
1	18- 25 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	1	Strongly agree
3	36- 50 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
1	18- 25 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	3	Neutral
3	36- 50 year	2	250.000- 500.000 IQD	1	Strongly agree
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
1	18- 25 year	2	250.000- 500.000 IQD	2	Agree
1	18- 25 year	2	250.000- 500.000 IQD	2	Agree
4	51- 60 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	1	Strongly agree
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	4	Disagree
3	36- 50 year	3	500.000- 1.000.000 IQD	1	Strongly agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	1	Strongly agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree

2	26- 35 year	3	500.000- 1.000.000 IQD	4	Disagree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
3	36- 50 year	3	500.000- 1.000.000 IQD	1	Strongly agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
1	18- 25 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	4	Disagree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	1	Strongly agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	4	Disagree
3	36- 50 year	3	500.000- 1.000.000 IQD	1	Strongly agree
3	36- 50 year	3	500.000- 1.000.000 IQD	4	Disagree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
3	36- 50 year	3	500.000- 1.000.000 IQD	4	Disagree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
1	18- 25 year	3	500.000- 1.000.000 IQD	1	Strongly agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree

1	18- 25 year	3	500.000- 1.000.000 IQD	1	Strongly agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	4	Disagree
2	26- 35 year	3	500.000- 1.000.000 IQD	1	Strongly agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	1	Strongly agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
1	18- 25 year	5	More than.	2	Agree
2	26- 35 year	5	More than.	1	Strongly agree
2	26- 35 year	5	More than.	2	Agree
2	26- 35 year	5	More than.	1	Strongly agree
2	26- 35 year	5	More than.	3	Neutral
2	26- 35 year	5	More than.	2	Agree
3	36- 50 year	5	More than.	2	Agree
1	18- 25 year	5	More than.	2	Agree
3	36- 50 year	5	More than.	2	Agree
2	26- 35 year	5	More than.	1	Strongly agree
2	26- 35 year	5	More than.	3	Neutral
3	36- 50 year	5	More than.	2	Agree
2	26- 35 year	5	More than.	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	1	Strongly agree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
1	18- 25 year	1	100.000- 250.000 IQD	1	Strongly agree
1	18- 25 year	1	100.000- 250.000 IQD	4	Disagree
1	18- 25 year	1	100.000- 250.000 IQD	4	Disagree
2	26- 35 year	1	100.000- 250.000 IQD	4	Disagree
3	36- 50 year	1	100.000- 250.000 IQD	1	Strongly agree
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree

2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
1	18- 25 year	2	250.000- 500.000 IQD	1	Strongly agree
1	18- 25 year	2	250.000- 500.000 IQD	1	Strongly agree
3	36- 50 year	2	250.000- 500.000 IQD	2	Agree
1	18- 25 year	2	250.000- 500.000 IQD	1	Strongly agree
1	18- 25 year	2	250.000- 500.000 IQD	1	Strongly agree
2	26- 35 year	2	250.000- 500.000 IQD	1	Strongly agree
3	36- 50 year	2	250.000- 500.000 IQD	4	Disagree
2	26- 35 year	2	250.000- 500.000 IQD	4	Disagree
3	36- 50 year	2	250.000- 500.000 IQD	4	Disagree
3	36- 50 year	2	250.000- 500.000 IQD	3	Neutral
1	18- 25 year	2	250.000- 500.000 IQD	3	Neutral
3	36- 50 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	1	Strongly agree
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
3	36- 50 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	3	Neutral
3	36- 50 year	2	250.000- 500.000 IQD	2	Agree
4	51- 60 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	1	Strongly agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
1	18- 25 year	3	500.000- 1.000.000 IQD	3	Neutral
1	18- 25 year	5	More than.	1	Strongly agree
3	36- 50 year	5	More than.	1	Strongly agree
2	26- 35 year	5	More than.	1	Strongly agree
1	18- 25 year	5	More than.	3	Neutral
2	26- 35 year	5	More than.	3	Neutral
3	36- 50 year	5	More than.	2	Agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	2	Agree
1	18- 25 year	4	1.000.000- 2.000.000 IQD	3	Neutral

2	26- 35 year	4	1.000.000- 2.000.000 IQD	2	Agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	4	Disagree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	3	Neutral
2	26- 35 year	4	1.000.000- 2.000.000 IQD	2	Agree
4	51- 60 year	4	1.000.000- 2.000.000 IQD	4	Disagree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	4	Disagree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	2	Agree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	3	Neutral
2	26- 35 year	4	1.000.000- 2.000.000 IQD	3	Neutral
2	26- 35 year	4	1.000.000- 2.000.000 IQD	1	Strongly agree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	2	Agree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	2	Agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	1	Strongly agree
3	36- 50 year	4	1.000.000- 2.000.000 IQD	2	Agree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	2	Agree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	3	Neutral
3	36- 50 year	4	1.000.000- 2.000.000 IQD	2	Agree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	2	Agree
2	26- 35 year	4	1.000.000- 2.000.000 IQD	3	Neutral
3	36- 50 year	4	1.000.000- 2.000.000 IQD	3	Neutral
4	51- 60 year	4	1.000.000- 2.000.000 IQD	1	Strongly agree
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree
3	36- 50 year	1	100.000- 250.000 IQD	3	Neutral
1	18- 25 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral

2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree
3	36- 50 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree
1	18- 25 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	3	Neutral
1	18- 25 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
1	18- 25 year	1	100.000- 250.000 IQD	2	Agree
3	36- 50 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
1	18- 25 year	1	100.000- 250.000 IQD	1	Strongly agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	1	Strongly agree
1	18- 25 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	4	Disagree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
1	18- 25 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	1	100.000- 250.000 IQD	3	Neutral
2	26- 35 year	1	100.000- 250.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	1	Strongly agree
2	26- 35 year	2	250.000- 500.000 IQD	1	Strongly agree
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
1	18- 25 year	2	250.000- 500.000 IQD	3	Neutral

2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	3	Neutral
3	36- 50 year	2	250.000- 500.000 IQD	1	Strongly agree
1	18- 25 year	2	250.000- 500.000 IQD	2	Agree
1	18- 25 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	3	Neutral
1	18- 25 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	3	Neutral
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
3	36- 50 year	2	250.000- 500.000 IQD	4	Disagree
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
1	18- 25 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	4	Disagree
1	18- 25 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	2	250.000- 500.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	1	Strongly agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
1	18- 25 year	3	500.000- 1.000.000 IQD	3	Neutral
3	36- 50 year	3	500.000- 1.000.000 IQD	1	Strongly agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
1	18- 25 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	4	Disagree
1	18- 25 year	3	500.000- 1.000.000 IQD	1	Strongly agree

2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
1	18- 25 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
3	36- 50 year	3	500.000- 1.000.000 IQD	4	Disagree
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	1	Strongly agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
4	51- 60 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	1	Strongly agree
3	36- 50 year	3	500.000- 1.000.000 IQD	1	Strongly agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	1	Strongly agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
1	18- 25 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	1	Strongly agree
2	26- 35 year	3	500.000- 1.000.000 IQD	1	Strongly agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
1	18- 25 year	3	500.000- 1.000.000 IQD	2	Agree

2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
3	36- 50 year	3	500.000- 1.000.000 IQD	3	Neutral
2	26- 35 year	3	500.000- 1.000.000 IQD	2	Agree
2	26- 35 year	3	500.000- 1.000.000 IQD	3	Neutral
1	18- 25 year	5	More than.	2	Agree
3	36- 50 year	5	More than.	2	Agree
1	18- 25 year	5	More than.	3	Neutral
1	18- 25 year	5	More than.	3	Neutral
3	36- 50 year	5	More than.	3	Neutral
3	36- 50 year	5	More than.	2	Agree
2	26- 35 year	5	More than.	2	Agree
2	26- 35 year	5	More than.	2	Agree
2	26- 35 year	5	More than.	4	Disagree
4	51- 60 year	5	More than.	2	Agree

		1. Gender:	2. Age:	3. Employment:	4. Monthly income:	5. Do you have an account on one of the social media networks?	
N	Valid	410	410	410	410	410	
	Missing	0	0	0	0	0	
Mean			2.14	2.0951	2.5756	1.1317	
Std. Error of Mean			.035	.04916	.05972	.01672	
Median			2.00	2.0000	3.0000	1.0000	
Mode			2	2.00	3.00	1.00	
Std. Deviation			.708	.99545	1.20933	.33859	
Variance			.501	.991	1.462	.115	
Minimum			1	1.00	1.00	1.00	
Maximum			4	4.00	5.00	2.00	

		6. From your own viewpoint, what is the major reason for not using social networks till now?	7. To what extent do you describe your general computer and internet knowledge?	8. How long do you surf the internet daily?	9. How long have you been using the social media?
N	Valid	410	410	410	410
	Missing	0	0	0	0
Mean		4.1317	1.5073	1.6439	1.2780
Std. Error of Mean		.06945	.02915	.03401	.02851
Median		5.0000	1.0000	2.0000	1.0000
Mode		5.00	1.00	1.00	1.00
Std. Deviation		1.40631	.59022	.68873	.57728
Variance		1.978	.348	.474	.333
Minimum		1.00	1.00	1.00	1.00
Maximum		5.00	3.00	3.00	3.00

		10. What is your preferable and mostly used social network (please choose one only)?	11. How long have you been e-shopping?	"12. How many times have you e-shopped in the past year?	"13. If you faced a problem when you did e-shopping, what's the reason?	
N	Valid	410	410	410	410	
	Missing	0	0	0	0	
Mean		2.4195	3.8244	1.7927	2.6707	
Std. Error of Mean		.05951	.06402	.06146	.06823	
Median		2.0000	4.0000	1.0000	2.0000	
Mode		2.00	5.00	1.00	2.00	
Std. Deviation		1.20497	1.29637	1.24443	1.38146	

Variance	1.452	1.681	1.549	1.908	
Minimum	1.00	1.00	1.00	1.00	
Maximum	7.00	5.00	5.00	5.00	

		"14. Which option do you prefer to do e-shopping?	15. Which application of social media do you prefer to do e-shopping?	16.What is the important reason motivate you to do e-shopping?	17. Did you do e-shopping for personal motivation or influence?
N	Valid	410	410	410	410
	Missing	0	0	0	0
Mean		2.8634	2.2390	2.8732	2.1415
Std. Error of Mean		.05473	.03493	.06028	.03637
Median		3.0000	2.0000	3.0000	2.0000
Mode		3.00	2.00	3.00	2.00
Std. Deviation		1.10826	.70724	1.22065	.73640
Variance		1.228	.500	1.490	.542
Minimum		1.00	1.00	1.00	1.00
Maximum		5.00	5.00	5.00	3.00

	18. How was the product received that you purchased?	19. Did you ever use your account on social networks in a purchasing operation on one of the social online shopping sites?	20. If you decide to complete the purchasing process, what is the preferable method of payment you use?	21. Did you ever use your account on social networks to benefit from social media features (commenting, liking, sharing, or others) in the online shopping activities for you or one of your friends on the network?

N	Valid	410	410	410	410
	Missing	0	0	0	0
Mean		3.0756	1.2756	2.3659	1.4073
Std. Error of Mean		.03788	.02209	.03648	.02429
Median		3.0000	1.0000	2.0000	1.0000
Mode		3.00	1.00	2.00	1.00
Std. Deviation		.76707	.44737	.73860	.49194
Variance		.588	.200	.546	.242
Minimum		1.00	1.00	1.00	1.00
Maximum		5.00	2.00	4.00	2.00

		22. Using my social network account in online shopping would enhance my effectiveness of online shopping.	"23. Using my social network account in online shopping would help me more in searching for the most appropriate commodity.	24.Using my social network account would help me in discussing opinions and requirements about the commodity with the producers, suppliers, and distributors more effectively.	25. Using my social network account would ease getting reviews about the commodity from its users and discuss it with them.
N	Valid	410	410	410	410
	Missing	0	0	0	0
Mean		2.39756	2.2390	2.3244	2.3659
Std. Error of Mean		.048974	.04467	.04449	.04817
Median		2.00000	2.0000	2.0000	2.0000
Mode		2.000	2.00	2.00	2.00
Std. Deviation		.991649	.90445	.90077	.97540
Variance		.983	.818	.811	.951

Minimum		1.000	1.00	1.00	1.00
Maximum		5.000	5.00	5.00	5.00

		26.Social media shopping is reliable.	27. Social media sites are concerned with maintaining the confidentiality of my data and privacy.	28. Social media such as: Facebook, what's App, Instagram,.. etc. are trust.	29. Social media shopping services make me more efficient.
N	Valid	410	410	410	410
	Missing	0	0	0	0
Mean		2.5976	2.5756	2.8000	2.5683
Std. Error of Mean		.05091	.04934	.05303	.04598
Median		3.0000	2.0000	3.0000	3.0000
Mode		3.00	2.00	3.00	3.00
Std. Deviation		1.03082	.99897	1.07380	.93111
Variance		1.063	.998	1.153	.867
Minimum		1.00	1.00	1.00	1.00
Maximum		5.00	5.00	5.00	5.00

		30. Online shopping is better than local shopping.	31. I feel the e-shopping sites is reliable.	32. I trust my friend's opinions and recommendations to do e-shopping.	33. I feel that my friends' experiences and reviews of the products which they bought are generally honest.
N	Valid	410	410	410	410
	Missing	0	0	0	0
Mean		3.1293	2.6927	2.4927	2.4171
Std. Error of Mean		.05738	.04976	.04850	.04657

Median	3.0000	3.0000	2.0000	2.0000
Mode	4.00	3.00	2.00	2.00
Std. Deviation	1.16189	1.00765	.98209	.94297
Variance	1.350	1.015	.964	.889
Minimum	1.00	1.00	1.00	1.00
Maximum	5.00	5.00	5.00	5.00

		34. I can invite my friends to try e-shopping from social media.	35. I do not know the steps of online shopping so that my desire to do e-shopping is weakness.	36. I do not know how to use a credit card so I can't shop online.	37. My lack of knowledge of the quality of the products offered prevents me from e-shopping.
N	Valid	410	410	410	410
	Missing	0	0	0	0
Mean		2.4634	2.9390	2.8683	2.5780
Std. Error of Mean		.04980	.05544	.05896	.05361
Median		2.0000	3.0000	3.0000	2.0000
Mode		2.00	4.00	4.00	2.00
Std. Deviation		1.00846	1.12264	1.19380	1.08558
Variance		1.017	1.260	1.425	1.178
Minimum		1.00	1.00	1.00	1.00
Maximum		5.00	5.00	5.00	5.00

		38. I will not do e-shopping until I make sure to keep my data confidential.	39. I think that Arab e-commerce sites are not safe enough compared to foreign ones.	40. Sometimes the actual product purchased from the website is not the same as the product displayed on the same website.	41. I previously shopped online and paid for the product but did not receive the product.
N	Valid	410	410	410	410
	Missing	0	0	0	0
Mean		2.3415	2.5390	2.1707	3.2659
Std. Error of Mean		.04861	.05338	.04969	.05932
Median		2.0000	2.0000	2.0000	4.0000
Mode		2.00	2.00	2.00	4.00
Std. Deviation		.98422	1.08093	1.00615	1.20108
Variance		.969	1.168	1.012	1.443
Minimum		1.00	1.00	1.00	1.00
Maximum		5.00	5.00	5.00	5.00

		42. Online shopping is based on high trust.	43. There is no confidence in saving personal data and not to use it for other purposes.	44. I have high knowledge about computer and internet use.	45. There should be a feature on all social media sites dedicated to e-commerce in the future.
N	Valid	410	410	410	410
	Missing	0	0	0	0
Mean		2.6220	2.7024	2.3854	2.8024
Std. Error of Mean		.05441	.04919	.05300	.07687
Median		3.0000	3.0000	2.0000	2.0000
Mode		3.00	3.00	2.00	2.00

Std. Deviation	1.10168	.99595	1.07325	1.55659
Variance	1.214	.992	1.152	2.423
Minimum	1.00	1.00	1.00	1.00
Maximum	5.00	5.00	5.00	5.00

Statistics

		46. There should be newer and faster ways to ship and deliver products and services that are purchased online in Iraq in the future.	47. E-commerce companies should provide more branches in Iraq in the future.	48. Newer and simpler financial methods must be provided to pay the amount of products that are bought online in Iraq in the future.	49. E-commerce laws must be developed to ensure the right of the producer and consumer in Iraq in the future.
N	Valid	410	410	410	410
	Missing	0	0	0	0
Mean		2.1610	2.1293	2.1707	2.0146
Std. Error of Mean		.05154	.05450	.05088	.05168
Median		2.0000	2.0000	2.0000	2.0000
Mode		2.00	2.00	2.00	1.00
Std. Deviation		1.04352	1.10362	1.03017	1.04649
Variance		1.089	1.218	1.061	1.095
Minimum		1.00	1.00	1.00	1.00
Maximum		5.00	5.00	5.00	5.00

Frequency Table

1. Gender:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	173	42.2	42.2	42.2
	Female	237	57.8	57.8	100.0
	Total	410	100.0	100.0	

2. Age:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18- 25 year	70	17.1	17.1	17.1
	26- 35 year	221	53.9	53.9	71.0
	36- 50 year	111	27.1	27.1	98.0
	51- 60 year	8	2.0	2.0	100.0
	Total	410	100.0	100.0	

3. Employment:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	124	30.2	30.2	30.2
	Government employee	184	44.9	44.9	75.1

	Private sector employee	41	10.0	10.0	85.1
	Unemployed	61	14.9	14.9	100.0
	Total	410	100.0	100.0	

4. Monthly income:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100.000- 250.000 IQD	107	26.1	26.1	26.1
	250.000- 500.000 IQD	73	17.8	17.8	43.9
	500.000- 1.000.000 IQD	146	35.6	35.6	79.5
	1.000.000- 2.000.000 IQD	55	13.4	13.4	92.9
	More than.	29	7.1	7.1	100.0
	Total	410	100.0	100.0	

5. Do you have an account on one of the social media networks?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes,	356	86.8	86.8	86.8
	No,	54	13.2	13.2	100.0
	Total	410	100.0	100.0	

6. From your own viewpoint, what is the major reason for not using social networks till now?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	It is It negatively effects on my daily works.	41	10.0	10.0	10.0
	It is not easy to learn or handle with.	45	11.0	11.0	21.0
	My general experience in using computer is weak.	57	13.9	13.9	34.9
	It is not a secured way for communication.	267	65.1	65.1	100.0
	Total	410	100.0	100.0	

7. To what extent do you describe your general computer and internet knowledge?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Good	222	54.1	54.1	54.1
	Average	168	41.0	41.0	95.1
	Poor	20	4.9	4.9	100.0
	Total	410	100.0	100.0	

8. How long do you surf the internet daily?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	From 1 to 4 hours.	196	47.8	47.8	47.8

	More than 4 hours	164	40.0	40.0	87.8
	Less than 1 hour.	50	12.2	12.2	100.0
	Total	410	100.0	100.0	

9. How long have you been using the social media?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	More than 2 years.	323	78.8	78.8	78.8
	1 to 2 years.	60	14.6	14.6	93.4
	Less than 1 year.	27	6.6	6.6	100.0
	Total	410	100.0	100.0	

10. What is your preferable and mostly used social network (please choose one only)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Google+.	34	8.3	8.3	8.3
	2.00	266	64.9	64.9	73.2
	3.00	77	18.8	18.8	92.0
	4.00	8	2.0	2.0	93.9
	5.00	3	.7	.7	94.6
	6.00	6	1.5	1.5	96.1
	7.00	16	3.9	3.9	100.0

	Total	410	100.0	100.0	

11. How long have you been e-shopping?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Google+.	49	12.0	12.0	12.0
	Instagram.	92	22.4	22.4	34.4
	Twitter.	102	24.9	24.9	59.3
	Linked in	167	40.7	40.7	100.0
	Total	410	100.0	100.0	

"12. How many times have you e-shopped in the past year?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2-5 years.	259	63.2	63.2	63.2
	11-20 times.	63	15.4	15.4	78.5
	One year ago.	25	6.1	6.1	84.6
	A few months ago.	40	9.8	9.8	94.4
	A few weeks ago.	23	5.6	5.6	100.0
	Total	410	100.0	100.0	

"13. If you faced a problem when you did e-shopping, what's the reason?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The way of delivery.	76	18.5	18.5	18.5
	Product.	179	43.7	43.7	62.2
	E-store or website.	32	7.8	7.8	70.0
	The way of payment.	50	12.2	12.2	82.2
	Other	73	17.8	17.8	100.0
	Total	410	100.0	100.0	

"14. Which option do you prefer to do e-shopping?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mobile applications.	60	14.6	14.6	14.6
	E-stores.	55	13.4	13.4	28.0
	Social media.	224	54.6	54.6	82.7
	Websites.	23	5.6	5.6	88.3
	Other.	48	11.7	11.7	100.0
	Total	410	100.0	100.0	

15. Which application of social media do you prefer to do e-shopping?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	What's App.	32	7.8	7.8	7.8

	Facebook.	273	66.6	66.6	74.4
	Instagram.	88	21.5	21.5	95.9
	Twitter.	9	2.2	2.2	98.0
	Linked in.	8	2.0	2.0	100.0
	Total	410	100.0	100.0	

16.What is the important reason motivate you to do e-shopping?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The product prices are reasonable.	61	14.9	14.9	14.9
	Quality of goods.	98	23.9	23.9	38.8
	E-shopping is easy and fast.	136	33.2	33.2	72.0
	Fast shipping and delivery.	62	15.1	15.1	87.1
	Other.	53	12.9	12.9	100.0
	Total	410	100.0	100.0	

17. Did you do e-shopping for personal motivation or influence?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Commercial dealer.	86	21.0	21.0	21.0
	Friend.	180	43.9	43.9	64.9
	Other.	144	35.1	35.1	100.0

	Total	410	100.0	100.0	

18. How was the product received that you purchased?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	By excellent mail,e.g: EMS.	21	5.1	5.1	5.1
	By a global freight company, e.g: DHL.	19	4.6	4.6	9.8
	Direct receipt at the door of house.	302	73.7	73.7	83.4
	Receipt from the company's branch.	44	10.7	10.7	94.1
	By mail box.	24	5.9	5.9	100.0
	Total	410	100.0	100.0	

19. Did you ever use your account on social networks in a purchasing operation on one of the social online shopping sites?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	297	72.4	72.4	72.4
	No	113	27.6	27.6	100.0
	Total	410	100.0	100.0	

20. If you decide to complete the purchasing process, what is the preferable method of payment you use?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	□ One of the transferring money companies (e.g. PayPal).	19	4.6	4.6	4.6
	Cash on delivery.	267	65.1	65.1	69.8
	Credit/debit card (e.g. Visa or MasterCard).	79	19.3	19.3	89.0
	Direct bank transfer.	45	11.0	11.0	100.0
	Total	410	100.0	100.0	

21. Did you ever use your account on social networks to benefit from social media features (commenting, liking, sharing, or others) in the online shopping activities for you or one of your friends on the network?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	243	59.3	59.3	59.3
	No	167	40.7	40.7	100.0
	Total	410	100.0	100.0	

22. Using my social network account in online shopping would enhance my effectiveness of online shopping.

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Strongly agree	79	19.3	19.3	19.3
	Agree	153	37.3	37.3	56.6
	Neutral	123	30.0	30.0	86.6
	Disagree	46	11.2	11.2	97.8
	Strongly Disagree	9	2.2	2.2	100.0
	Total	410	100.0	100.0	

"23. Using my social network account in online shopping would help me more in searching for the most appropriate commodity.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	81	19.8	19.8	19.8
	Agree	191	46.6	46.6	66.3
	Neutral	105	25.6	25.6	92.0
	Disagree	25	6.1	6.1	98.0
	Strongly Disagree	8	2.0	2.0	100.0
	Total	410	100.0	100.0	

24.Using my social network account would help me in discussing opinions and requirements about the commodity with the producers, suppliers, and distributors more effectively.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	70	17.1	17.1	17.1

	Agree	183	44.6	44.6	61.7
	Neutral	116	28.3	28.3	90.0
	Disagree	36	8.8	8.8	98.8
	Strongly Disagree	5	1.2	1.2	100.0
	Total	410	100.0	100.0	

25. Using my social network account would ease getting reviews about the commodity from its users and discuss it with them.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	75	18.3	18.3	18.3
	Agree	170	41.5	41.5	59.8
	Neutral	117	28.5	28.5	88.3
	Disagree	36	8.8	8.8	97.1
	Strongly Disagree	12	2.9	2.9	100.0
	Total	410	100.0	100.0	

26.Social media shopping is reliable.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	65	15.9	15.9	15.9
	Agree	122	29.8	29.8	45.6
	Neutral	152	37.1	37.1	82.7

	Disagree	55	13.4	13.4	96.1
	Strongly Disagree	16	3.9	3.9	100.0
	Total	410	100.0	100.0	

27. Social media sites are concerned with maintaining the confidentiality of my data and privacy.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	53	12.9	12.9	12.9
	Agree	154	37.6	37.6	50.5
	Neutral	132	32.2	32.2	82.7
	Disagree	56	13.7	13.7	96.3
	Strongly Disagree	15	3.7	3.7	100.0
	Total	410	100.0	100.0	

28. Social media such as: Facebook, what's App, Instagram,.. etc. are trust.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	49	12.0	12.0	12.0
	Agree	112	27.3	27.3	39.3
	Neutral	147	35.9	35.9	75.1
	Disagree	76	18.5	18.5	93.7
	Strongly Disagree	26	6.3	6.3	100.0

	Total	410	100.0	100.0	

29. Social media shopping services make me more efficient.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	51	12.4	12.4	12.4
	Agree	142	34.6	34.6	47.1
	Neutral	159	38.8	38.8	85.9
	Disagree	49	12.0	12.0	97.8
	Strongly Disagree	9	2.2	2.2	100.0
	Total	410	100.0	100.0	

30. Online shopping is better than local shopping.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	43	10.5	10.5	10.5
	Agree	80	19.5	19.5	30.0
	Neutral	112	27.3	27.3	57.3
	Disagree	131	32.0	32.0	89.3
	Strongly Disagree	44	10.7	10.7	100.0
	Total	410	100.0	100.0	

31. I feel the e-shopping sites is reliable.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	48	11.7	11.7	11.7
	Agree	127	31.0	31.0	42.7
	Neutral	157	38.3	38.3	81.0
	Disagree	59	14.4	14.4	95.4
	Strongly Disagree	19	4.6	4.6	100.0
	Total	410	100.0	100.0	

32. I trust my friend's opinions and recommendations to do e-shopping.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	60	14.6	14.6	14.6
	Agree	158	38.5	38.5	53.2
	Neutral	138	33.7	33.7	86.8
	Disagree	38	9.3	9.3	96.1
	Strongly Disagree	16	3.9	3.9	100.0
	Total	410	100.0	100.0	

33. I feel that my friends' experiences and reviews of the products which they bought are generally honest.

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Strongly agree	63	15.4	15.4	15.4
	Agree	170	41.5	41.5	56.8
	Neutral	132	32.2	32.2	89.0
	Disagree	33	8.0	8.0	97.1
	Strongly Disagree	12	2.9	2.9	100.0
	Total	410	100.0	100.0	

34. I can invite my friends to try e-shopping from social media.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	63	15.4	15.4	15.4
	Agree	172	42.0	42.0	57.3
	Neutral	113	27.6	27.6	84.9
	Disagree	46	11.2	11.2	96.1
	Strongly Disagree	16	3.9	3.9	100.0
	Total	410	100.0	100.0	

35. I do not know the steps of online shopping so that my desire to do e-shopping is weakness.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	46	11.2	11.2	11.2
	Agree	108	26.3	26.3	37.6

	Neutral	106	25.9	25.9	63.4
	Disagree	125	30.5	30.5	93.9
	Strongly Disagree	25	6.1	6.1	100.0
	Total	410	100.0	100.0	

36. I do not know how to use a credit card so I can't shop online.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	60	14.6	14.6	14.6
	Agree	112	27.3	27.3	42.0
	Neutral	90	22.0	22.0	63.9
	Disagree	118	28.8	28.8	92.7
	Strongly Disagree	30	7.3	7.3	100.0
	Total	410	100.0	100.0	

37. My lack of knowledge of the quality of the products offered prevents me from e-shopping.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	62	15.1	15.1	15.1
	Agree	156	38.0	38.0	53.2
	Neutral	107	26.1	26.1	79.3
	Disagree	63	15.4	15.4	94.6

	Strongly Disagree	22	5.4	5.4	100.0
	Total	410	100.0	100.0	

38. I will not do e-shopping until I make sure to keep my data confidential.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	78	19.0	19.0	19.0
	Agree	177	43.2	43.2	62.2
	Neutral	103	25.1	25.1	87.3
	Disagree	41	10.0	10.0	97.3
	Strongly Disagree	11	2.7	2.7	100.0
	Total	410	100.0	100.0	

39. I think that Arab e-commerce sites are not safe enough compared to foreign ones.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	73	17.8	17.8	17.8
	Agree	142	34.6	34.6	52.4
	Neutral	112	27.3	27.3	79.8
	Disagree	67	16.3	16.3	96.1
	Strongly Disagree	16	3.9	3.9	100.0
	Total	410	100.0	100.0	

40. Sometimes the actual product purchased from the website is not the same as the product displayed on the same website.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	116	28.3	28.3	28.3
	Agree	158	38.5	38.5	66.8
	Neutral	98	23.9	23.9	90.7
	Disagree	26	6.3	6.3	97.1
	Strongly Disagree	12	2.9	2.9	100.0
	Total	410	100.0	100.0	

41. I previously shopped online and paid for the product but did not receive the product.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	39	9.5	9.5	9.5
	Agree	80	19.5	19.5	29.0
	Neutral	82	20.0	20.0	49.0
	Disagree	151	36.8	36.8	85.9
	Strongly Disagree	58	14.1	14.1	100.0
	Total	410	100.0	100.0	

42. Online shopping is based on high trust.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	73	17.8	17.8	17.8
	Agree	115	28.0	28.0	45.9
	Neutral	137	33.4	33.4	79.3
	Disagree	64	15.6	15.6	94.9
	Strongly Disagree	21	5.1	5.1	100.0
	Total	410	100.0	100.0	

43. There is no confidence in saving personal data and not to use it for other purposes.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	44	10.7	10.7	10.7
	Agree	132	32.2	32.2	42.9
	Neutral	154	37.6	37.6	80.5
	Disagree	62	15.1	15.1	95.6
	Strongly Disagree	18	4.4	4.4	100.0
	Total	410	100.0	100.0	

44. I have high knowledge about computer and internet use.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	91	22.2	22.2	22.2

	Agree	148	36.1	36.1	58.3
	Neutral	111	27.1	27.1	85.4
	Disagree	42	10.2	10.2	95.6
	Strongly Disagree	18	4.4	4.4	100.0
	Total	410	100.0	100.0	

45. There should be a feature on all social media sites dedicated to e-commerce in the future.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	85	20.7	20.7	20.7
	Agree	175	42.7	42.7	63.4
	Disagree	36	8.8	8.8	72.2
	Strongly Disagree	114	27.8	27.8	100.0
	Total	410	100.0	100.0	

46. There should be newer and faster ways to ship and deliver products and services that are purchased online in Iraq in the future.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	121	29.5	29.5	29.5
	Agree	159	38.8	38.8	68.3
	Neutral	90	22.0	22.0	90.2
	Disagree	23	5.6	5.6	95.9

	Strongly Disagree	17	4.1	4.1	100.0
	Total	410	100.0	100.0	

47. E-commerce companies should provide more branches in Iraq in the future.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	134	32.7	32.7	32.7
	Agree	161	39.3	39.3	72.0
	Neutral	63	15.4	15.4	87.3
	Disagree	32	7.8	7.8	95.1
	Strongly Disagree	20	4.9	4.9	100.0
	Total	410	100.0	100.0	

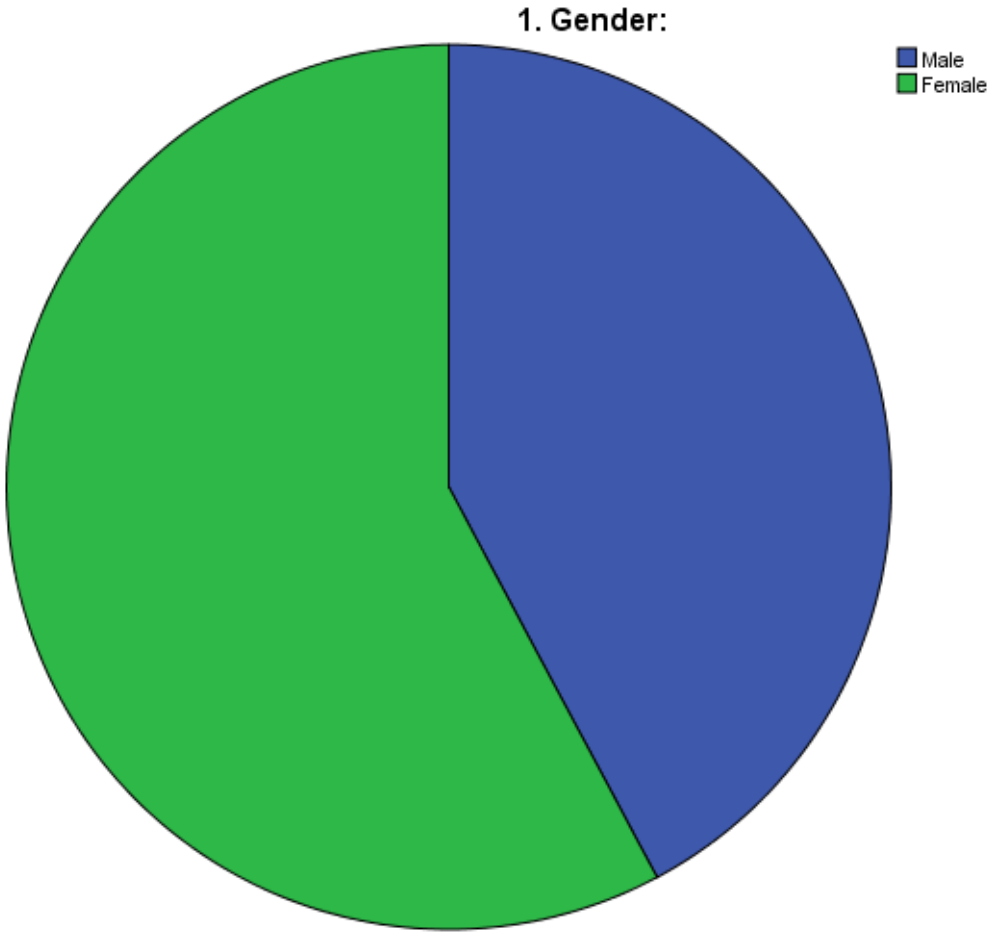
48. Newer and simpler financial methods must be provided to pay the amount of products that are bought online in Iraq in the future.

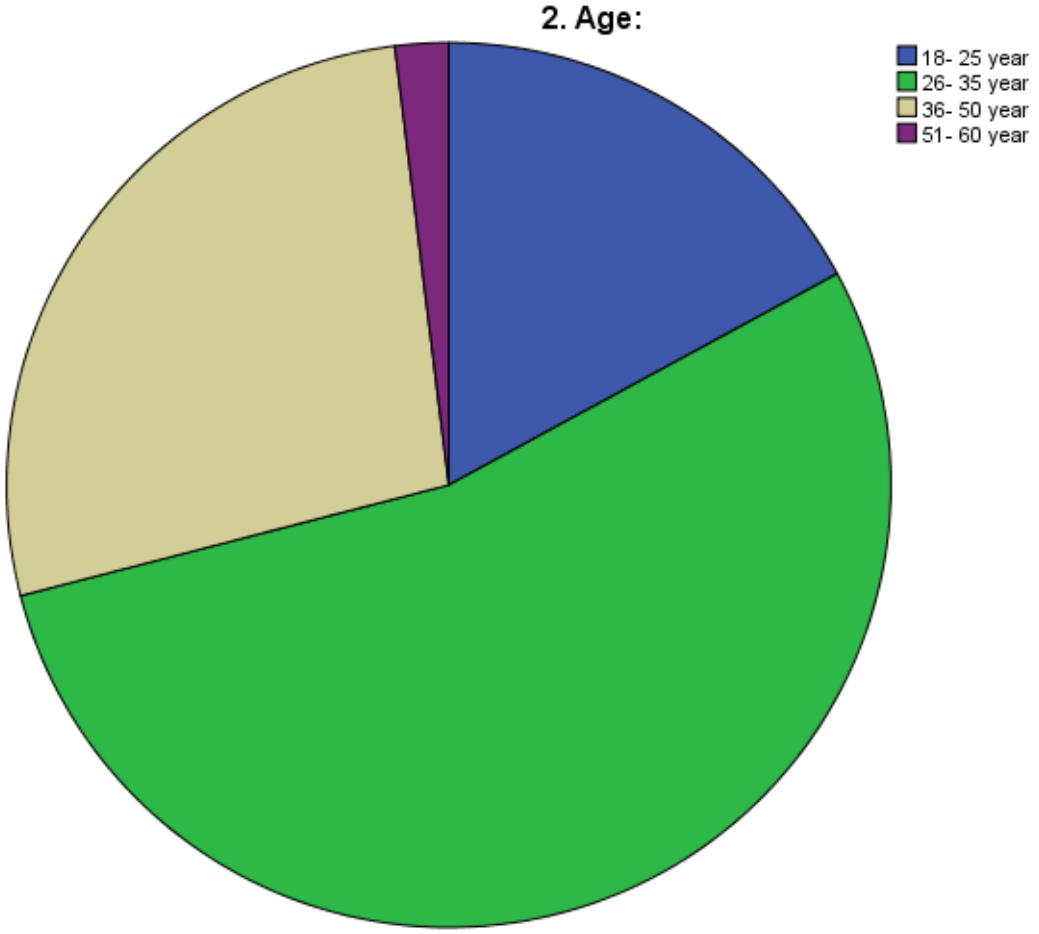
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	115	28.0	28.0	28.0
	Agree	166	40.5	40.5	68.5
	Neutral	90	22.0	22.0	90.5
	Disagree	22	5.4	5.4	95.9
	Strongly Disagree	17	4.1	4.1	100.0
	Total	410	100.0	100.0	

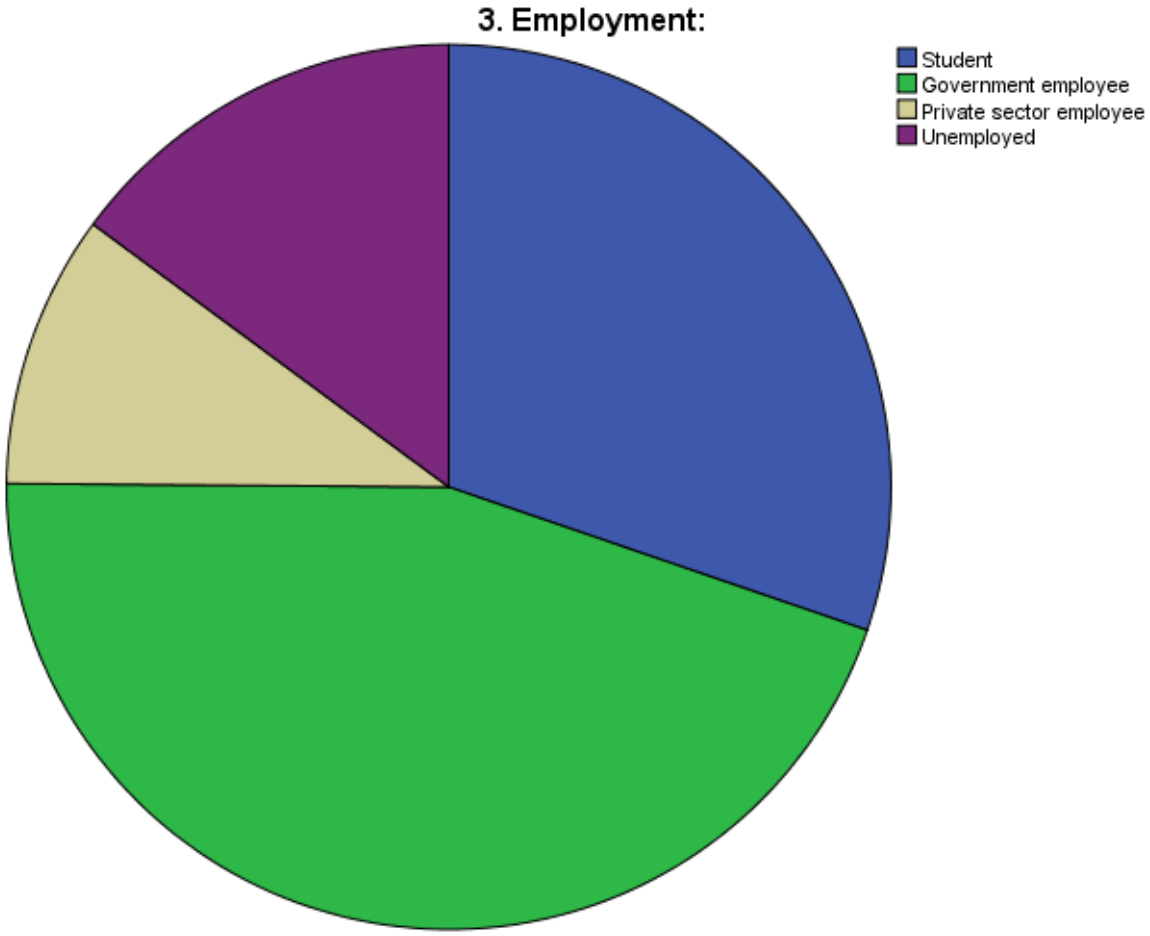
49. E-commerce laws must be developed to ensure the right of the producer and consumer in Iraq in the future.

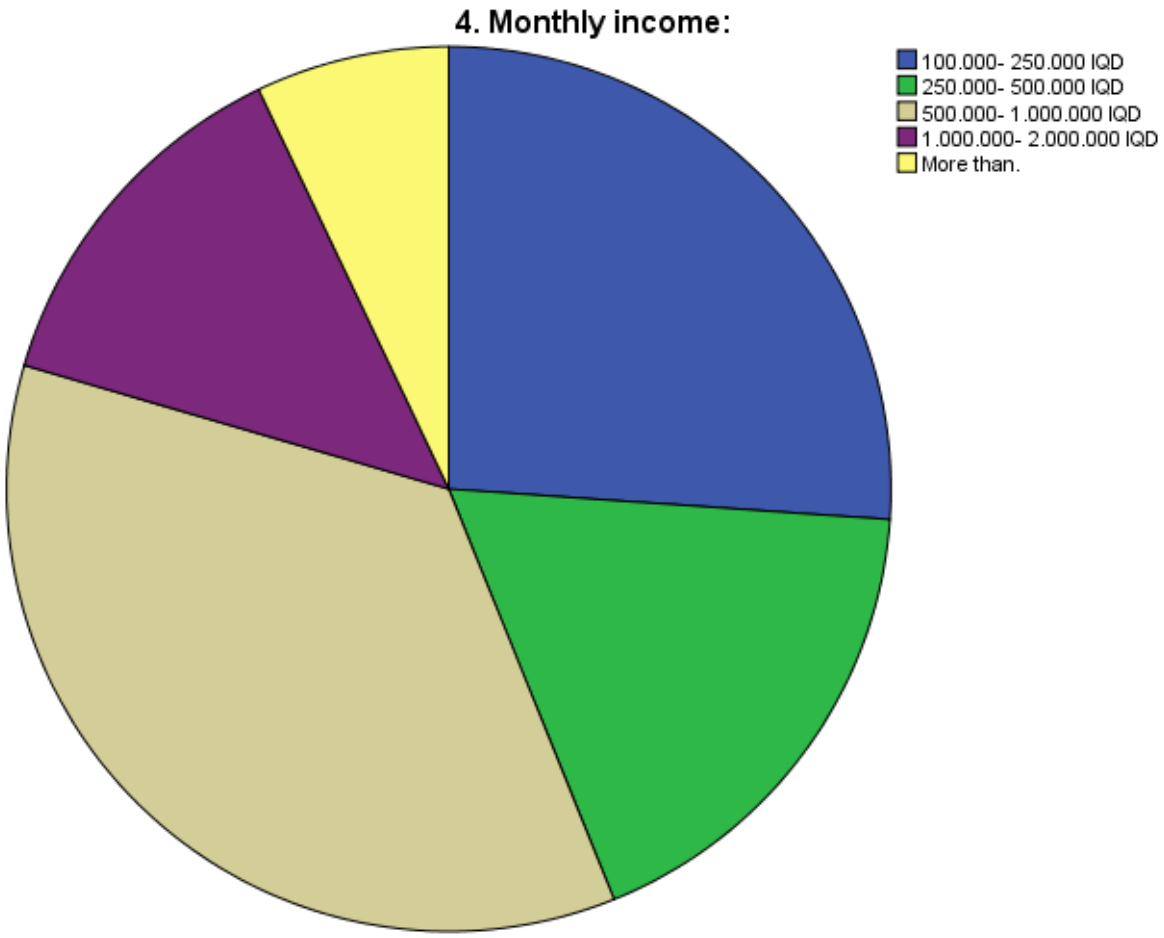
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	153	37.3	37.3	37.3
	Agree	151	36.8	36.8	74.1
	Neutral	68	16.6	16.6	90.7
	Disagree	23	5.6	5.6	96.3
	Strongly Disagree	15	3.7	3.7	100.0
	Total	410	100.0	100.0	

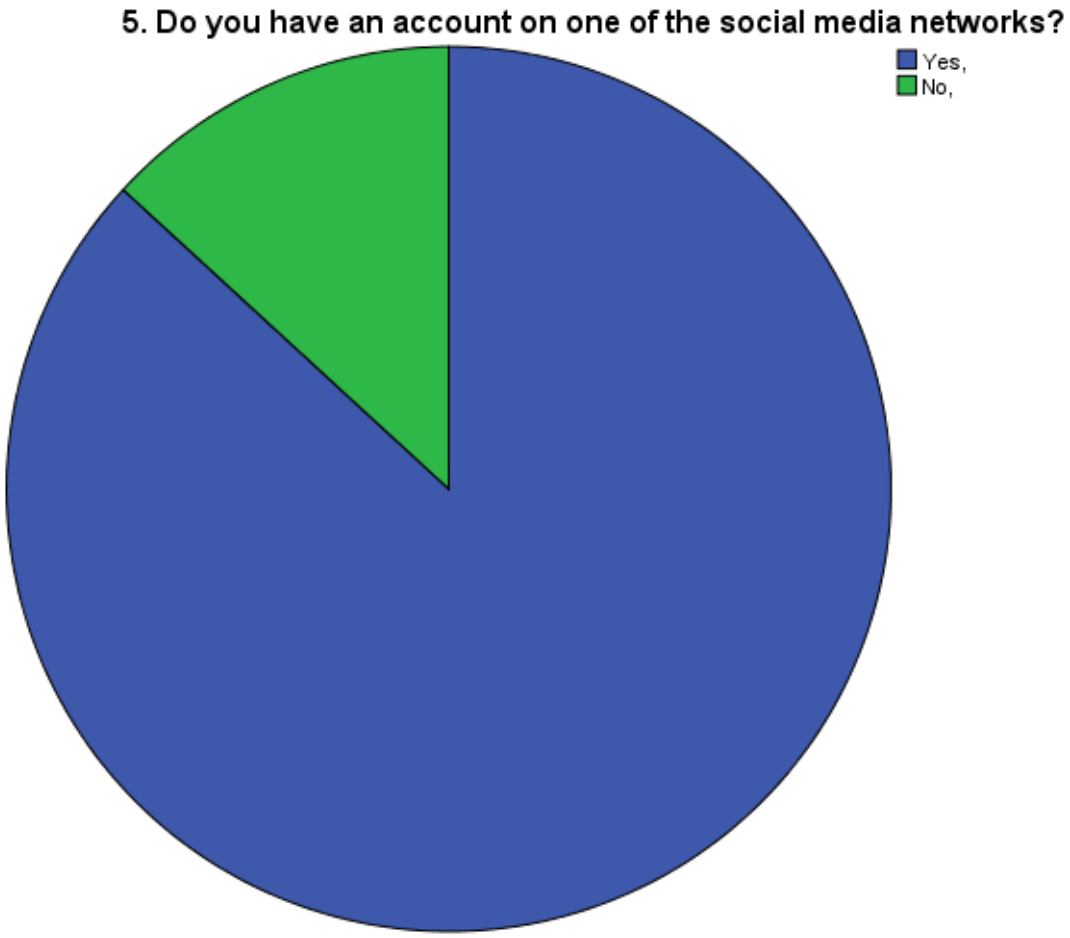
Pie Chart

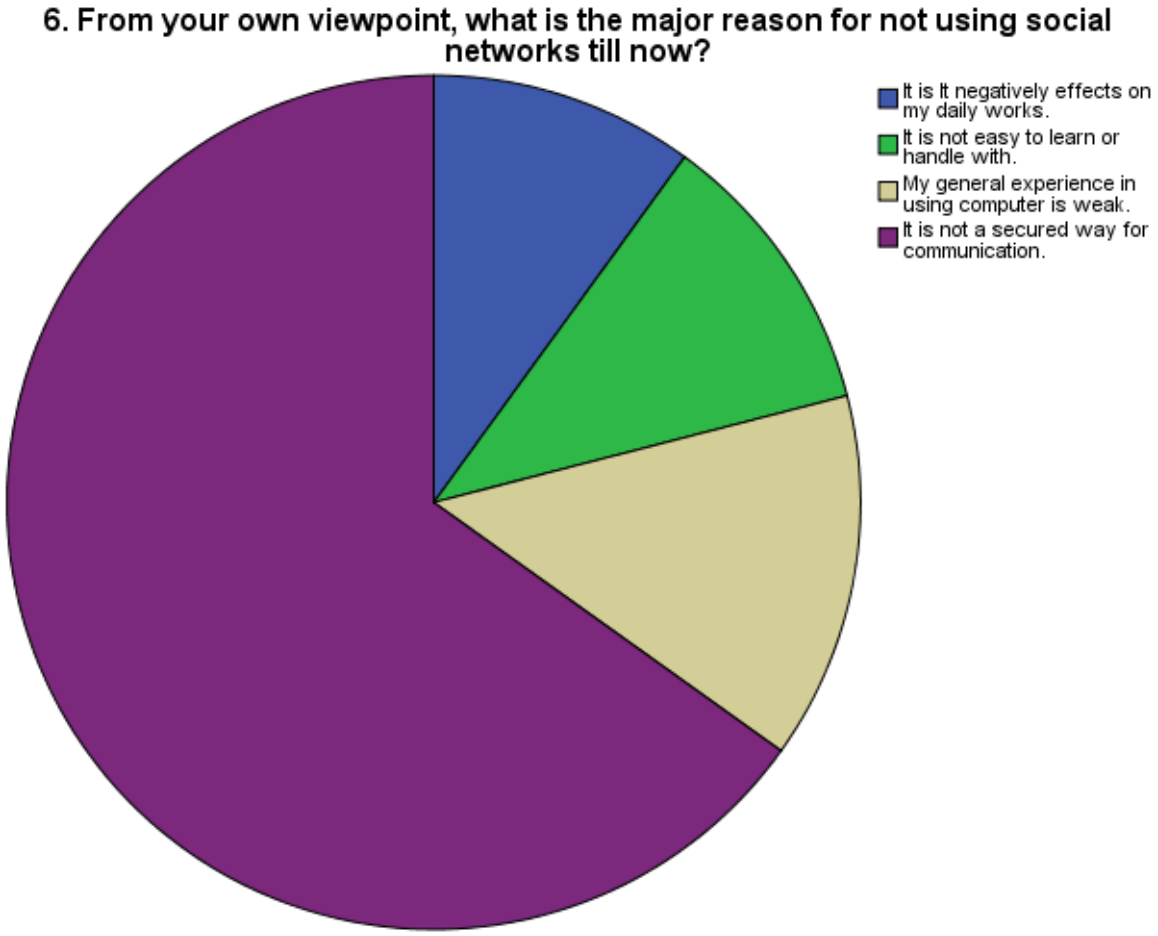

1. Gender:
Male
Female

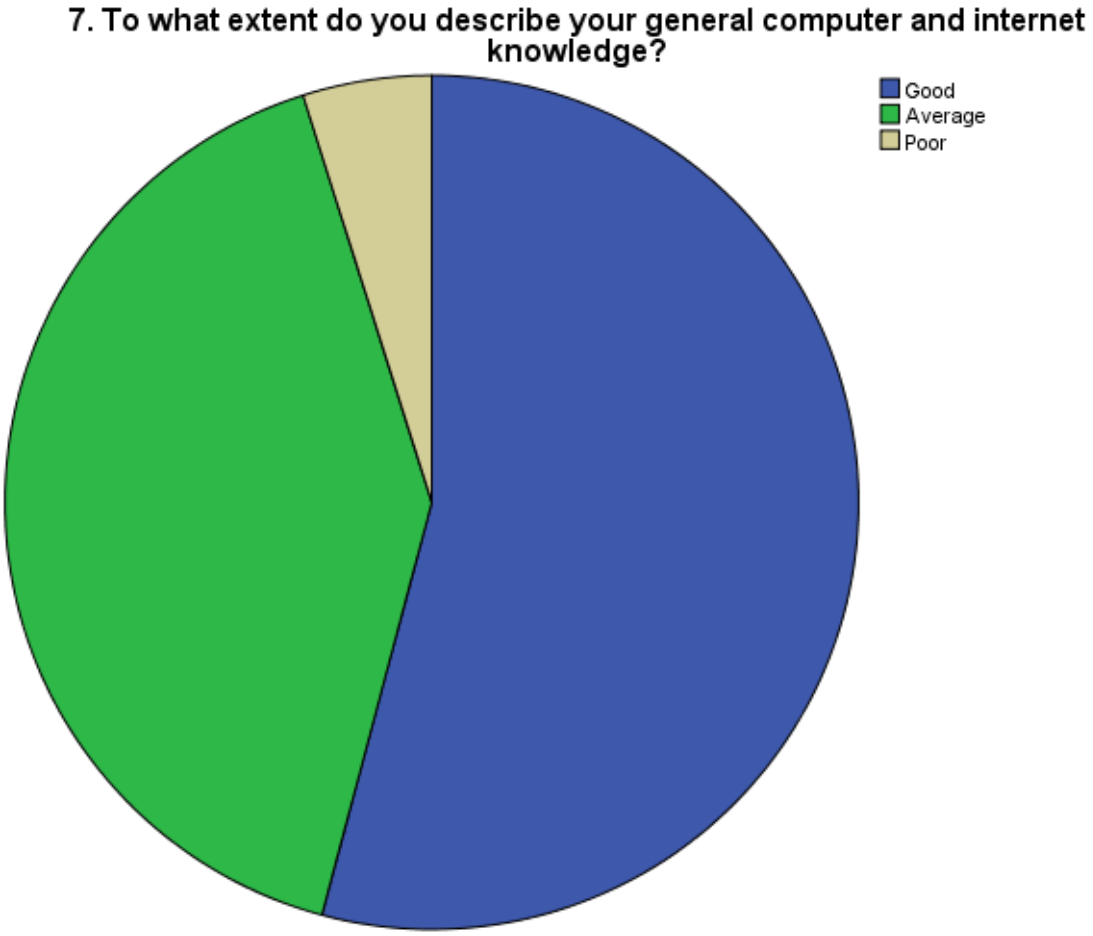

2. Age:
18- 25 year
26- 35 year
36- 50 year
51- 60 year

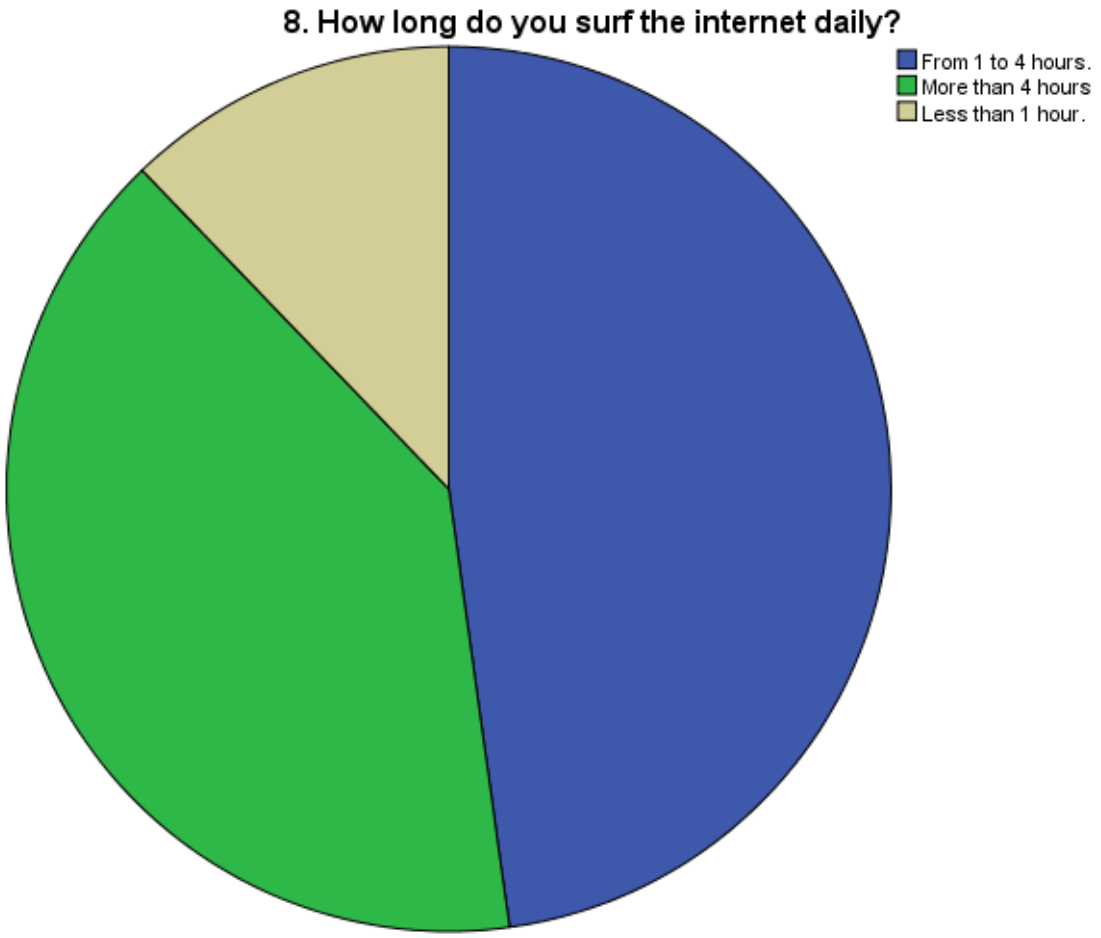

3. Employment:
Student
Government employee
Private sector employee
Unemployed

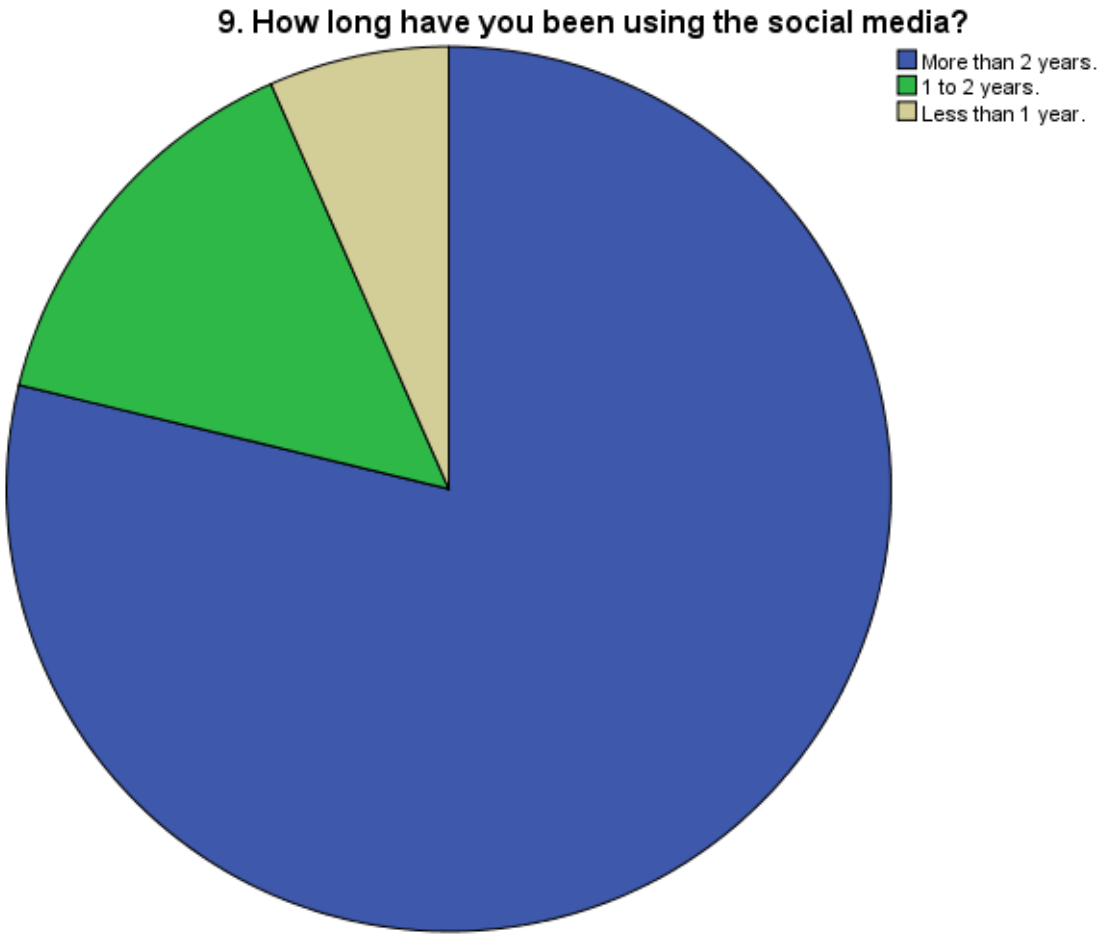

4. Monthly income:
100.000- 250.000 IQD
250.000- 500.000 IQD
500.000- 1.000.000 IQD
1.000.000- 2.000.000 IQD
More than.


5. Do you have an account on one of the social media networks?
Yes,
No,

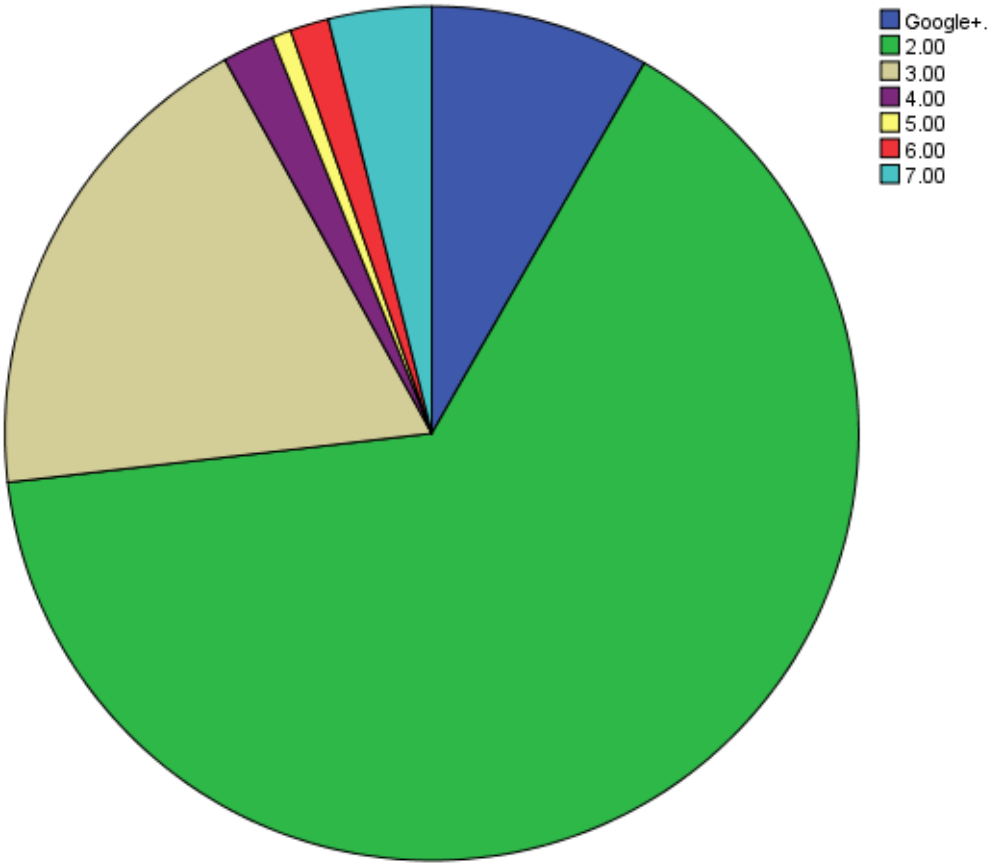

6. From your own viewpoint, what is the major reason for not using social networks till now?
It is It negatively effects on my daily works.
It is not easy to learn or handle with.
My general experience in using computer is weak.
It is not a secured way for communication.

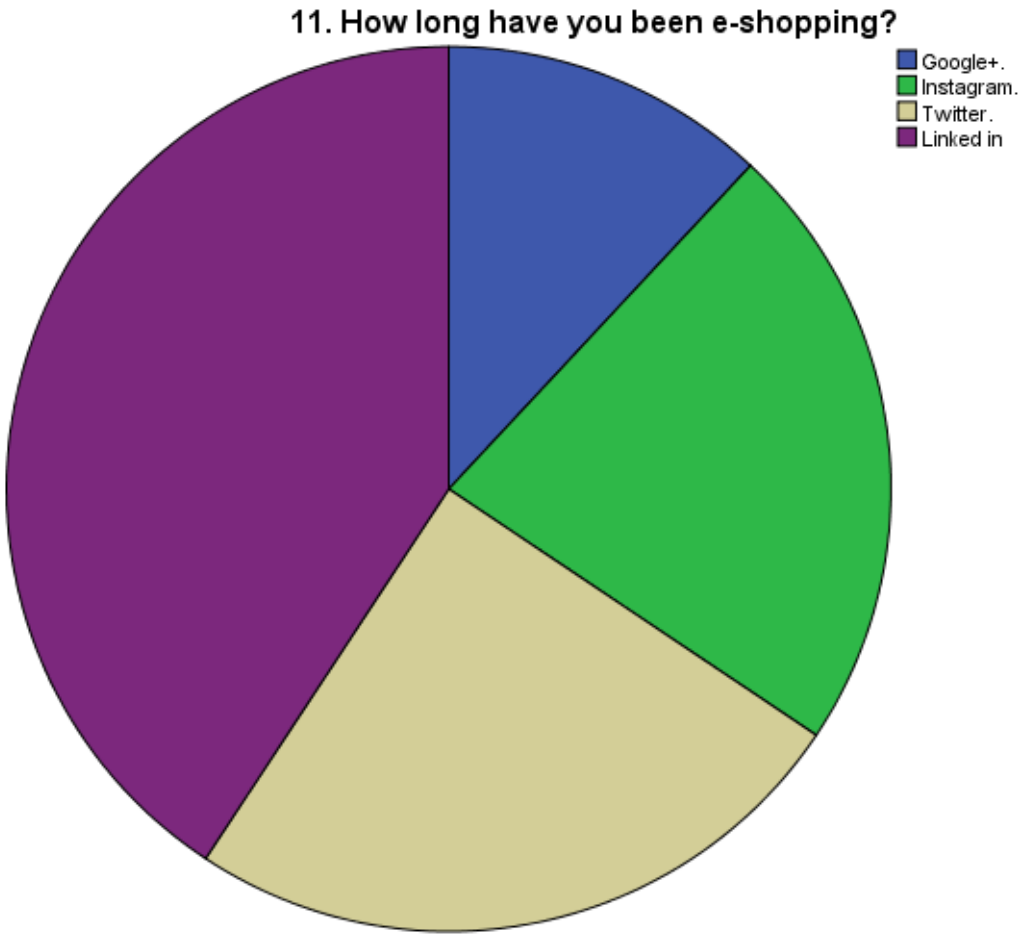

7. To what extent do you describe your general computer and internet knowledge?
Good
Average
Poor

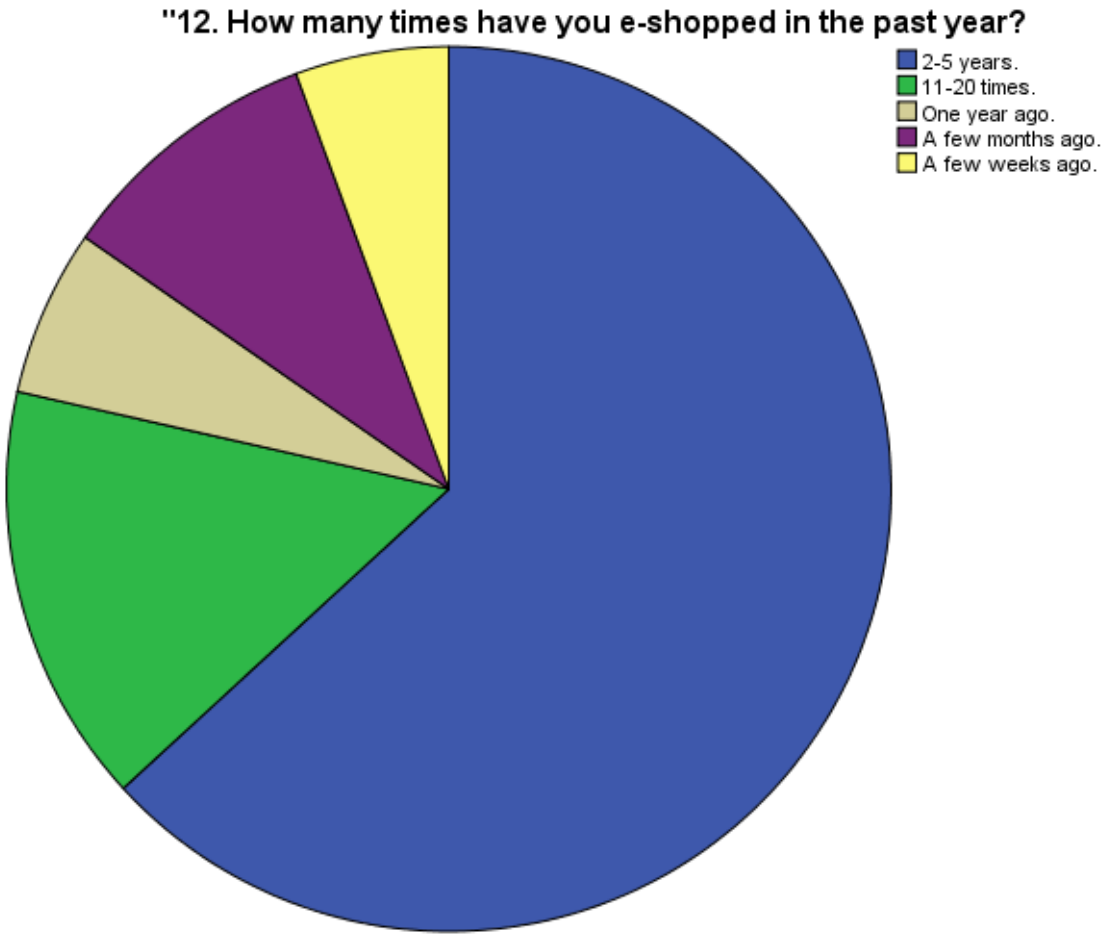

8. How long do you surf the internet daily?
From 1 to 4 hours.
More than 4 hours
Less than 1 hour.

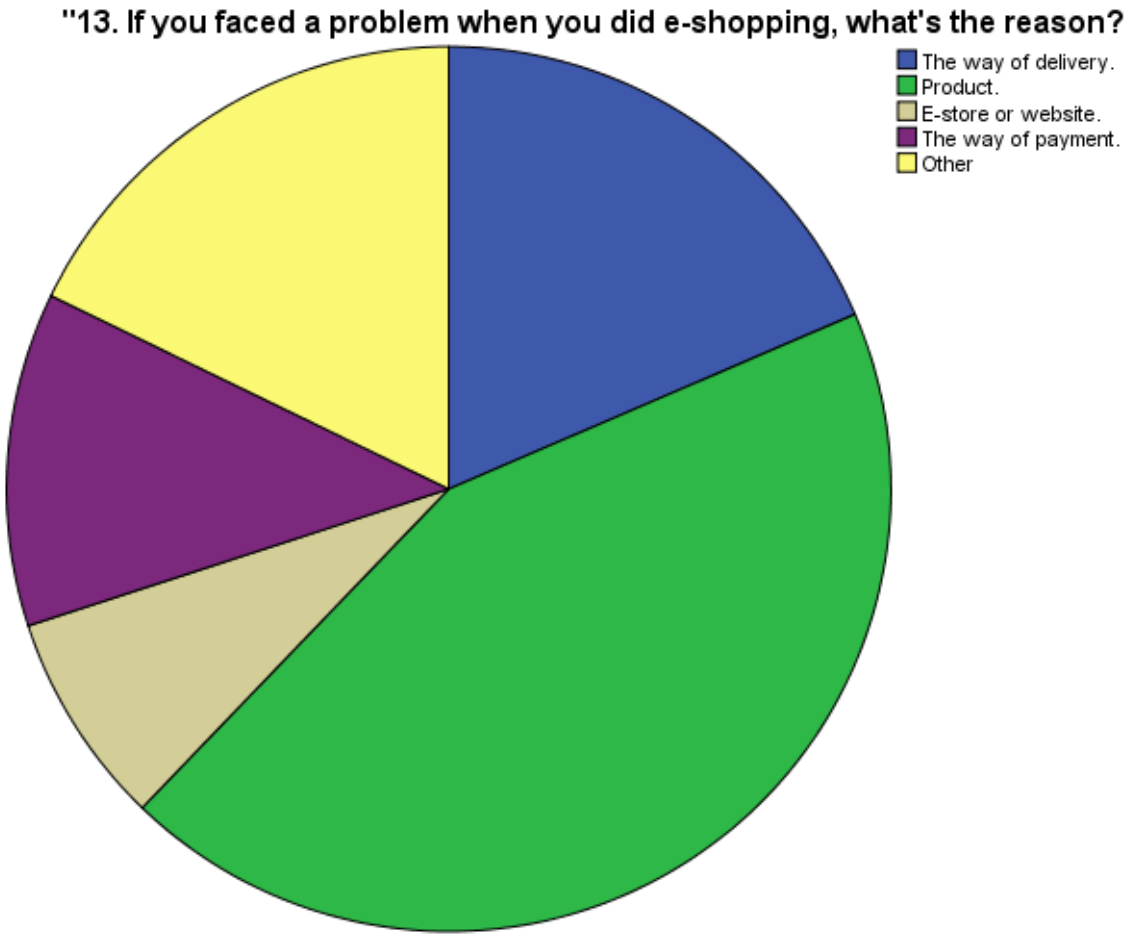

9. How long have you been using the social media?
More than 2 years.
1 to 2 years.
Less than 1 year.

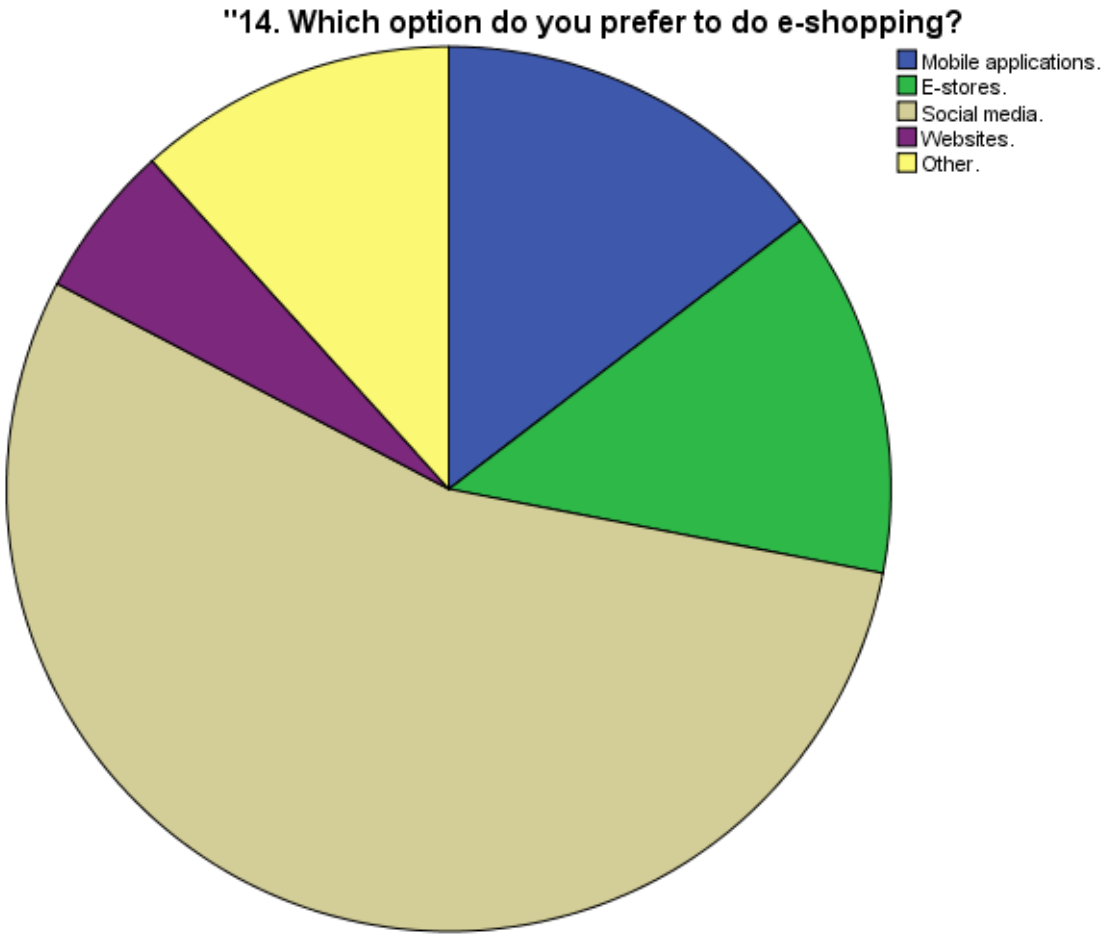
10. What is your preferable and mostly used social network (please choose one only)?

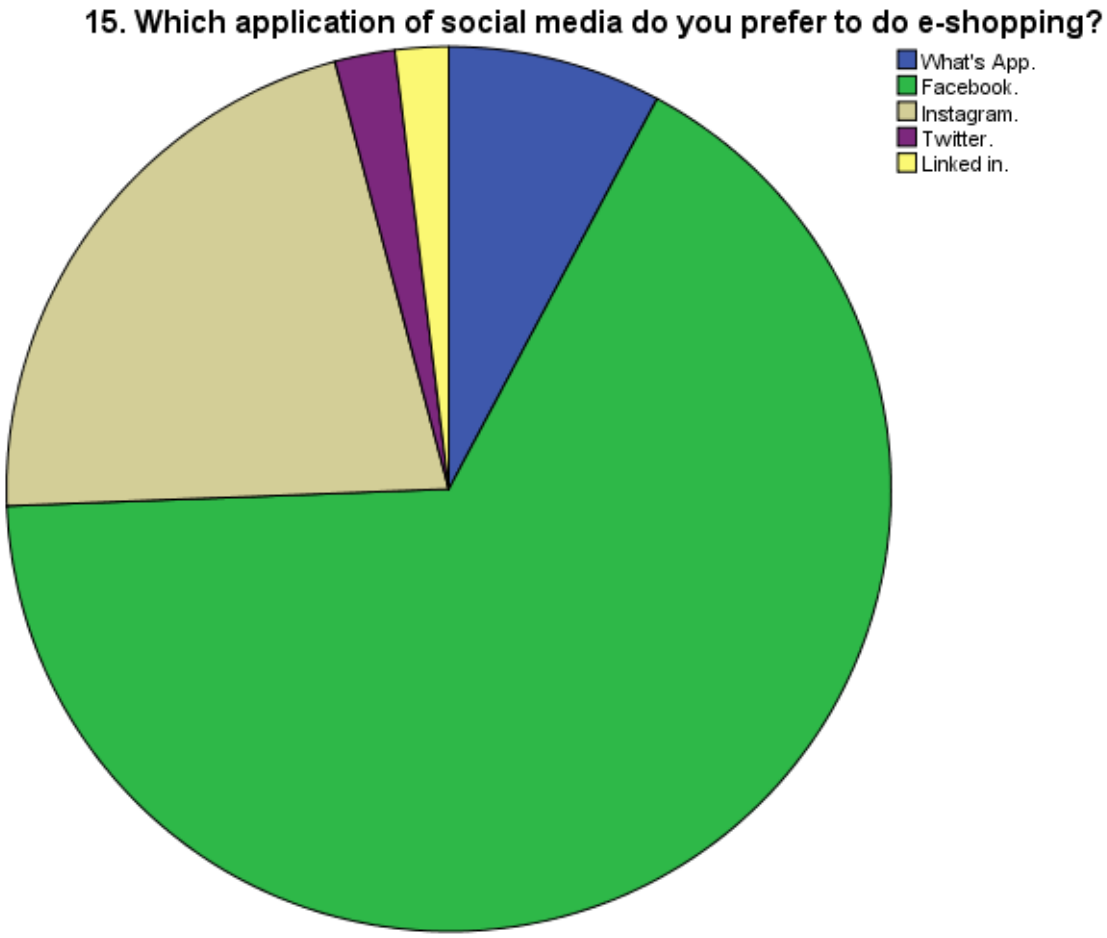


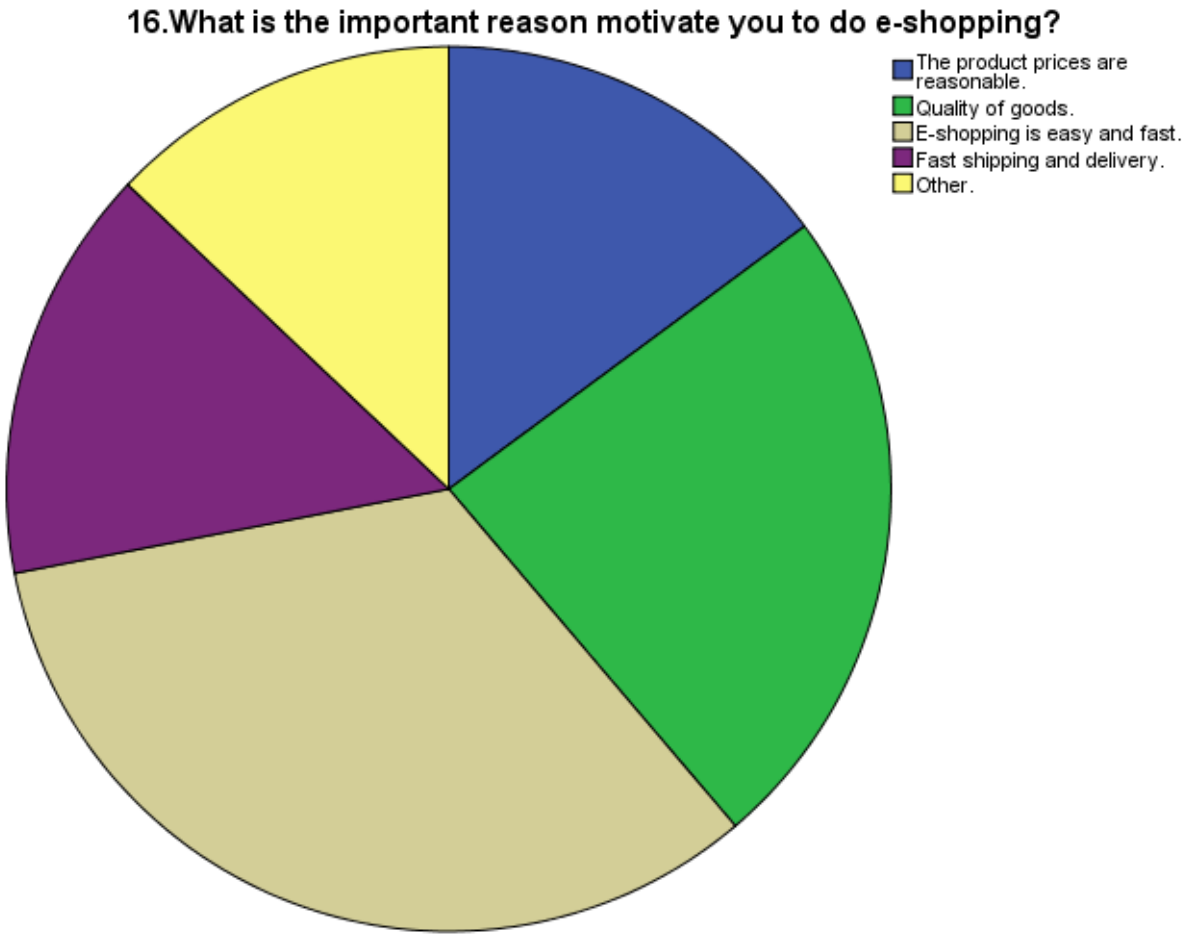

11. How long have you been e-shopping?
Google+.
Instagram.
Twitter.
Linked in

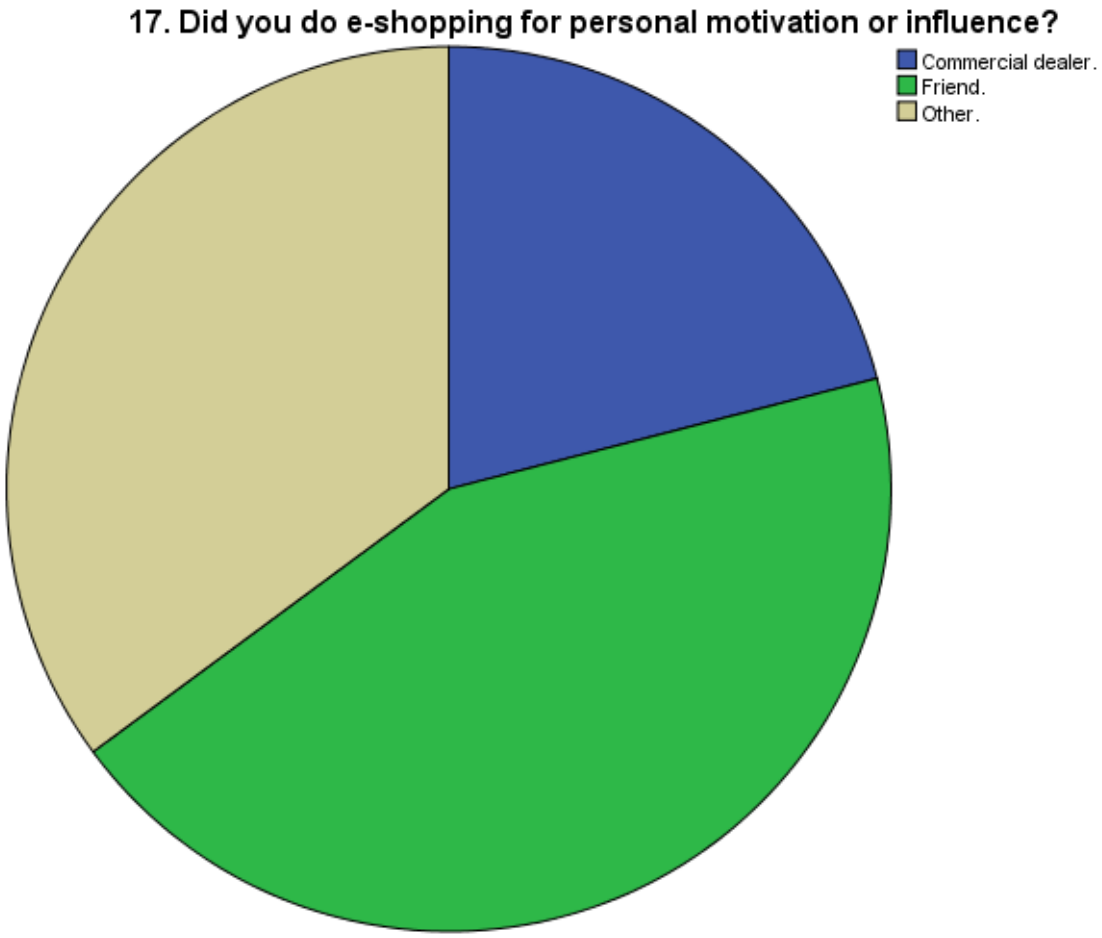

"12. How many times have you e-shopped in the past year?
2-5 years.
11-20 times.
One year ago.
A few months ago.
A few weeks ago.

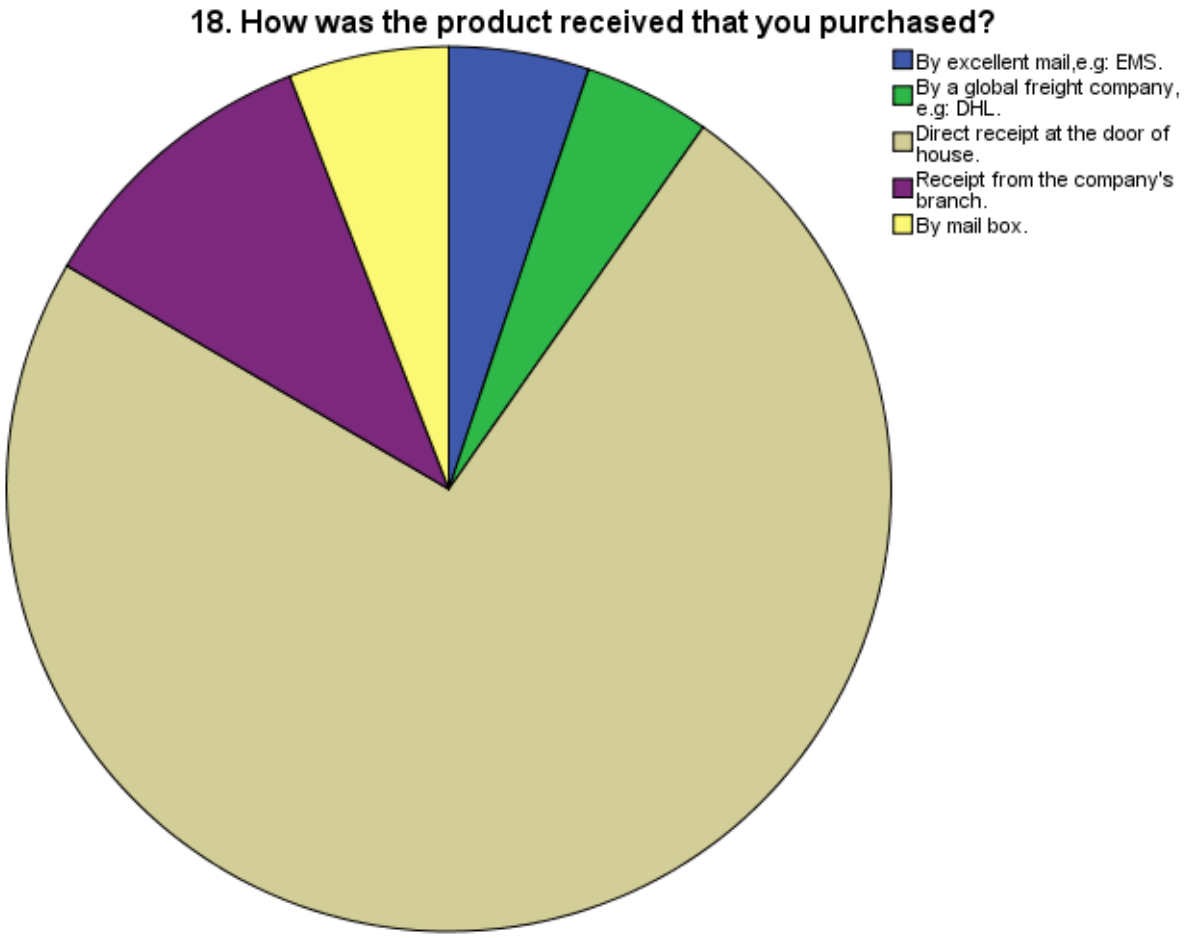

"13. If you faced a problem when you did e-shopping, what's the reason?
The way of delivery.
Product.
E-store or website.
The way of payment.
Other


"14. Which option do you prefer to do e-shopping?
Mobile applications.
E-stores.
Social media.
Websites.
Other.

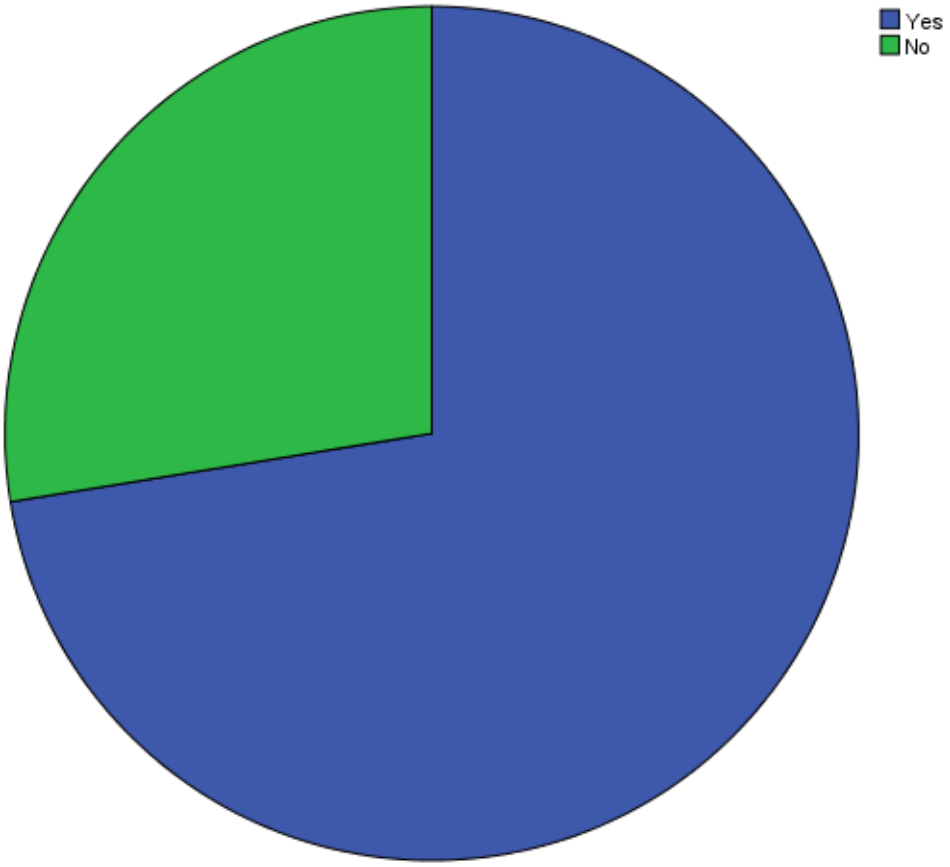

15. Which application of social media do you prefer to do e-shopping?
What's App.
Facebook.
Instagram.
Twitter.
Linked in.

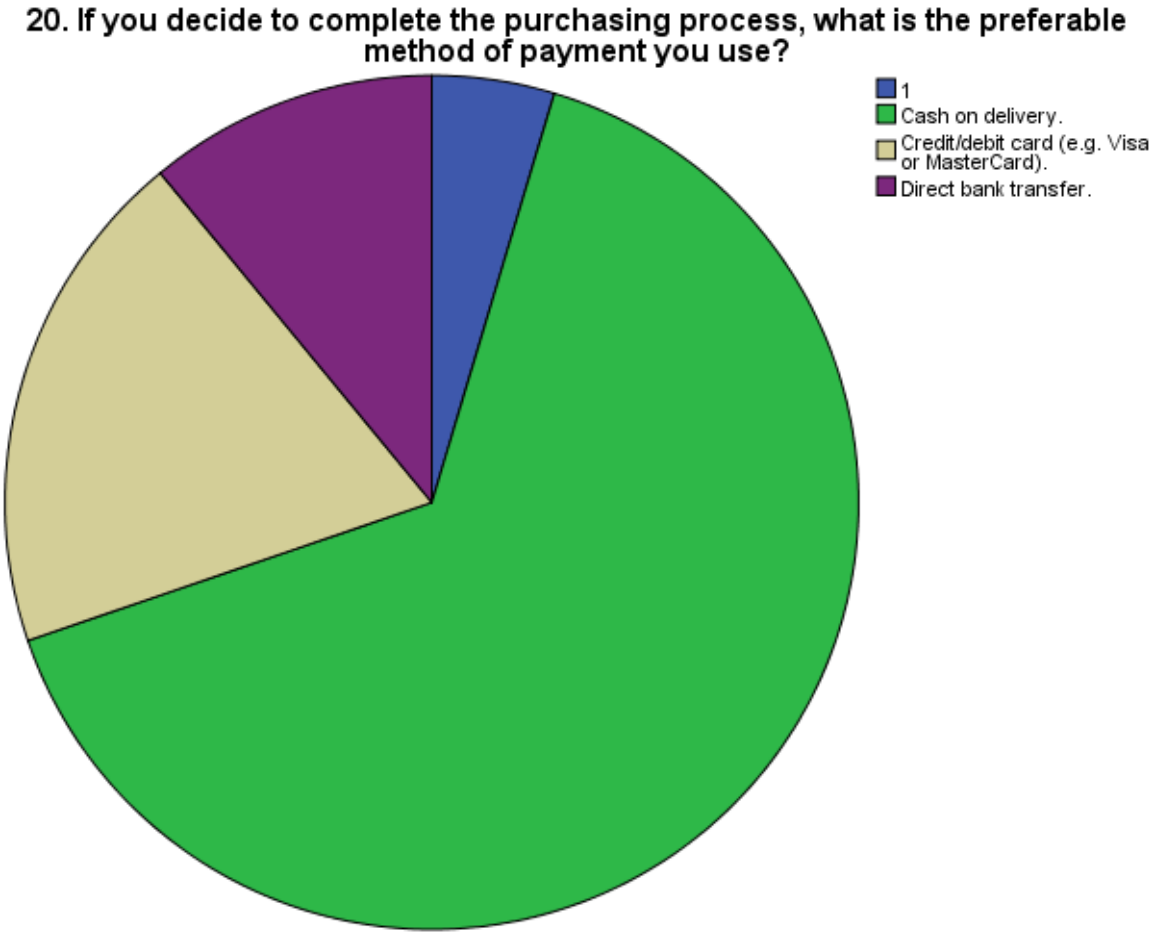

16.What is the important reason motivate you to do e-shopping?
The product prices are reasonable.
Quality of goods.
E-shopping is easy and fast.
Fast shipping and delivery.
Other.


17. Did you do e-shopping for personal motivation or influence?
Commercial dealer.
Friend.
Other.

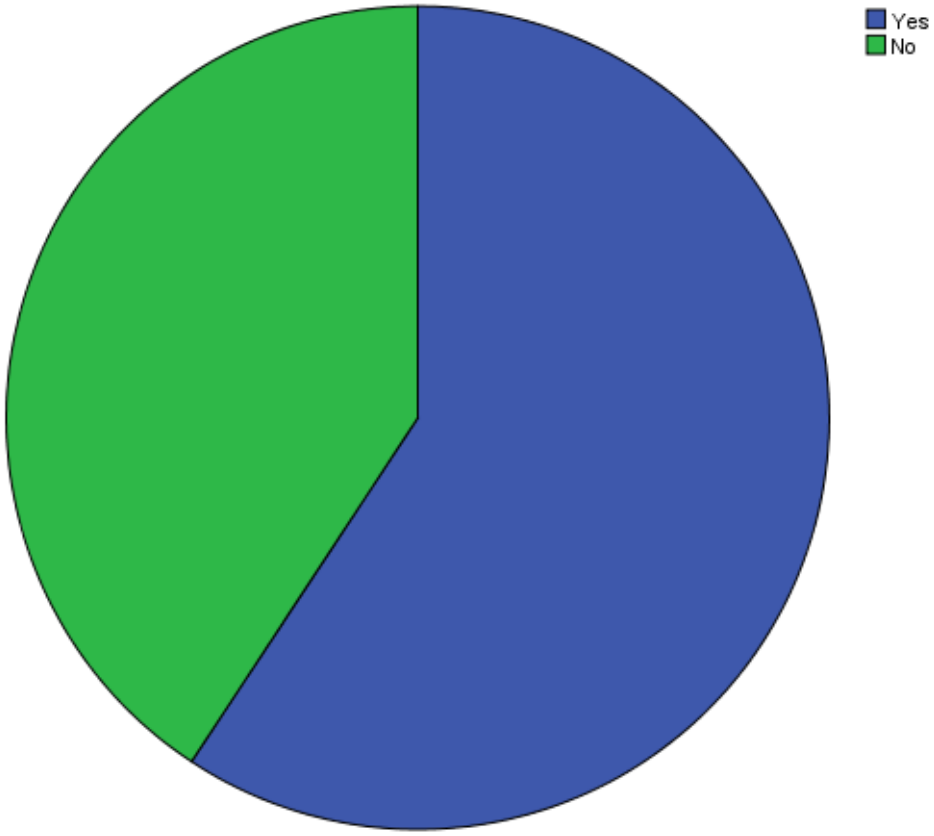

18. How was the product received that you purchased?
By excellent mail,e.g: EMS.
By a global freight company, e.g: DHL.
Direct receipt at the door of house.
Receipt from the company's branch.
By mail box.

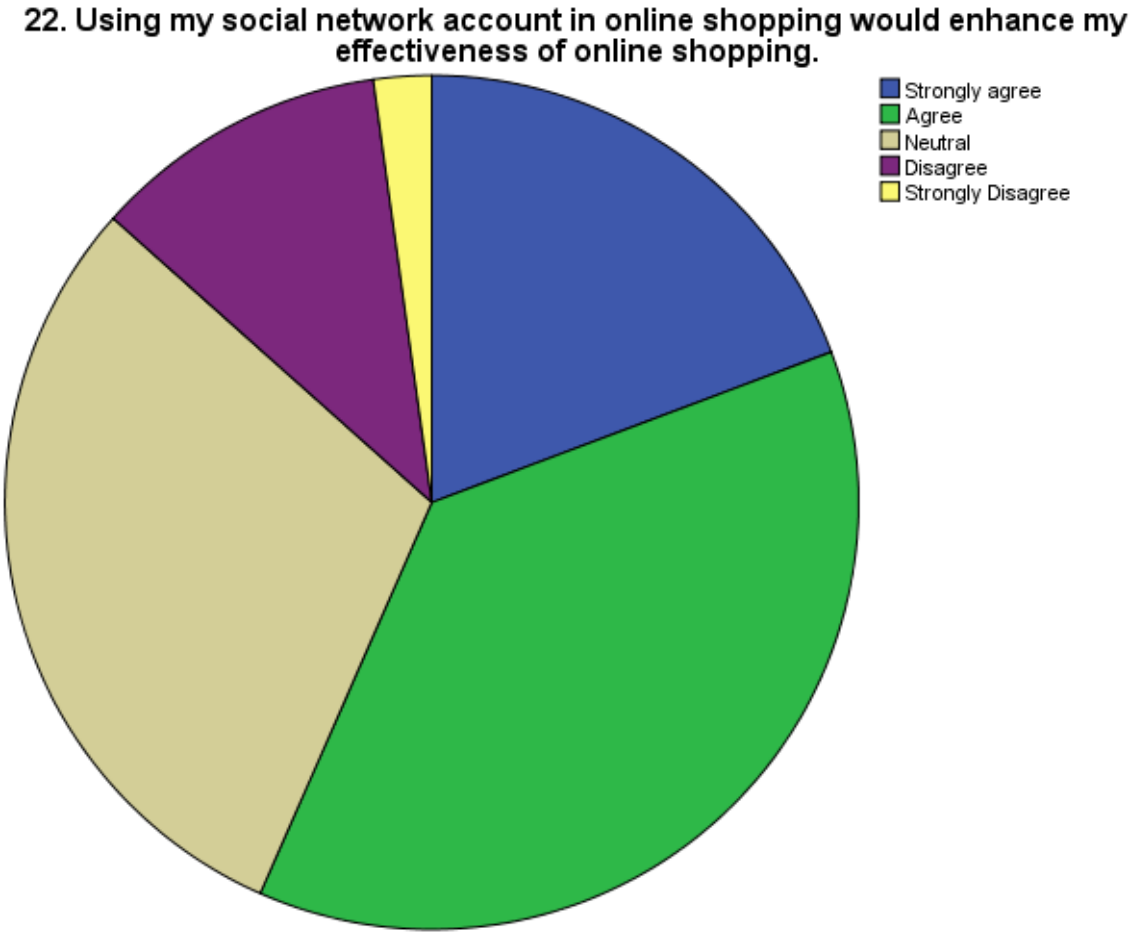
19. Did you ever use your account on social networks in a purchasing operation on one of the social online shopping sites?

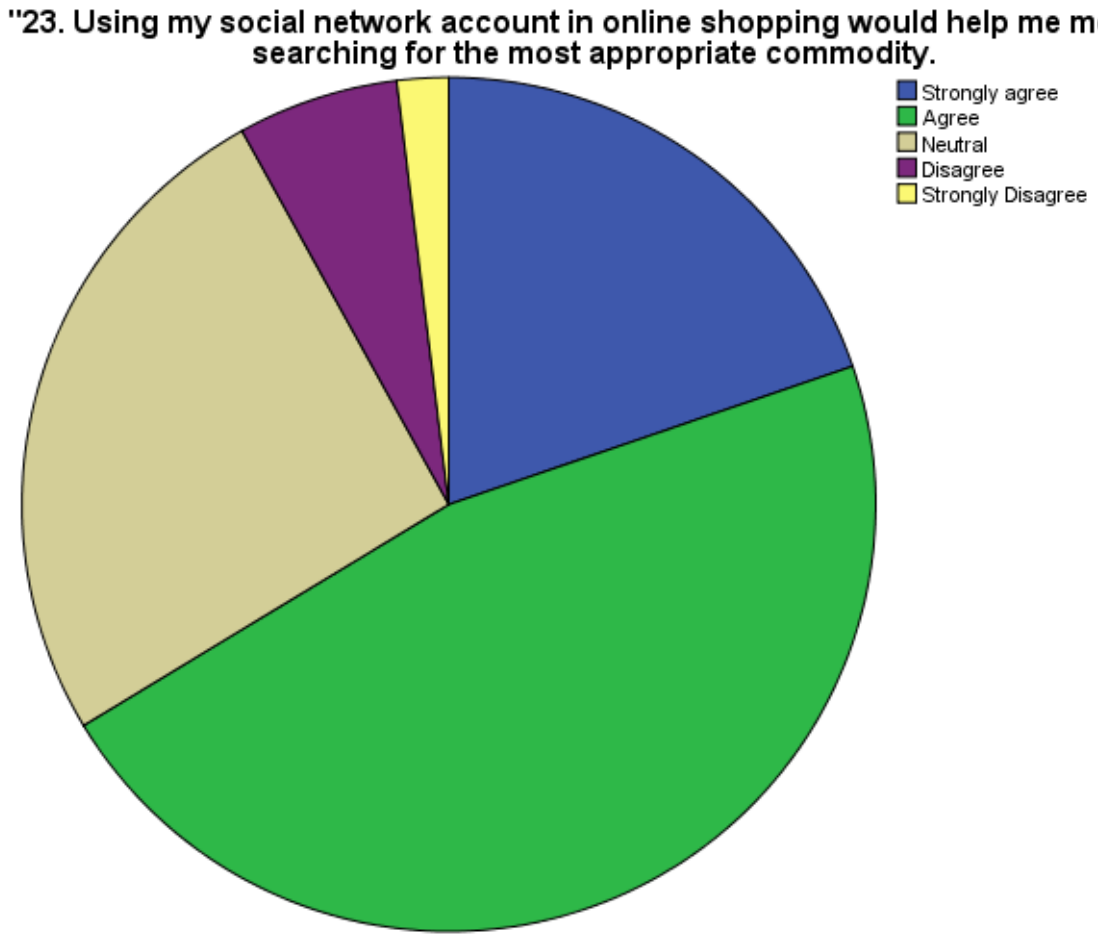



20. If you decide to complete the purchasing process, what is the preferable method of payment you use?
1
Cash on delivery.
Credit/debit card (e.g. Visa or MasterCard).
Direct bank transfer.

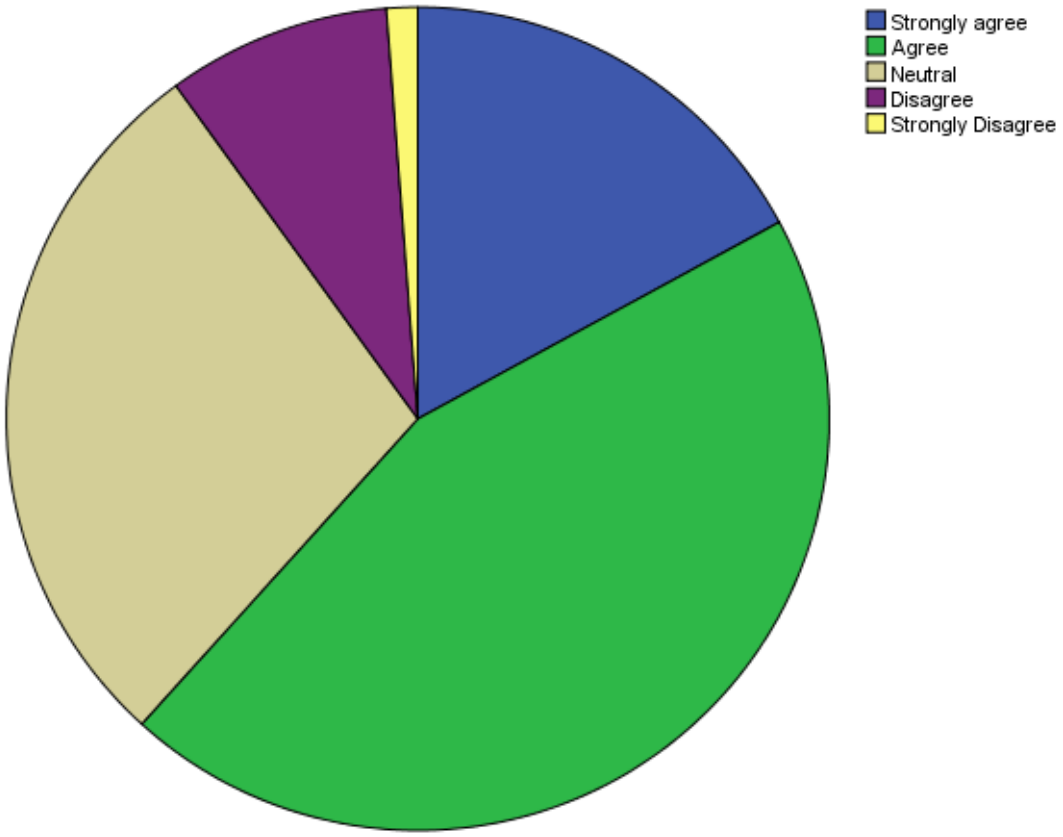
21. Did you ever use your account on social networks to benefit from social media features (commenting, liking, sharing, or others) in the online shopping activities for you or one of your friends on the network?

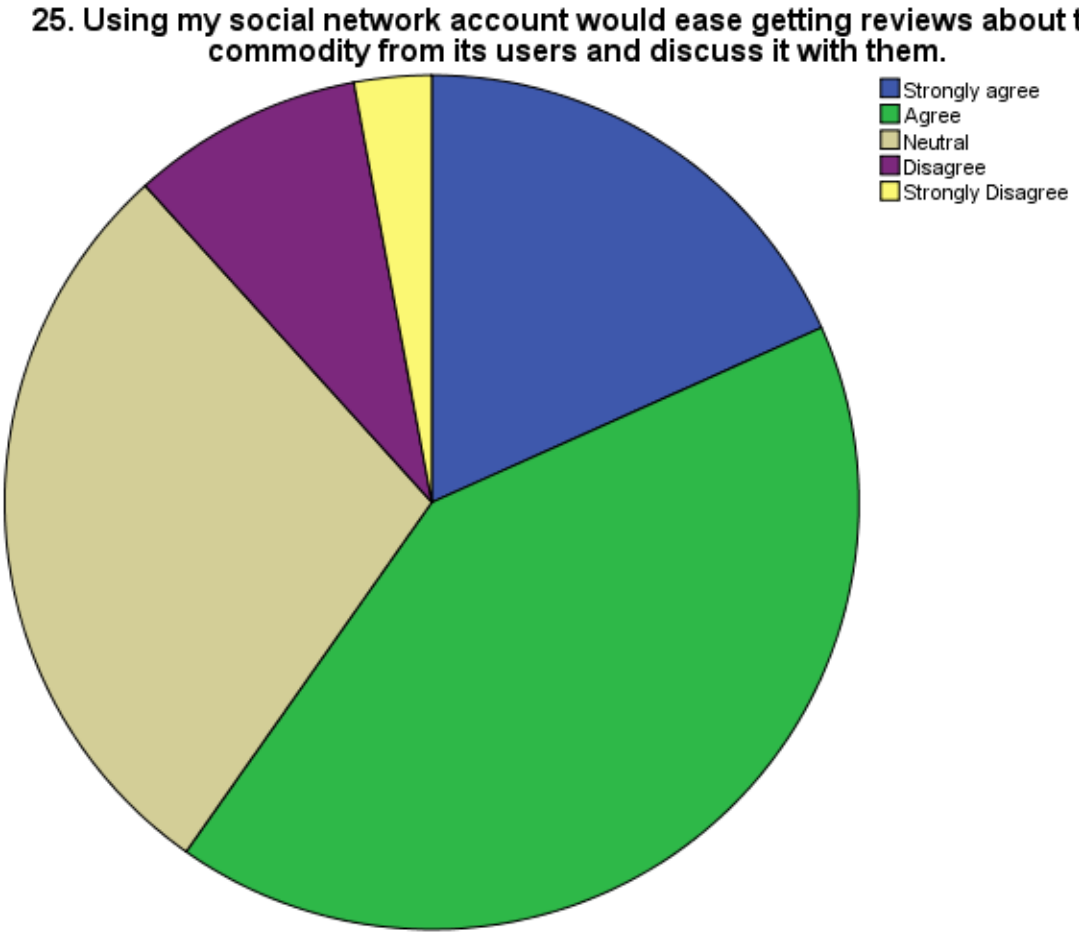


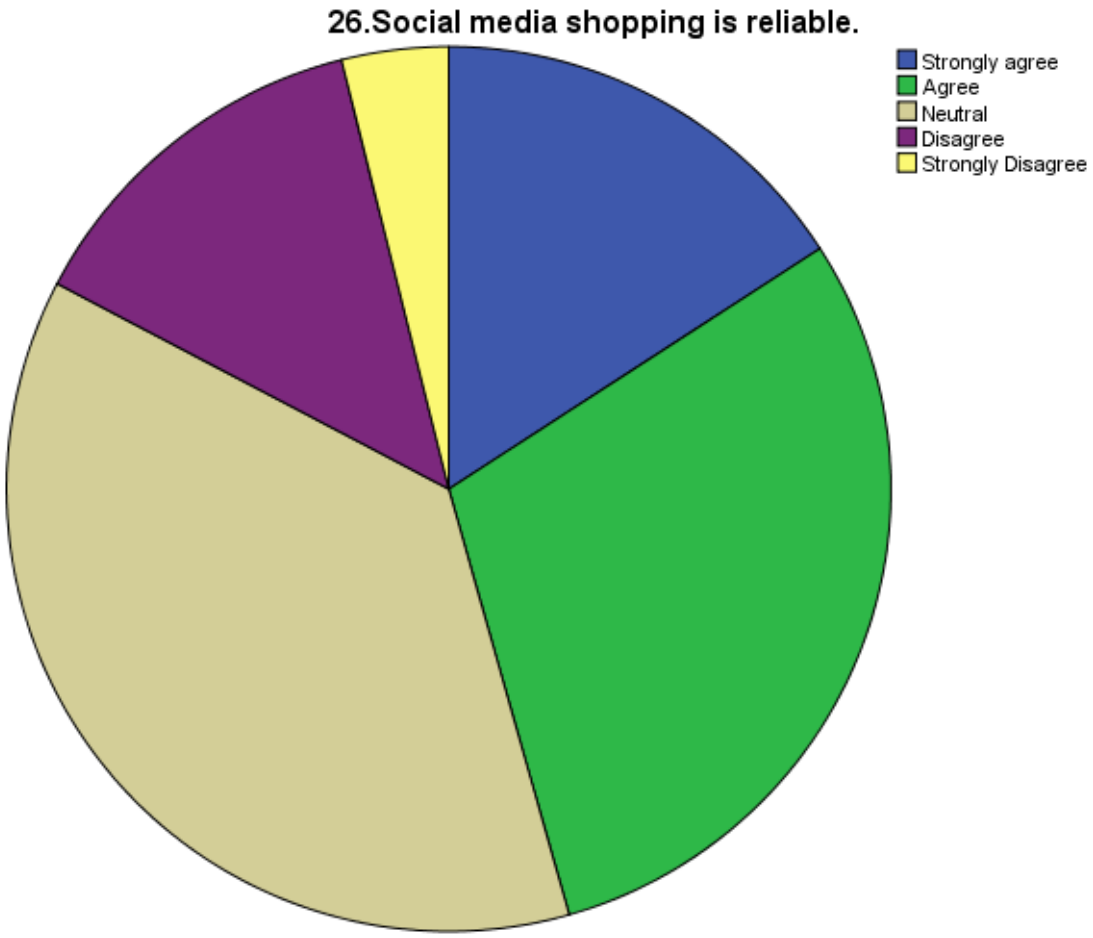

22. Using my social network account in online shopping would enhance my effectiveness of online shopping.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree


"23. Using my social network account in online shopping would help me more in searching for the most appropriate commodity.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

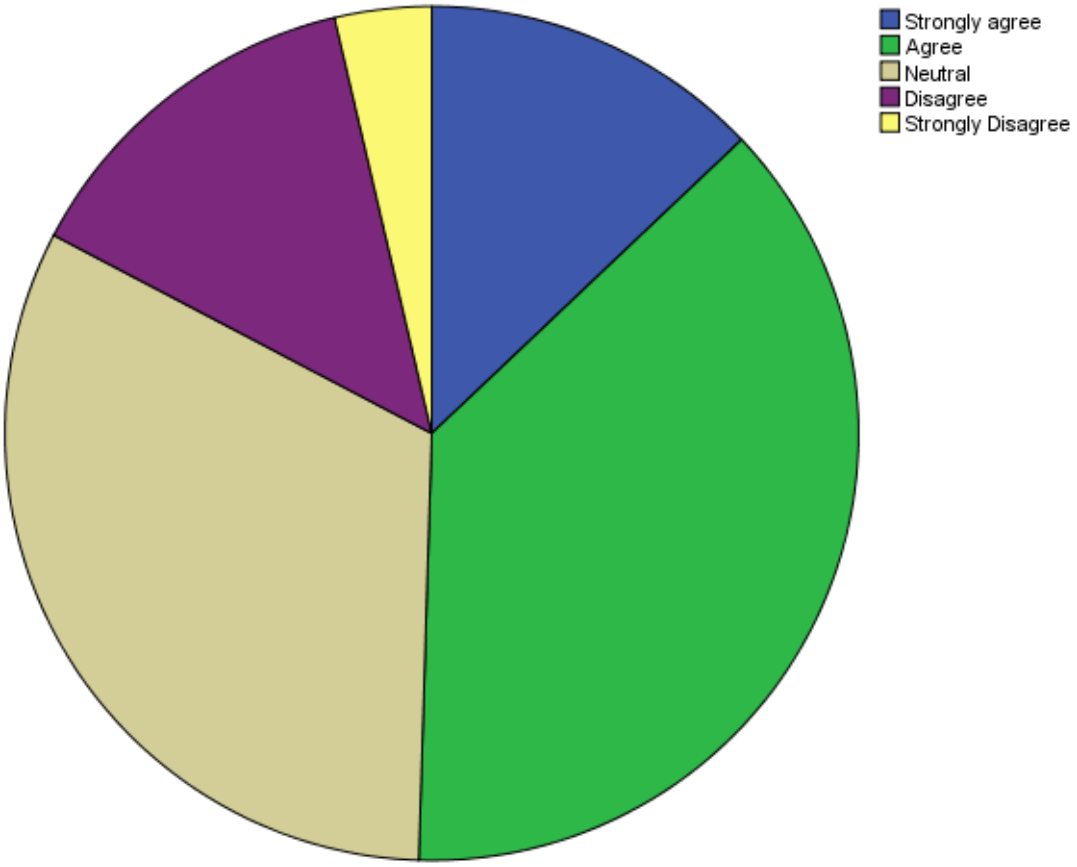
24.Using my social network account would help me in discussing opinions and requirements about the commodity with the producers, suppliers, and distributors more effectively.

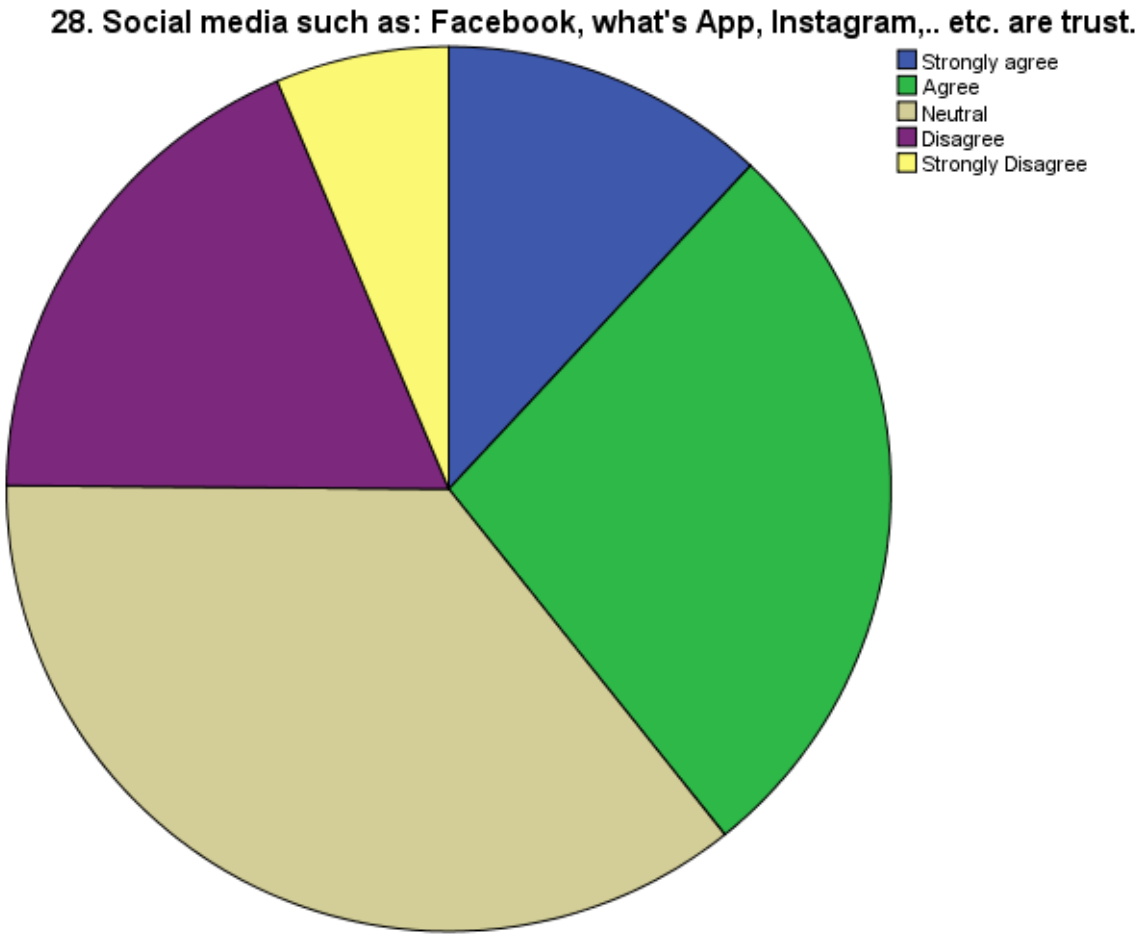


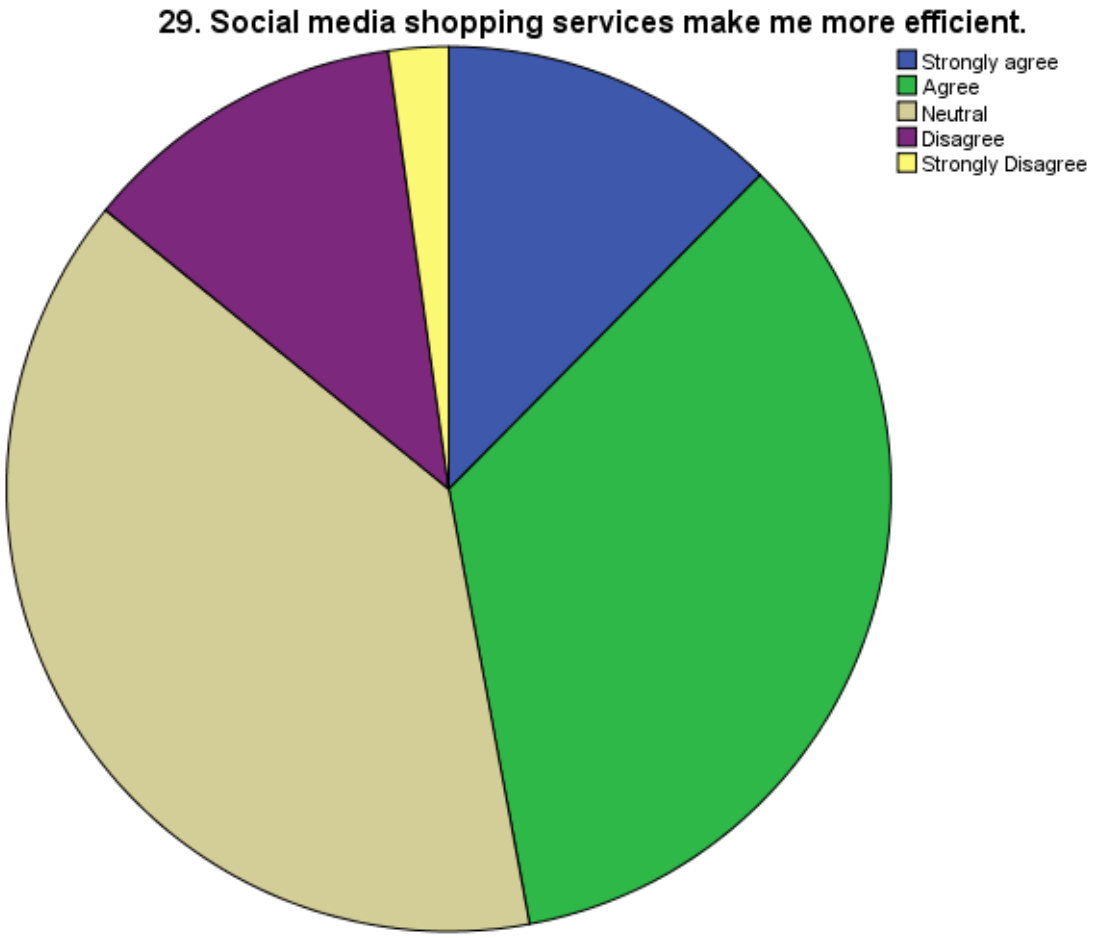

25. Using my social network account would ease getting reviews about the commodity from its users and discuss it with them.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

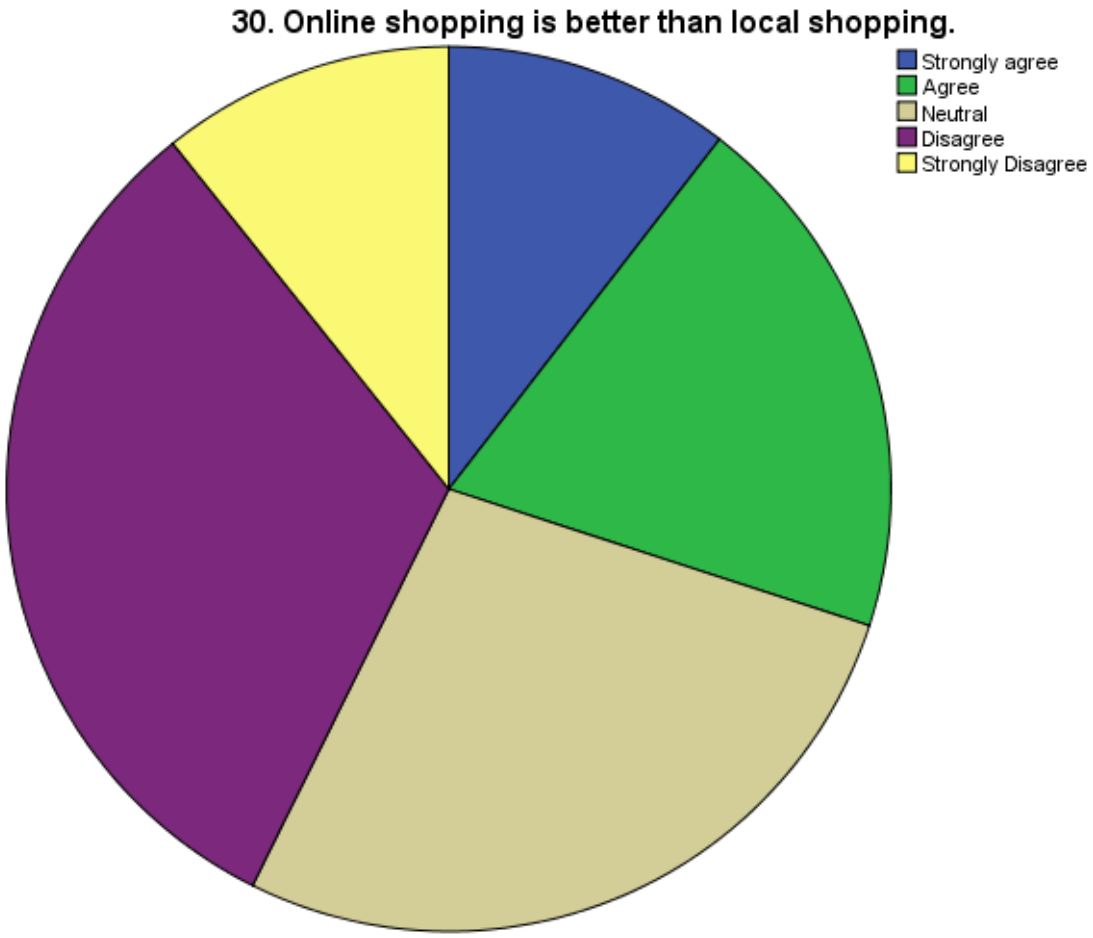

26.Social media shopping is reliable.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

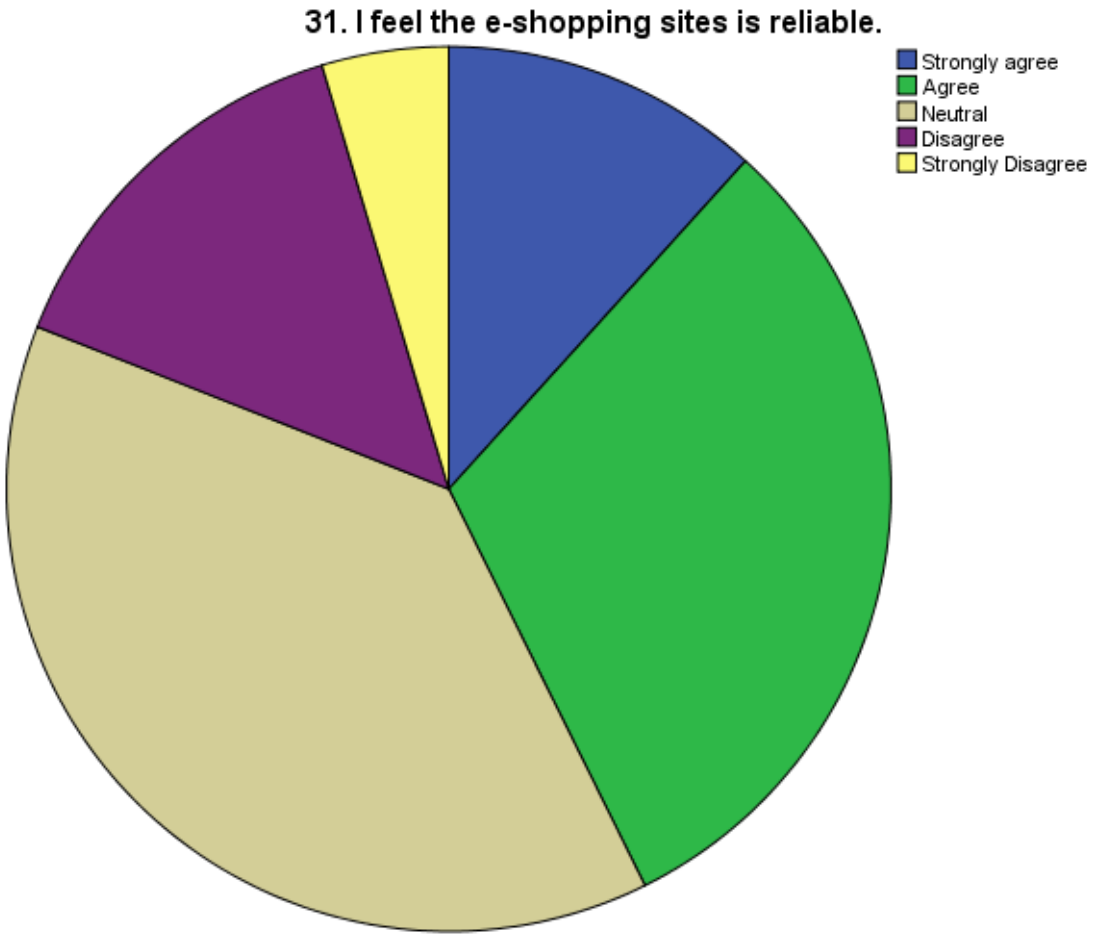
27. Social media sites are concerned with maintaining the confidentiality of my data and privacy.

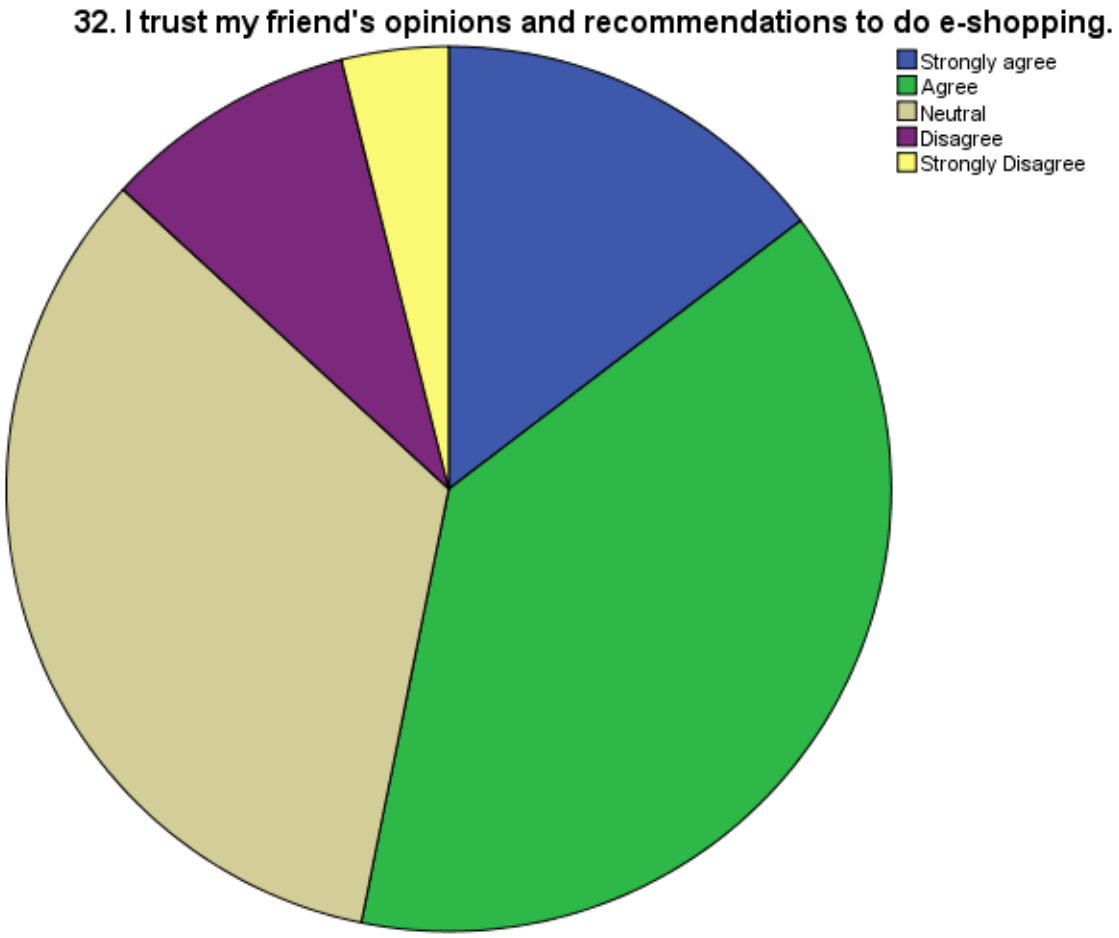


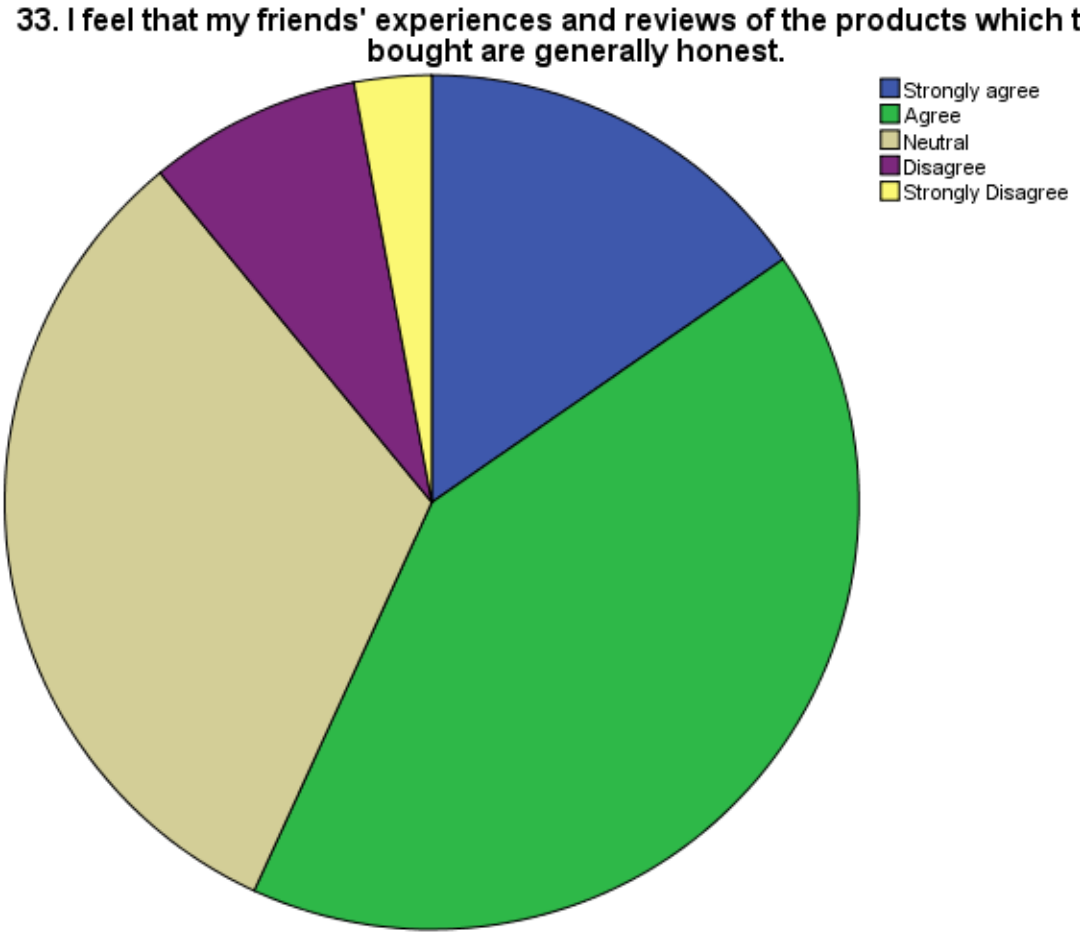

28. Social media such as: Facebook, what's App, Instagram,.. etc. are trust.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

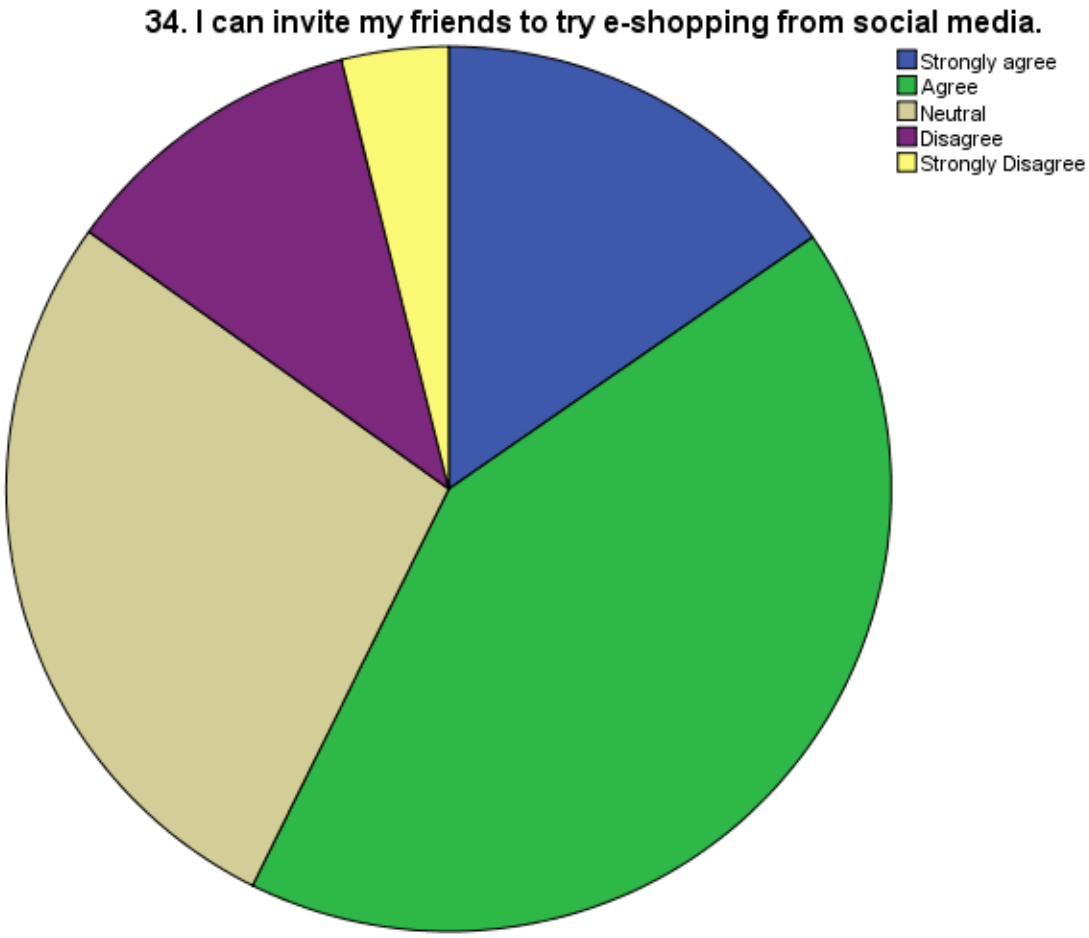

29. Social media shopping services make me more efficient.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

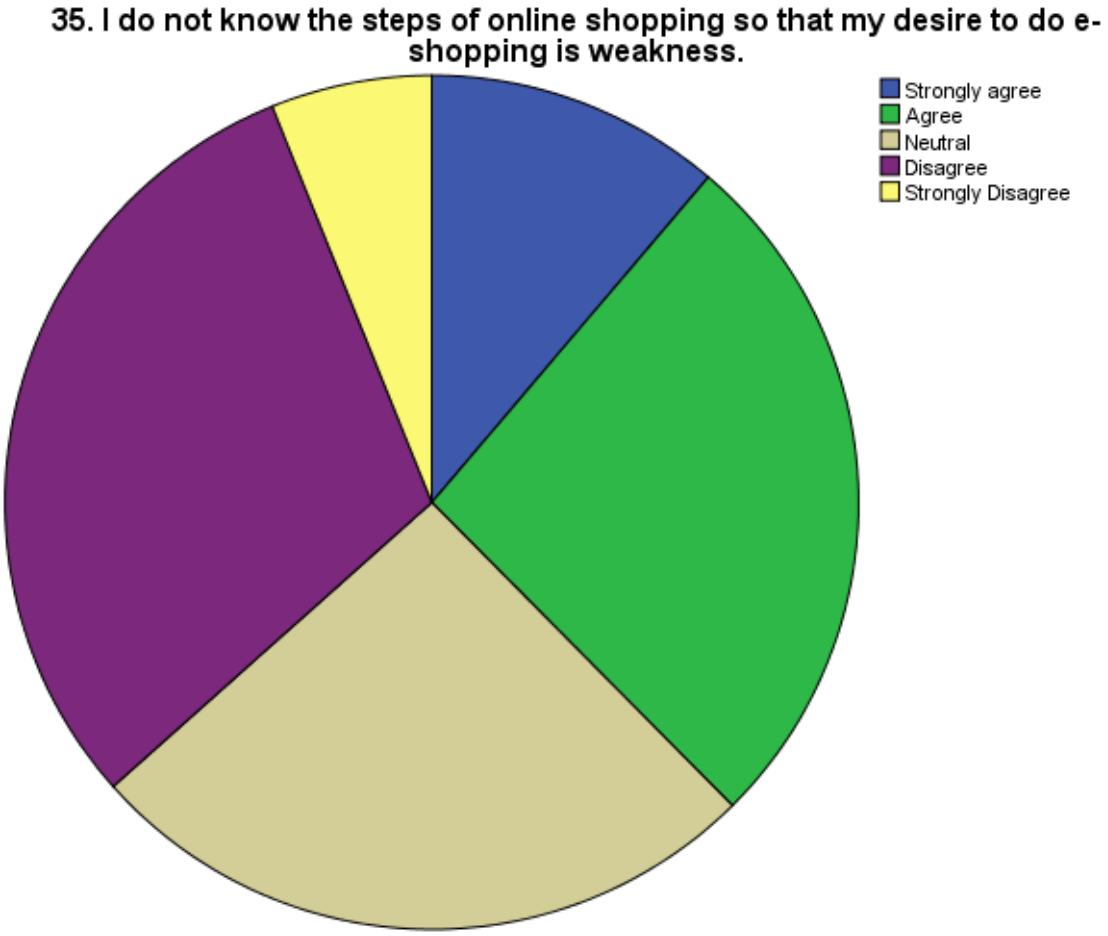

30. Online shopping is better than local shopping.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

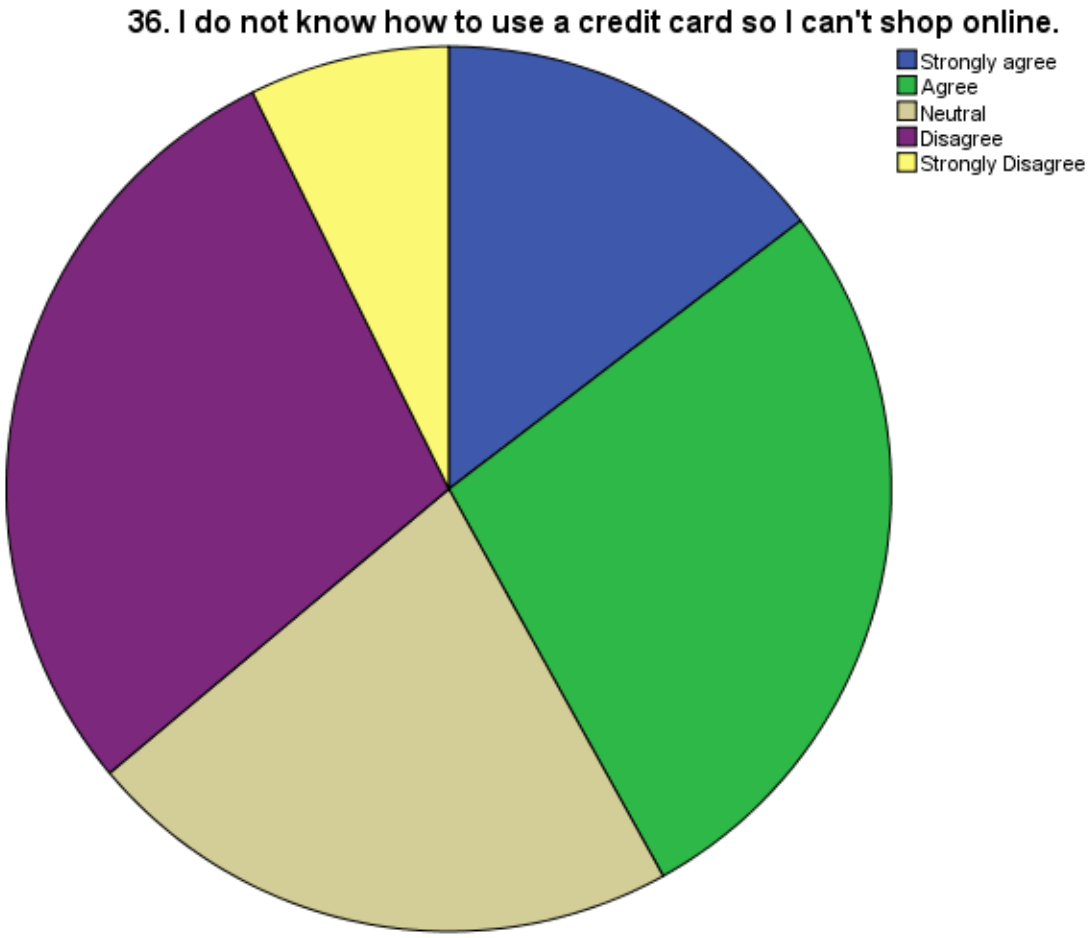

31. I feel the e-shopping sites is reliable.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree


32. I trust my friend's opinions and recommendations to do e-shopping.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

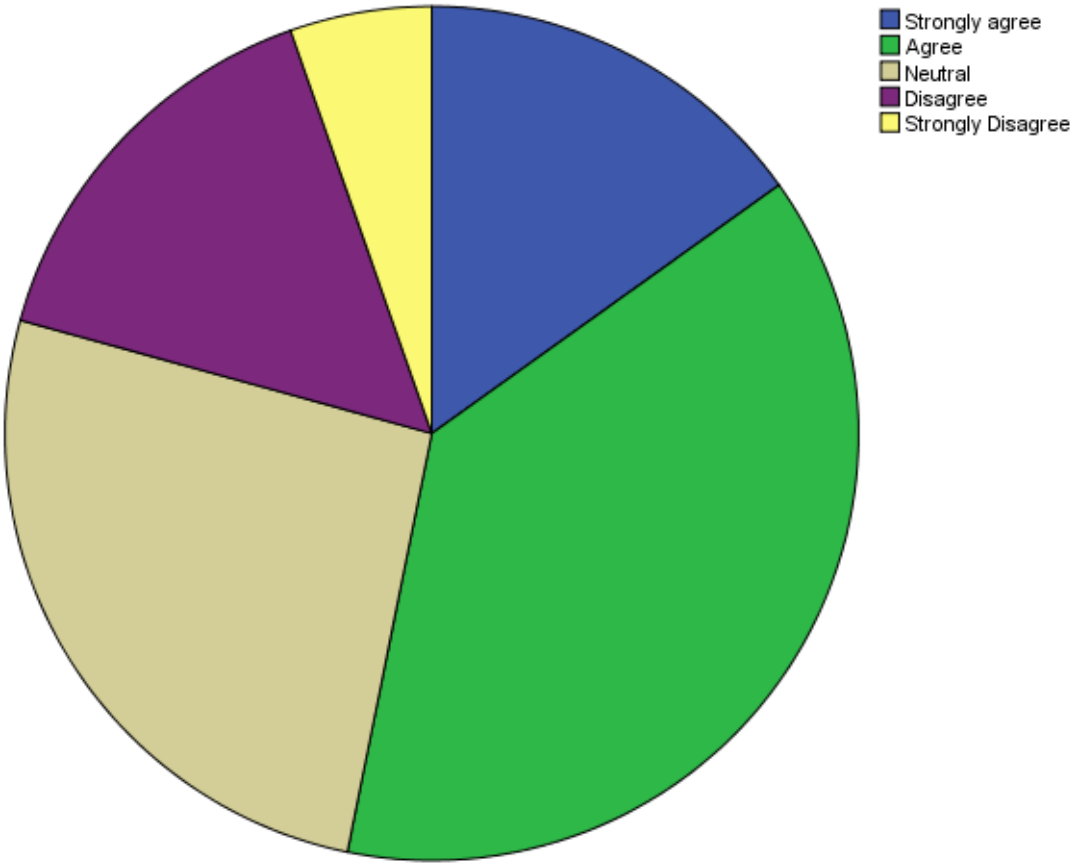

33. I feel that my friends' experiences and reviews of the products which they bought are generally honest.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

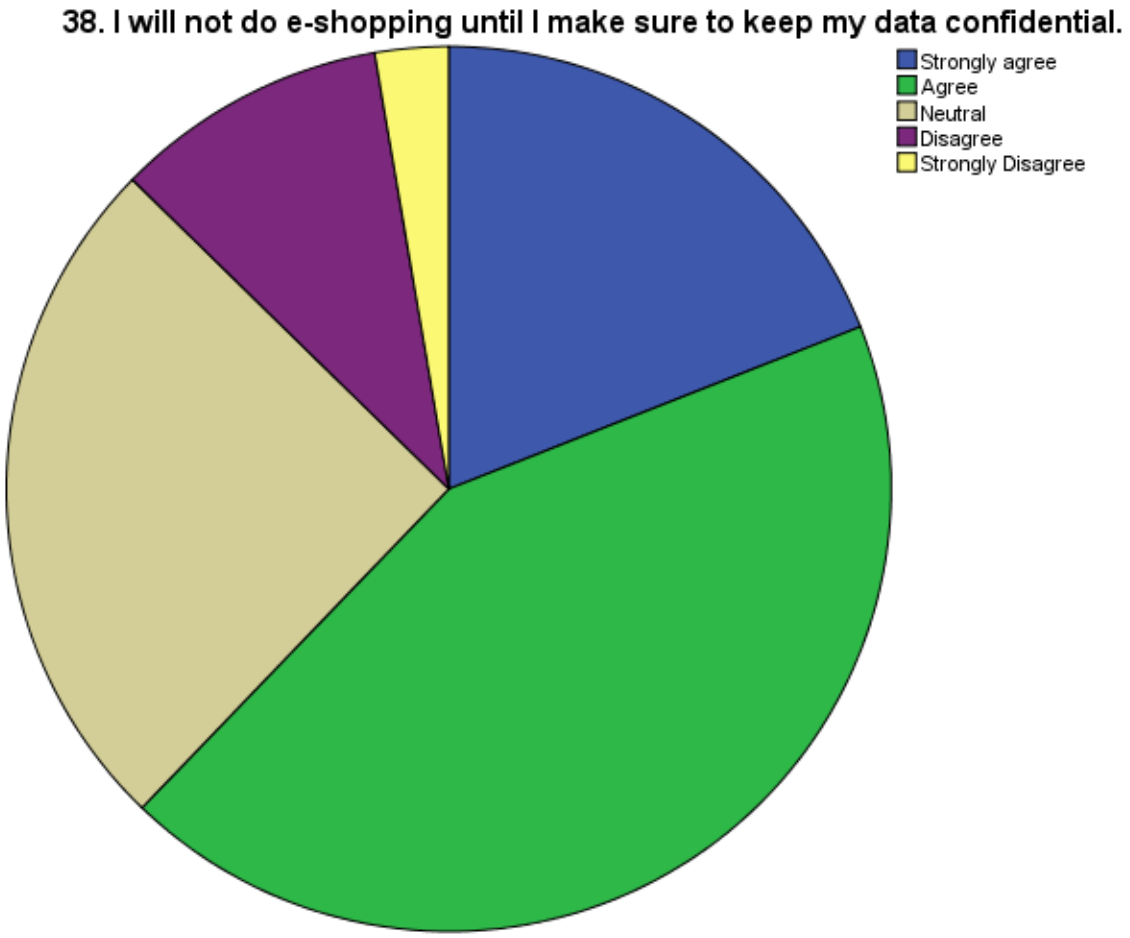

34. I can invite my friends to try e-shopping from social media.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree


35. I do not know the steps of online shopping so that my desire to do e-shopping is weakness.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

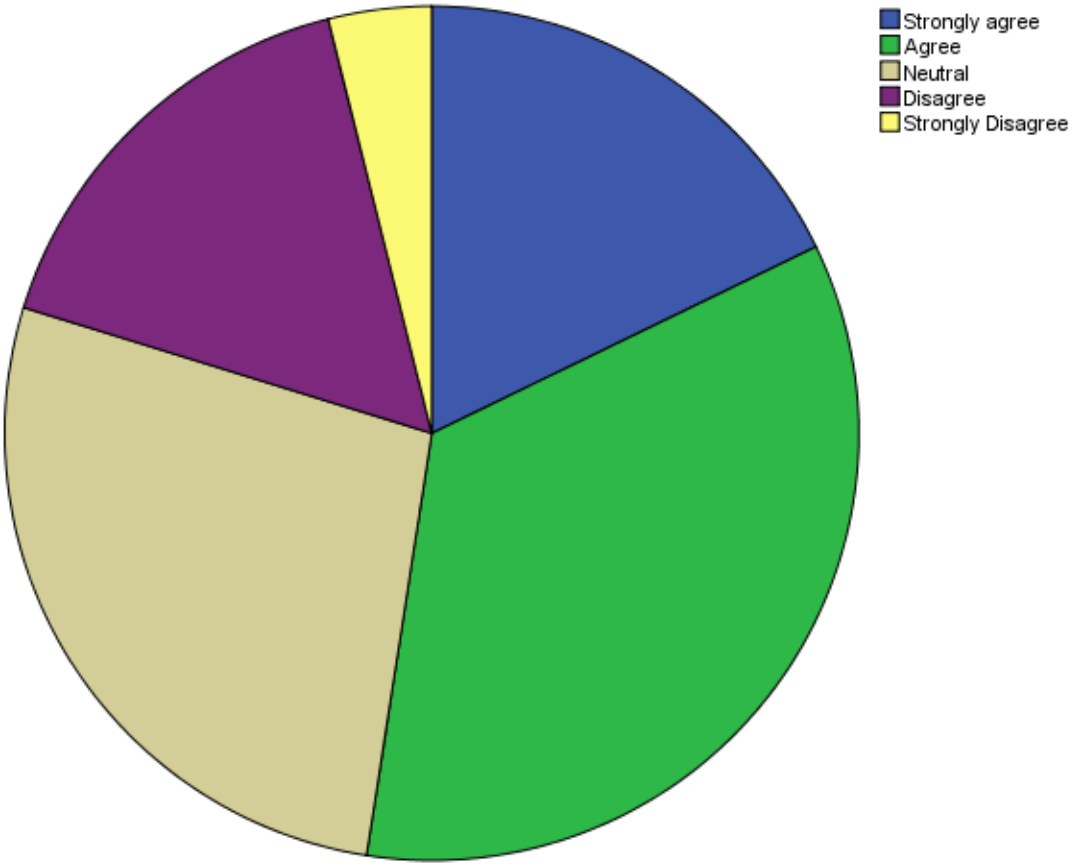

36. I do not know how to use a credit card so I can't shop online.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

37. My lack of knowledge of the quality of the products offered prevents me from e-shopping.

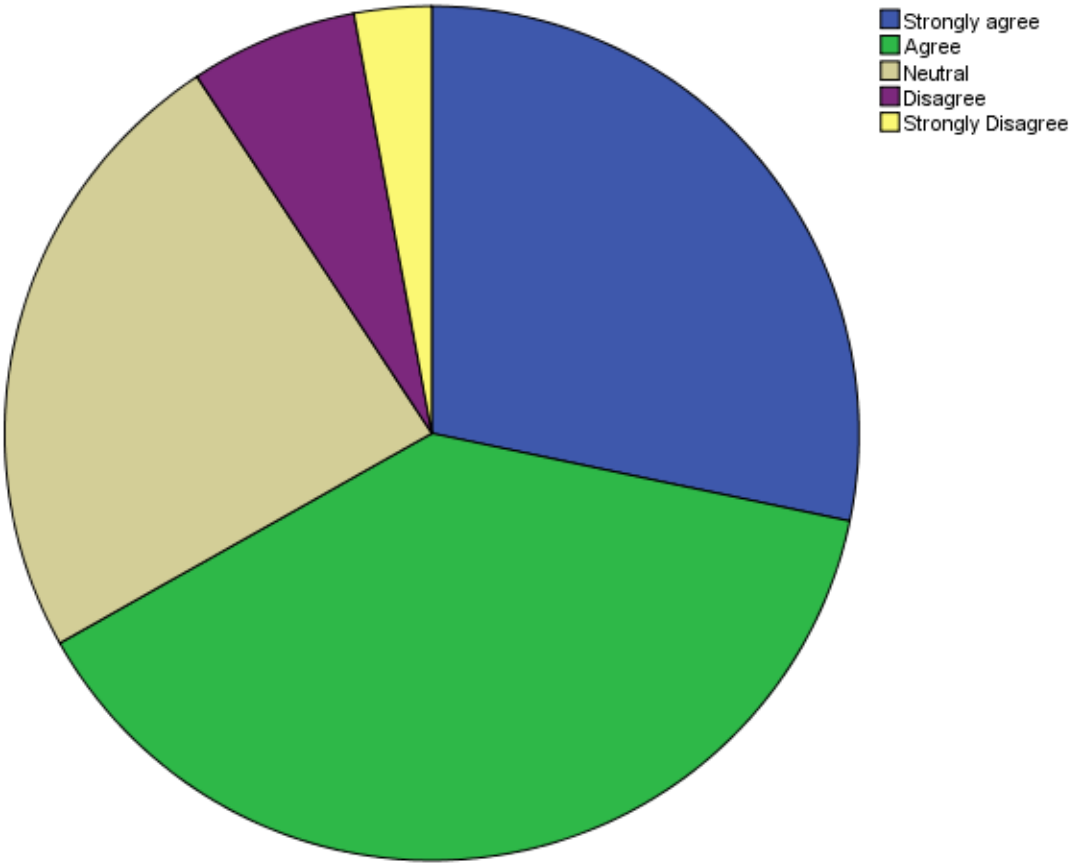



38. I will not do e-shopping until I make sure to keep my data confidential.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

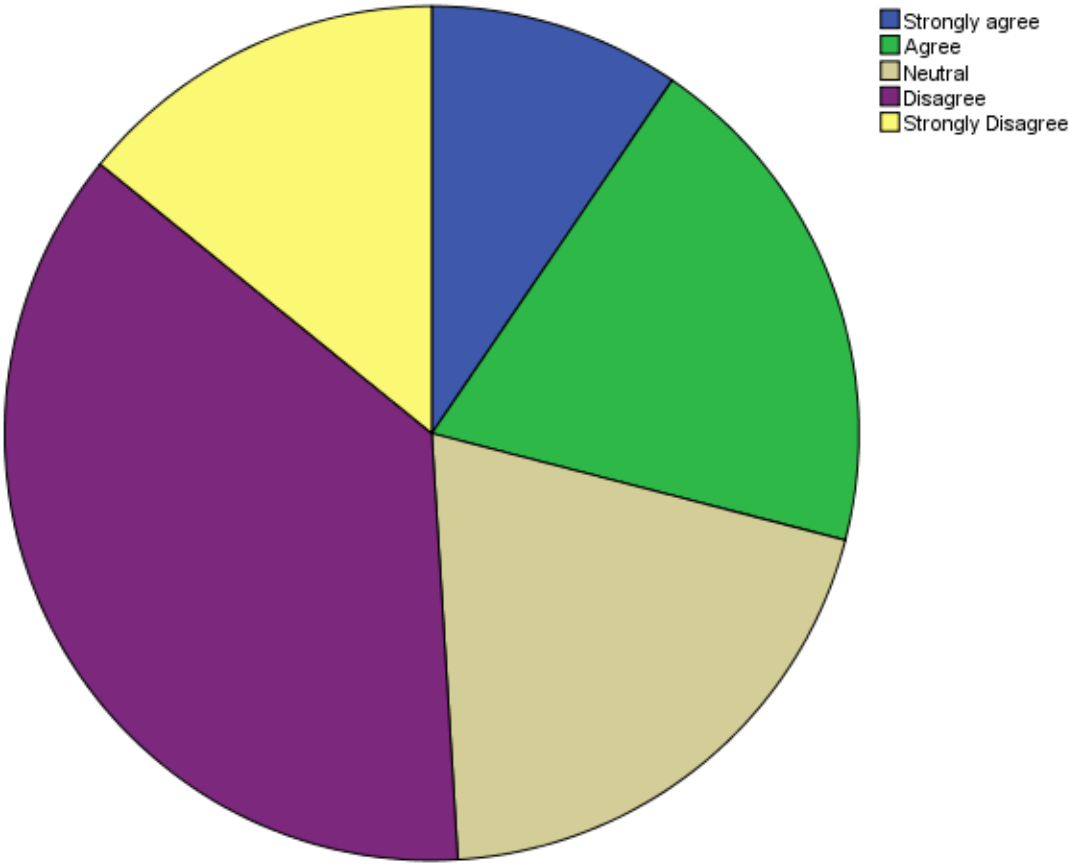
39. I think that Arab e-commerce sites are not safe enough compared to foreign ones.

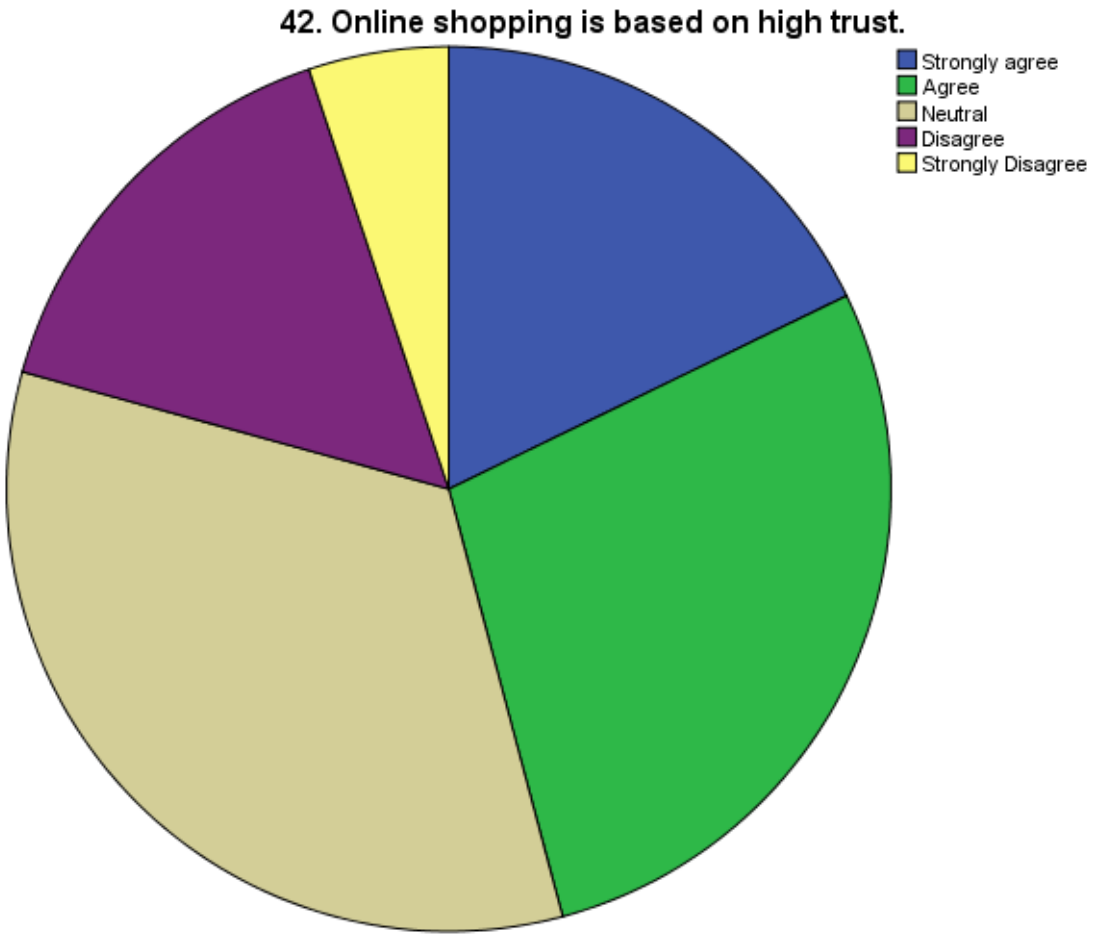


40. Sometimes the actual product purchased from the website is not the same as the product displayed on the same website.

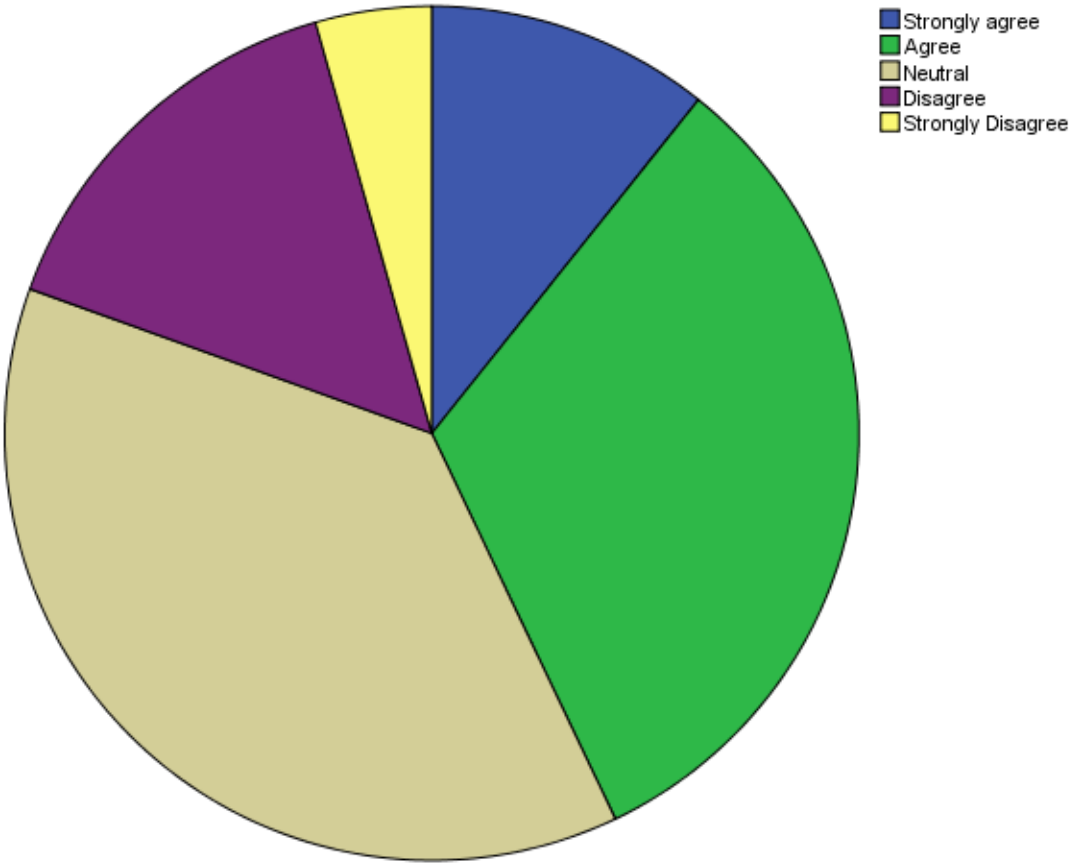


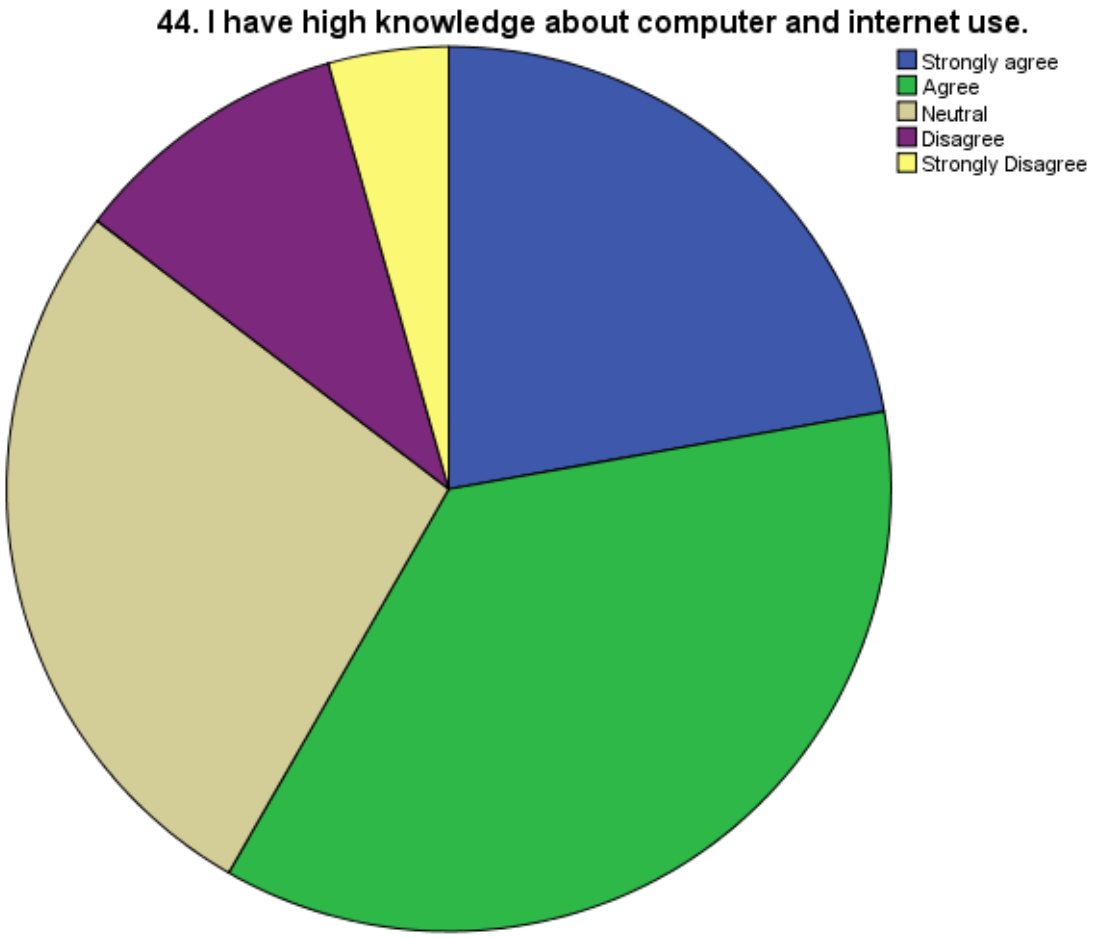
41. I previously shopped online and paid for the product but did not receive the product.



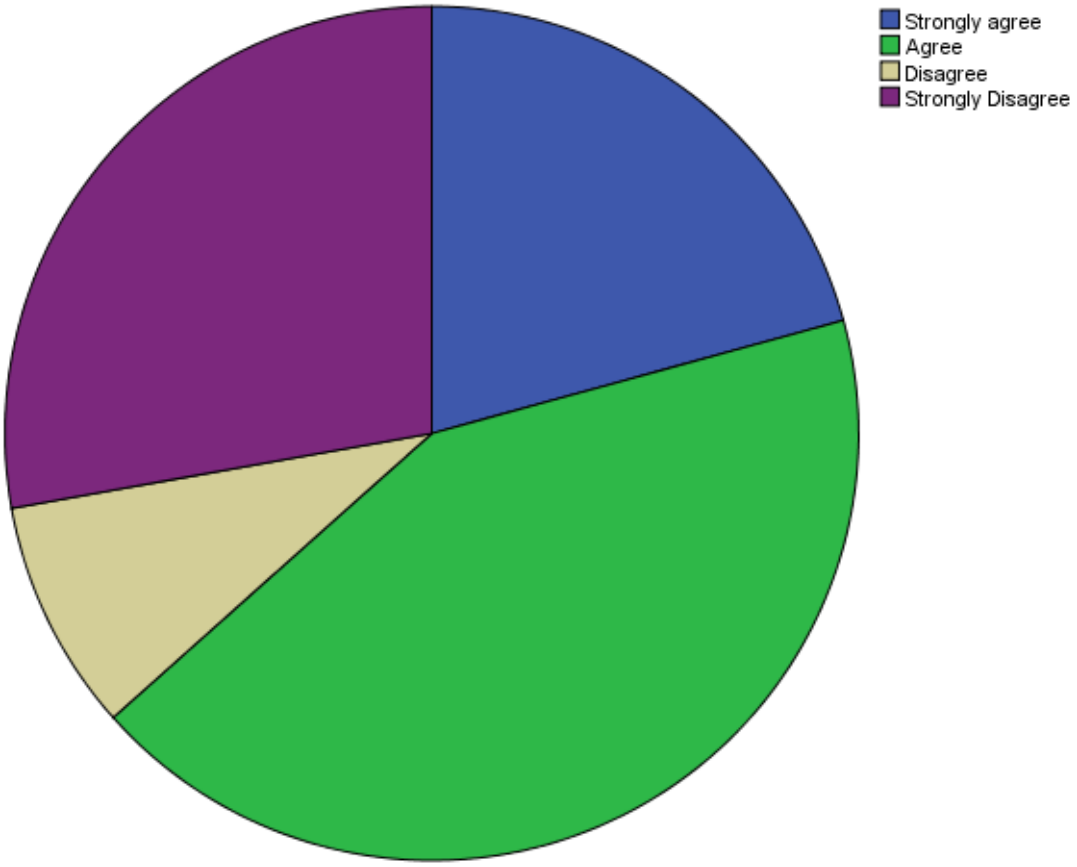

42. Online shopping is based on high trust.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

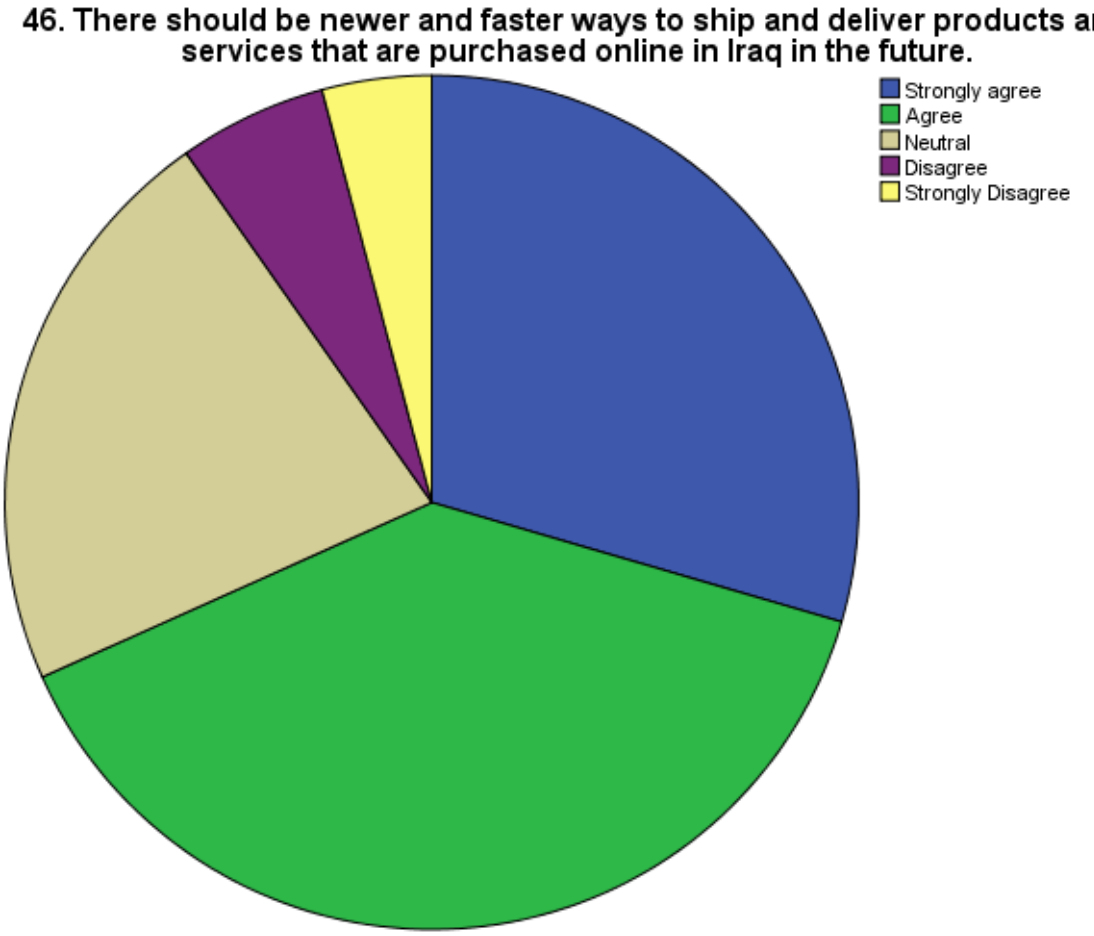
43. There is no confidence in saving personal data and not to use it for other purposes.



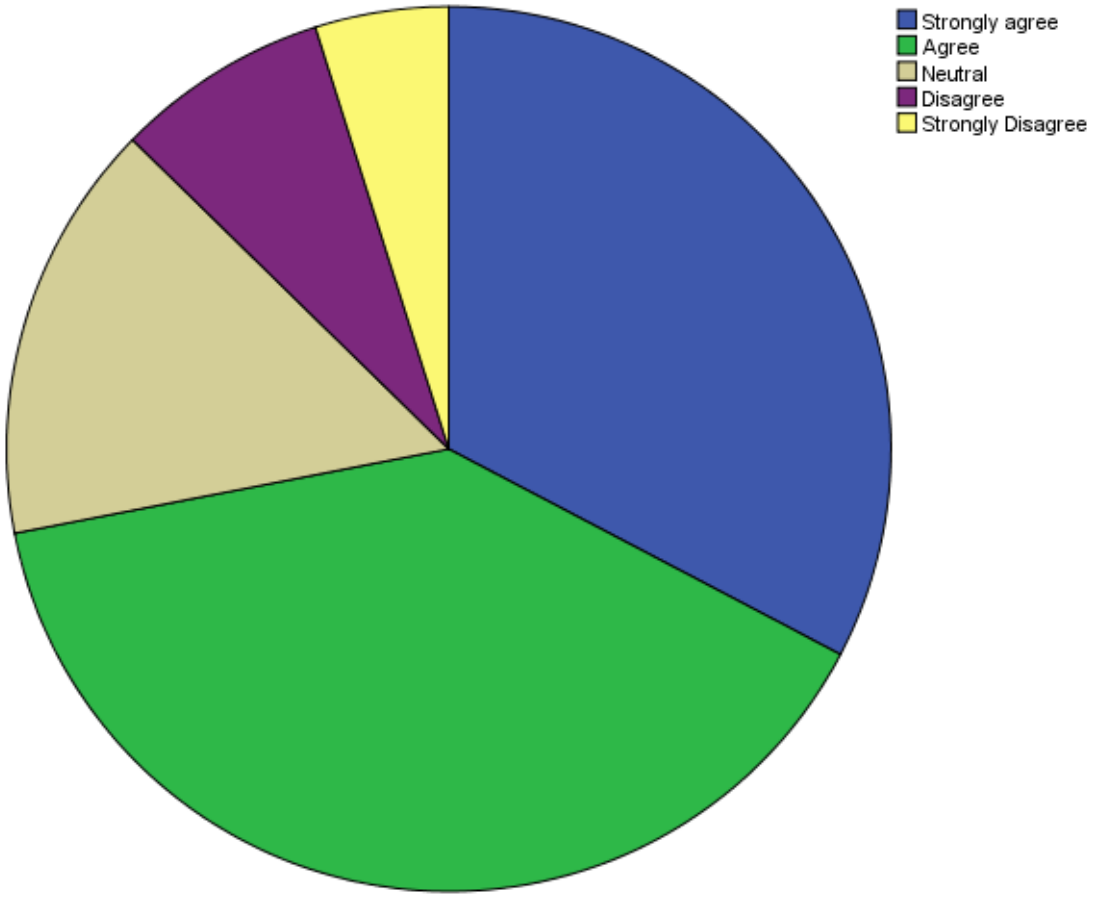

44. I have high knowledge about computer and internet use.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

45. There should be a feature on all social media sites dedicated to e-commerce in the future.

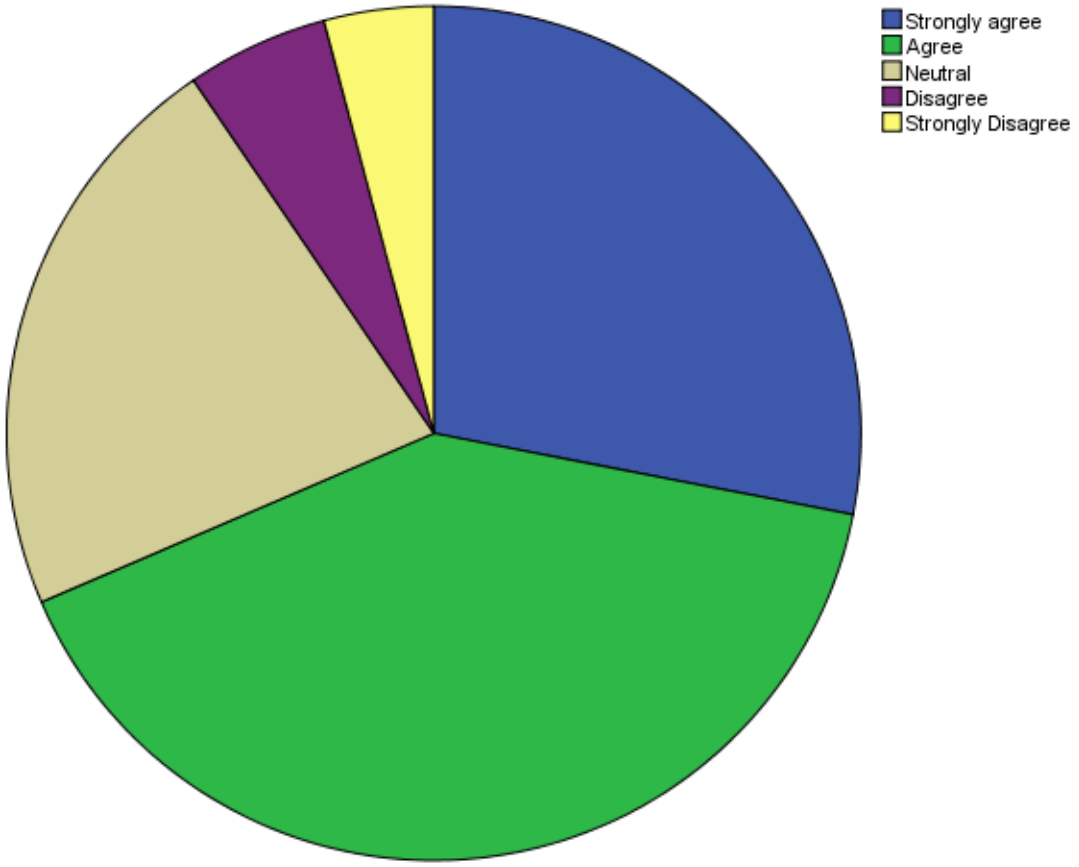


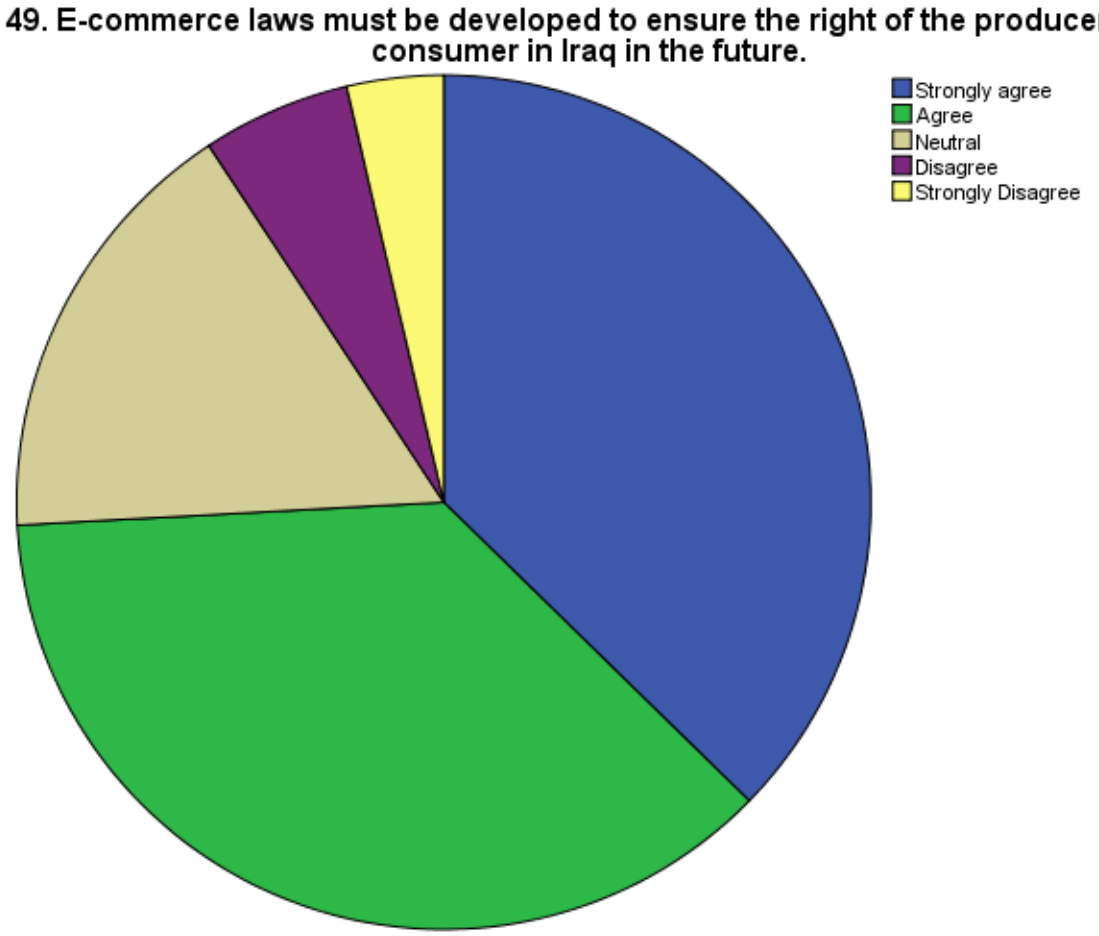

46. There should be newer and faster ways to ship and deliver products and services that are purchased online in Iraq in the future.
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

47. E-commerce companies should provide more branches in Iraq in the future.

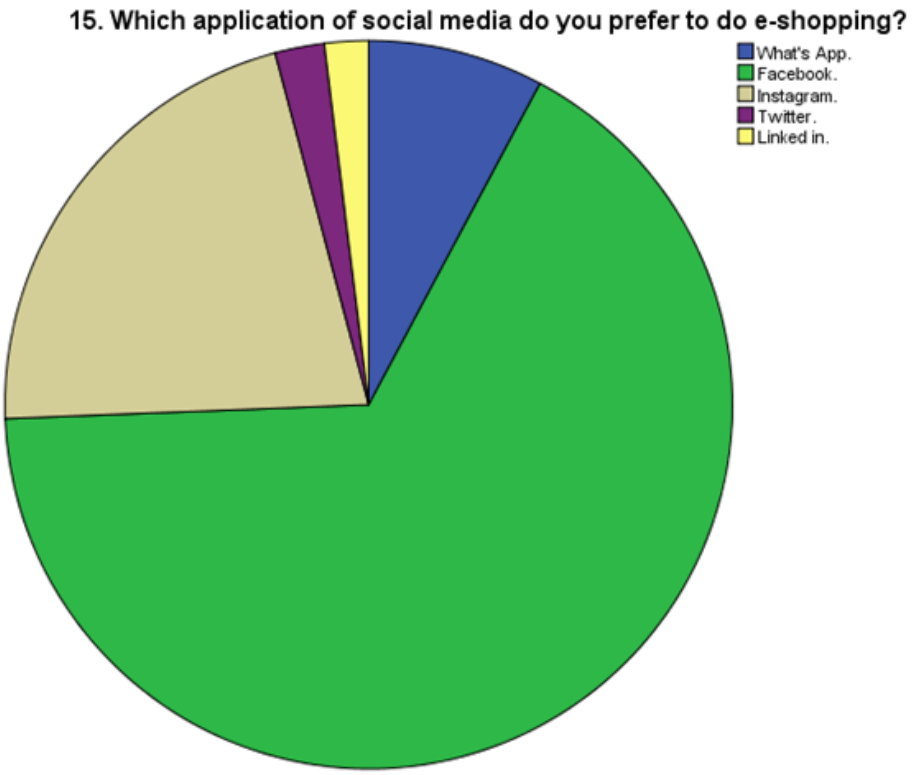


48. Newer and simpler financial methods must be provided to pay the amount of products that are bought online in Iraq in the future.





Charts of Relations Between Variables :



N	Mean	Std. Error of Mean	Median	Mode	Std. Deviation	Variance	Minimum	Maximum
410	2.8634	0.05473	3	3	1.10826	1.228	1	5

SI

Questions	λ	$λ^2$	$1-λ^2$	CR	AVE
q44	0.363307	0.131992	0.868008	0.946077	0.450412
q45	0.493895	0.243932	0.756068		
q46	0.785966	0.617743	0.382257		
q47	0.820617	0.673412	0.326588		
q48	0.734868	0.540031	0.459969		
q49	0.70382	0.495363	0.504637		

Link of publication:_

https://ieeexplore.ieee.org/abstract/document/9672383/

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