The Impact of Digital Market Upon Accounting Profit of Physical Market: An Exploratory Study of the Opinions of a Group of Retailers in Erbil, Kurdistan region

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***Abstract*— Businesses are counted as one of the key ingredients in the growth of any country. This paper illustrates the influence of digital markets on the accounting profit of physical markets when adapting both markets together, especially when there is a problem of lock downing physical markets because of COVID-19. Recently, physical and digital market have been two concepts that complete each other. It is important for retailers to adapt both markets to gain more accounting profit and expand their businesses. The study found that through combining digital to physical markets, the accounting profit of the physical market will grow; this is a primary goal of this study. To demonstrate the relationship, linear regression analysis was used to examine the hypotheses. This research identified the realized impact by testing factors such as the quantity sold, selling price, cost and changing behaviour of customers. Through a significant relation of outcomes, the digital market has a positive influence on the accounting profit of the physical market.**

***Keywords*— physical market, digital market, accounting profit, quantity sold, selling price, customer behaviour, cost.**

I. INTRODUCTION

The past twenty years have seen increasingly rapid advances in the field of technology, which has led to renewed interest in the internet. Internet innovation is one of the most important aspects in the arena of technology improvement. Moreover, internet modernism has influenced the worldwide economy in general and retail industries especially (U.S. Census Bureau cited in Lim et al., 2011). Notably, business routines and activities have probably changed because of the impact of technology development so that marketplaces have progressively moved to digital market (Rayport and Sviokla, 1994). Zhang et al. (2019) proved that online channels, especially electronic commerce (e-commerce), have become a lifestyle, and they are likely to be popular globally. In addition, Sousa et al. (2020) indicated that e-commerce could become mainstream and a major element of business activities. The perspectives of Rayport and Sviokla (1994) have become true: they realized that business models have taken on a new style, which is moved by online technology. In Iraq in general and northern Iraq (Kurdistan Region) especially, technological innovation in business is a new phenomenon. The Kurdistan region is at the beginning stage compared with many developed countries. However, while technological innovation in business is a recent experience, it has been noted that it is growing very fast and is becoming more popular. The importance of social media in business lifestyles can be highlighted. Social media such as Facebook, Instagram, Twitter and Snapchat are some of the most widely used apps and have been extensively considered in terms of business. As Constantinides (2014) argued, many aspects such as social knowledge, collaboration among social and business fields, experiences and market power have been enhanced as a result of internet applications. Additionally, internet applications have a crucial function for creating informal users' networks in order to assist in promoting innovation and creativity. As Dutta et al. (1998) demonstrated, there are two routes that could be adopted by many business creators so that business can consequently survive. The first route is that they always should update their style to make better accounting profit, for that reason they should consider adapting technological sophistication. Second, they should investigate the returns that can be gained from the online activities associated with their ventures.

A. Research problem

Profit is the key goal of all business industries. Obviously, the consideration of business owner is to improve and grow accounting profit. Recently, technology is one of the challenges facing many business industries. At the same time, it could be an essential instrument that should be considered in term of making decisions regarding business improvement in general and financial and accounting perspective specifically. As a result, the problem of the research attempts to emerge from the following areas together with considering on physical market in the recent environment:

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1. After adaption of the digital market, how does the digital market impact the accounting profit of physical market?
2. After adaption of the digital market, how does the sale revenue of digital market impact on the accounting profit of physical market?
3. After adaption of the digital market, how does the cost of digital market impact on the accounting profit of physical market?
4. How was the accounting profit of physical market affected after changing customer behaviour from physical market to digital market?

B. Research objectives:

The objective of this study is to evaluate and validate the rules of online channels in the business fields. In addition, it intends to demonstrate the impact of online channels on the accounting profit of marketplace while considering that the structure of marketplace has been impacted by technology and the internet. Secondly, the study seeks to address the value of adopting a digital market in terms of increasing of accounting profit, cost reduction and maximizing sale revenue of the business. Thirdly, addresses the customers' behaviour regarding switching to the new digital market from the physical market.

C. Significance of research:

This research investigates and explores on a new phenomenon of financial enhancement from the retailers. Similarly, illustrate the main market areas of the performance in the digital market and physical market. Furthermore, it strives to identify the major points of improving accounting profit of retail industries in the Kurdistan region of Iraq.

D. Research hypothesis:

In term of determining the impact of digital market on accounting profit of physical market, the hypothesis of the study is going to looking for these following areas:

Hypothesis 1: The adaption of the digital market has an impact on the accounting profit of the physical market.

Hypothesis 2: The adaption of the digital market, the sale revenue of the digital market has an impact on the accounting profit of the physical market.

Hypothesis 3: The adaption of the digital market, the costs of the digital market influence the accounting profit of the physical market.

Hypothesis 4: Changing customer behaviour from the physical market to the digital market has an impact on the accounting profit of the physical market.

E. Research sample:

This study focuses on retailers' accounting profit in physical markets when adapting to digital markets. Attention was given to those who have both physical and digital markets because the influence could be seen better. Besides, the stores included the following types: cosmetics, clothing/fabric shops, restaurants, pharmacies, food/supermarkets, accessories, electronics, and other types of stores. The data were collected using a questionnaire method, which was distributed electronically using Google Forms due to COVID-19. The study was applied in Erbil, Kurdistan region.

II. LITERATURE REVIEW

A. Conceptual clarification:

1) Physical Market

While a variety of definitions of the term of physical market have been suggested, this paper will use the definition which is advocated by Gerritsen et al. (2014). He described it as a real shop which tends to occupy a specific space in the physical environment. Moreover, customers can visit it, and physically observe, touch and examine products. In addition, customers have more opportunity for consideration of the type, colour, pattern and design, etc., before deciding about purchasing the product. Also, customers can be serviced by individuals; there is no self-service technology. As a result, a physical market is an offline market that does not need any internet accessibility.

2) Digital Market

This market refers to the virtual market. The digital market is a kind of business which take please through e-commerce. Recently, the physical market has taken on different forms of business-to-customers (B2C) as a result of technology development. By accessing the internet, customers can search for products and services that they are willing to purchase. There is no physical touch, examination or observation. Purchasing activities could occur through an explicit sale transaction (Gerritsen et al., 2014). Internet accessibility is very important for online shopping to succeed. Therefore, the internet could be a source of existing digital market.

There are some countries in the forefront of this development, and they rank highly regarding online shopping. It has been found that about 80% of the public have engaged in online shopping (Gerritsen et al., 2014). Also, both Sousa et al. (2020) and Constantinides (2004) noted that products and services had been purchased online by internet users from 20% of countries, globally; however only around 50% of consumers in the US had online purchasing activities. Prominently, digital market could be expanded faster by understanding the mechanisms of online shopping and customers' behaviour (Constantinides, 2014). digital market has become a new strategy of many businesses; consequently, there are more traditional stores that tend to execute and practice modern business strategies. Many physical markets can share their services and products through online activities (Xu et al., 2020).

B. The role of technology innovation on the market style:

Electronic commerce is a new world that is characterized by the internet (Sousa et al., 2020 and Data et al., 1998). As He et al. (2019) argued, the daily lives of many individuals have appreciably changed because of the development of technology such as tablets, mobile applications, smart phones and computers. This is supported by findings from Dutta et al. (1998) have noted that the number of consumers using the

internet has doubled in recent years. This finding is not new because it was estimated many years ago. It is essential that the character of technology should be understood when structuring new marketplaces, especially by considering the crucial role of social media: it can be engaged as an essential toolbox, which is a new marketing strategy. Focusing only on traditional mass market tactics seems insufficient for the accounting profit of commercial organizations (Constantinides, 2014). This is in line with Dutta et al. (1998), who mentioned that most different types of business styles are varied and that they have been transferred to online business. Social media control many businesses. It is true that social media can decrease costs and increase the quality of information and sources, which can disclose every event that happens in the market in any period of time. Such information could be valuable and cooperative for the retailer as they could trace all challenges; furthermore, the retailer could also take market opportunities (Constantinides, 2014). It was also shown that high-capacity transmission techniques such as a high-speed internet connection are positively related to online shopping, and this will promote digital market activities (Forman et al., 2005). In addition, technological development and dimensions are more likely to be different across geographical regions. For example, it is not surprising that the US has a high degree of sophistication of digital market. Obviously, the internet was founded first in the US (Dutta et al., 1998).

In contrast, there are some financial organizations that loath the risk of moving onto the internet. Additionally, they are suspicious of fast-moving technology. The internet, however, is a key weapon that can be used to achieve a competition advantage. Consequently, it has been suggested that many commercial organizations should seek to obtain the benefits from using the internet (Dutta and Segev, 1999). The internet has become the way of doing business for many commercial organizations. It also improves businesses in three ways. According to Constantinides (2014), there is an approximately 95% likelihood of customers recommending products and services. Second, there is an approximately 87% return on internet marketing investment. Finally, there is an upgrading of approximately 95% in terms of customer requisition.

C. Relation between the physical market and digital market:

Digital markets have been considered to be a significant threat to many markets; it is a worldwide observable fact. Furthermore, they have affected the sales and revenues of many traditional markets; consequently, some physical markets have responded to this through global technology development, but some have ignored it (Gerritsen et al., 2014). However, the online world has turned out to be more admired since the potential characteristics have been accepted by different industries. The digital market tends to substitute, improve, and complete the physical market rather than compete with it. Obviously, there are incredible unique effects that have been found regarding how digital markets positively impacts accounting profit in the marketplace. For example, Zhang et al. (2019) noted that physical market, for a while, could suffer from their location and distance if they were situated in an unstrategic area. As a result, several retailers have tended to extend their businesses in terms of opening further branches in different geographical locations; otherwise, they would lose business. However, instead of opening a new branch, online retail could provide a golden option, which is less costly, easy to operate and more convenient. The fundamental function of a digital market is to distribute and expand business activities across a wide area. Furthermore, Zhang et al. (2017) and Zhang et al. (2019) investigated the market accounting profit before and after the implementation of online channels. Digital markets significantly affect the accounting profit and the number of sales of physical markets. As Zhang et al. (2019) demonstrated, accounting profit also tend to climb as the business is more effective since the distribution of products and services has been increased, which also leads to an increase in the number of sales. Moreover, Constantinides (2002) emphasized that the revenues of numerous physical markets can grow sharply for the next few years after adopting a digital market. Retailers, in general, prefer online business because they have found that operating online channels is much easier than operating traditional markets (Dutta and Segev, 1999).

D. Reasons of adapting digital market from retailers:

1) Types of products and services sold:

Several studies have realized that the type of product might be a reason for accepting the digital market; the attitude and behaviour of customers tends to change according to the types of products and services. Phau and Poon (2000) highlighted the impact of the product type on customers' choices and decisions. They found that intangible products are more suitable for purchasing from digital markets because intangible goods always have reasonable prices and there are fewer risks regarding these kinds of products compared with other expensive goods. It is notable that more than 2 billion individuals have purchased products and services from online stores globally. In particular, there were 1.46 billion online purchases of digital products in 2015 (Kalia et al., 2016). In addition, Lee et al. (2003) concentrated on CDs in their research; the results showed that CDs are one of the most well-liked products in online shopping. Other popular online products include music, videos, software, media contents, clothes, books, and computers, also, are more favourable among customers (Enders and Jelass, 2009; Lee et al., 2003). All of this shows that a product's category is a vital element that might affect customers' decisions about purchasing from physical or digital market. However, some retailers cannot accept the modern business style because some retailers have low accounting profit, and the nature of some industries sometimes dominates the acceptance of new online business styles. For example, customers are less willing to shop online for groceries (Enders and Jelass, 2009). Obviously, this was true in 2009, but in 2020, the perspective totally changed, and online shopping became more popular for every single product

and even groceries because of the recent conditions and COVID-19. Zhang and Zheng (2021) discovered that the business relations between customers and retailers might be strengthened. Furthermore, there could be more accounting profit when there is mass customization, and they also suggested that customization could be an efficient strategy that seeks to increase the accounting profit of retailers. Many companies thus try to use mass customization in order to gain a competitive advantage. Obviously, a variety of products, if provided, leads to better accounting profit. In contrast, the study of Gaur and Honhon (2006) did not support the findings of Zhang and Zheng (2021). Rather, they argued that increasing the variety of products does not have any benefits without drawbacks. Unfortunately, increasing the product variety requires planning and inventory management, which is not easy.

2) Product and services price:

Kalia et al. (2016) demonstrated that the price of a product is vital to encourage customers to perform their shopping in digital market. Therefore, it is a central point that the prices of products online should be lower than those of the same products in the physical market. However, the selling price of product tends to be decrease but at the same time the sale revenue will be increased. As Kalia et al. (2016) stated, digital market offers rewards such as discounts or attempt to cut product pricing in such a way that it does not decrease the accounting profit of the retailer. Perhaps there are many other extrinsic motivations such as time saving, minimizing costs and the availability of information. Hasslinger et al. (2008) criticized Kalia et al. (2016); they argued that while the price could be lower, there are many other expenditures that can raise the costs such as delivery costs or other freight costs. Price differences from digital markets may not be worthwhile and cannot impact customers' decisions about purchasing activities (Li et al., 1999). Phau and Poon (2000) and Lee et al. (2011) have identified that product prices are an important factor: if the price of the product becomes high, it will be difficult for customers to decide about purchasing the product. The authors highlighted that expensive product such as cars and jewellery are not purchased online because these kinds of goods are more likely to need closer inspections before deciding about purchasing the products. Additionally, expensive products always have more risk compared to simple products such as clothes, digital products, etc. Price dispersion in physical markets is higher, and it varies more wildly compared with prices in digital markets (Lee et al., 2011). Additionally, customers can benefit from improving the price competition among online sellers (Lee et al., 2003).

3) Cost reduction of physical market.

Wide-ranging electronic commerce is more likely to provide market efficiency via online channels. Physical retail could be more effective by increasing market accessibility and information together with reducing the costs related to operations and procurement (Lee et al., 2011). For example, the rent per square metre is a notable amount, and it is the kind of expenditure that affects revenue; indeed, responding by implementing digital market instead of opening new branches can eliminate rent expenditures along with electricity, utilities, insurance, wages, etc. (Gerritsen et al., 2014). It can be observed that there are no cost increases because physical markets have the same number of employees, and there are several costs that remain the same; the only difference is that the online channel is added as a new strategy for improving accounting profit. In contrast, some researchers have determined various business industries' perspectives about switching online channels. Many retailers have thought that there is a high cost for adapting to digital market. Consequently, it can be assumed that they will make a negative decision regarding using modern business models. McCorkle (1990) disagreed with the innovation of digital markets because he found that there is more likely to be potential overpayments or 'hidden costs,' such as the costs of receiving, returning, and maintaining products, which are a kind of financial risk that are realized in e-commerce. Moreover, Dutta et al. (1998) illustrated that there are different degrees of market space sophistication between all financial sectors, and they have different dimensions. Additionally, Dutta and Segev (1999) argued that traditional large companies do not desire to take advantage of the internet or the online business model because most large companies have organized routines, activities, and natures. However, those companies are more likely to think that by changing their business model, they will lose their organizational nature. Therefore, they do not consider changing their business model, and they will continue in their traditional nature (Dutta and Segev, 1999).

4) Customer's behaviour regarding digital market:

Customers' behaviour can be affected by certain aspects, which must be identified and understood by business owners. Customers' behaviour could be a type of theory that retailers can consider when attracting and retaining customers. Recently, the development of technology and the internet has coalesced into the idea of "online customer behaviour" (Kalia et al., 2016). In addition, Constantinides (2004) has implied some factors such as culture, social, economic, psychological, and other personal factors that control and influence customers' behaviour and decisions regarding online purchasing processes. Indeed, technology has had a considerable role in the advancement of customers' behaviours and preferences (Hampton and Wellman, 1999). However, the evaluation of product characteristics in the digital environment can be a primary problem for customers. Digital market is preferable to customers if the value and quality of products can be assessed (Bhattacharjee, 2002). Consequently, digital market is more favourable; therefore, customers are inclined to engage in online shopping due to some of its favourable characteristics. For example, compared with physical markets, digital market is more convenient: there is no stress and no need to manage or plan for the day when customers want to go shopping. Another important point could be accessibility. Customers can access their requirements anytime and anywhere. Additionally, digital market has been described as being easier, more useful and

pleasurable (Chen and Hitt, 2001; Hassanein and Head, 2007). Clearly, overcrowded large cities could also be a reason for increasing customers' desire and altering customers' behaviour for digital markets, which is emphasized by Andrews et al. (2016). Furthermore, Sousa et al. (2020) compared the usage of digital markets between rural and urban customers. The authors found that for some product categories, the number of purchases from rural customers was higher than that for urban customers. In contrast, Lim et al. (2011) claimed that while e-commerce has brought many benefits, there are some limitations. There are risks involved in online services, and customers might sometimes be faced with unsafe transactions and security challenges. Similarly, Bhatnagar et al. (2000) argued that the security and risk issues while using the internet can increase the reluctance of online buyers. However, Helander and Khalid (2000) criticized the results of Bhatnagar et al. (2000) and Lim et al. (2011). They found that customers' behaviour is more likely to be affected by many other factors, such as quality, availability, product accuracy, price, and cost, rather than the risk that is related to the internet and e-commerce. In addition, Keeney (1999) stated that there are many fundamental objectives associated with e-commerce and online business. Many financial institutions have generally sought to reduce online fraud, increasing the safety of using credit cards and personal information. Additionally, they attempt to maximize product information, the accuracy of information and financial transactions, product availability and accuracy. Moreover, it has been suggested that customers should be educated about digital market in order to ensure their privacy and secure their online activities (Gillenson and Sherrell, 2002).

III. Methodology

Multiple linear regressions have been used in this study to demonstrate the relation between dependent and independent variables. There is a relationship between the quantity created and sold and the resulting effects on revenues, costs, and accounting profit. These relationships are known as the revenue function, cost function and profit function, respectively. They can be articulated in terms of tables, graphs, or algebraic equations. In basic terms, profit = selling price - costs while revenue is the price of a product multiplied by the number of units sold (Salvatore, 2012) according to the equation. This study selected accounting profit as the dependent variable. The independent variable is the costs of the digital market since the costs can negatively influence accounting profit (Lee et al., 2011; Wang et al., 2003), the quantity sold, the selling price and change customers' behaviour towards the physical market. The idea of "buy online, pick up offline" can have a good impact on customers' behaviour since they will save shipping and handling fees (Kalia et al, 2016). The basic equation is as follows:

Y (Accounting profit) = β0 - β1 Cost + β2Quantity Sold + β3 Selling price + β4 Changing behaviour.

IV. Data:

This study focused on retailers' accounting profit in physical markets when adapting to digital markets. Attention was given to those who have both physical and digital markets. The data were collected using a questionnaire, which was distributed electronically using Google Forms due to COVID-19. The EViews 10 program was used to analyse the data. The questionnaire was distributed to 210 stores that had physical and digital markets. The stores included the following types: cosmetics, clothing/fabric shops, restaurants, pharmacies, food/supermarkets, accessories, electronics, and other types of stores. In total, 180 stores responded, but the analysis was conducted with 142 stores.

V. Data analysis and results:

A. *Sample characteristics:*

The descriptive statistics of the responding samples' characteristics were analysed and are presented in Table I. Based on the results of this study, most of the customers were female since the results illustrate that 69% of the customers were female and 31% were male. This result was supported by Dutta et al. (1998) who found that women are more interested than men to use the internet and shop online. The stores included the following types: cosmetics, clothing/fabric shops, restaurants, pharmacies, food/supermarkets, accessories, electronics, and other types of stores. Among the vendors, 42.3% have a bachelor's degree, 23.9% have a master's degree, and 8.5% have a PhD degree. The education level of the vendors influences how they can manage their business; moreover, those vendors who have good education levels are more likely to be open to the idea of digital markets.

TABLE I
DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

Start the business	Percentage	The customers are usually	Percentage
Physical market	42.3	Female	69
Digital market	25.4	Male	31
Both markets	32.4		
Vendor education level	Percentage	Most of customers prefer	Percentage
Without a certificate	1.4	Physical market	22.5
Primary school	5.6	Digital market	36.6
Secondary school	9.9	Both markets	40.8
Diploma	8.5		
Bachelor's	42.3		
Master's	23.9		
PhD	8.5		
Duration of having a physical market	Percentage	Duration of having a digital market	Percentage
1-6 months	4.2	1-6 months	4.2
7-12 months	25.4	7-12 months	22.5
1-3 years	22.5	1-3 years	64.8
4- 6 years	21.1	4- 6 years	7.0
7 or more	26.8	7 or more	1.4

Meanwhile, they said that attaining goods is easier in digital markets. Here, 36.6% of customers preferred digital markets, and 22.5% of customers preferred physical markets. It could be a good motivation for vendors to start their stores using both markets or even start with the digital market first; however, one fact should not be forgotten is that less developed customers are still not accustomed to digital markets, As presented in Table I.

B. Assumptions

A homoscedasticity test was applied in the study model; it was appraised by plotting the residuals in versus the predicted values (Bates et al., 2014; Field, 2013; Osborne and Walters, 2002). The assumption of homoscedasticity is met if the points appear randomly distributed with a mean of zero and no ostensible curvature. The model of this study is homoscedastic. As demonstrated in Figure 1.

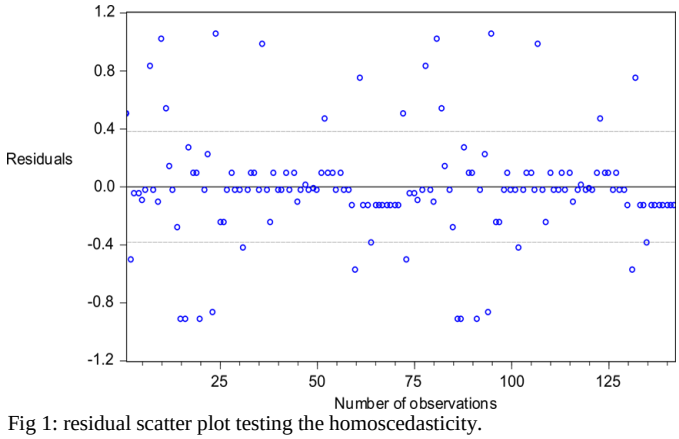

Fig 1: residual scatter plot testing the homoscedasticity.

TABLE II
VARIANCE INFLATION FACTORS FOR CHANGING BEHAVIOUR, QUANTITY SOLD, SELLING PRICE AND COST.

Variables	VIF
Changing behaviour	6.58
Quantity sold	9.78
Selling price	9.17
Cost	6.23

Variance inflation factors (VIFs) were calculated to detect the presence of multicollinearity between predictors. High VIFs indicate increased effects of multicollinearity in the model. Conversely, it shows that independent variables have great collinearity with other variables in the model. VIFs greater than five are cause for concern, and VIFs of 10 should be considered the maximum upper limit (Menard, 2010). All predictors in the regression model have VIFs less than 10 and greater than five; therefore, the findings of the study suggest that there is a high correlation. As shown in Table II.

Additionally, the Pearson correlation requires that the relationship between each pair of variables is linear (Conover and Iman, 1981). This assumption is violated if there is curvature among the points on the scatterplot between any pair of variables. **Figure 2** through **Figure 5** presents the scatterplots of the correlations. A regression line has been added to assist the interpretation. As presented in **Figure 2,3,4** and **5** respectively.

Fig.2: Scatterplot between the dependent variable (accounting profit) and independent variable (quantity sold) with the regression line added.

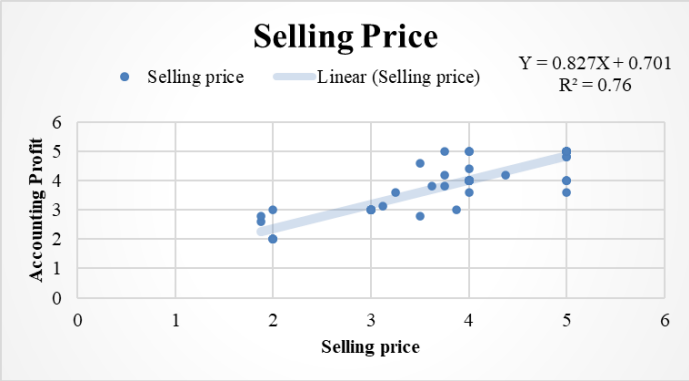

Fig 3: Scatterplot between the dependent variable (accounting profit) and independent variable (selling price) with the regression line added.

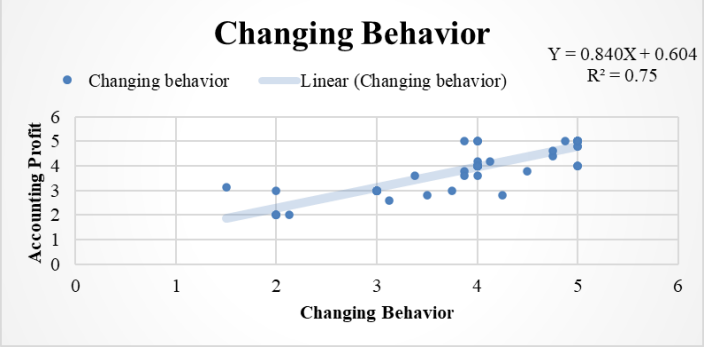

Fig.4. Scatterplot between the dependent variable (accounting profit) and independent variable (changing behaviour) with the regression line added

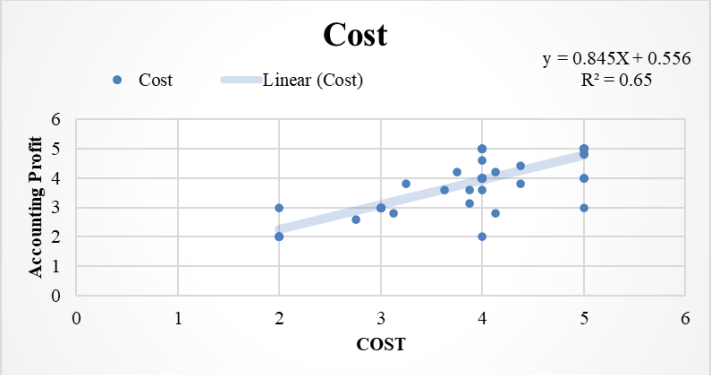

Fig.5. Scatterplot between the dependent variable (accounting profit) and independent variable (cost) with the regression line added

The outcome of the correlations was inspected using Holm corrections to adjust for multiple comparisons based on an alpha value of 0.05. A significant positive correlation was observed between accounting profit and changing behaviour (r_p = 0.87, p< .001, 95% CI [0.80, 0.92]). The correlation coefficient was 0.87, indicating a large effect size. A similar relation was found between accounting profit and selling price (r_p = 0.87, p< .001, 95% CI [0.81, 0.92]). A significant positive correlation was observed in the correlation coefficient between accounting profit and selling price at 0.87, indicating a large effect size. A significant positive correlation was observed between accounting profit and quantity sold (r_p = 0.89, p< .001, 95% CI [0.82, 0.93]). The correlation coefficient between accounting profit and quantity sold was 0.89. A significant positive correlation was observed between accounting profit and cost (r_p = 0.81, p< .001, 95% CI [0.71, 0.88]). The correlation coefficient between accounting profit and cost was 0.81. The results are shown in Table III.

TABLE III
PEARSON CORRELATION RESULTS AMONG ACCOUNTING PROFIT, CHANGING BEHAVIOUR, SELLING PRICE, QUANTITY SOLD AND COST.

Combination	R_p	95% CI	p
Accounting profit – Quantity sold	0.89	[0.82, 0.93]	< .001
Accounting profit – Selling price	0.87	[0.81, 0.92]	< .001
Accounting profit – Changing behaviour	0.87	[0.80, 0.92]	< .001
Accounting profit – Cost	0.81	[0.71, 0.88]	< .001

Note: *n* = 142; Holm corrections used to adjust *p*-values.

C. Hypotheses tests:

Returning to the hypothesis posed at the beginning of the study, it is now possible to give the results of both ANOVA and multiple linear regressions in Table IV and Table V, respectively.

Hypothesis 1: The adaption of digital market has an impact on the accounting profit of the physical market. The overall model was statistically significant (R^2= 082, p-value>0.001); therefore, it has a high explanatory influence relation for this research model. All independent variables were found to be significant in explaining accounting profit, shown in Table IV, according to the ANOVA results {F-test (4, 137)157.906, p>0.000}. Consequently, according to the ANOVA results, hypothesis 1 tends to be accepted, and accounting profit can be explained by changing behaviour, quantity sold, selling price and costs. It is demonstrated in Table IV.

TABLE IV
ANOVA RESULTS.

	SS	*Df*	*MS*	*F-test*	*Sig.*
Regression	92.171	4	23.043	157.906	0.000
Residual	19.992	137	0.146		
Total	112.162	141			

However, the results of multiple linear regressions in Table V present a different outcome. Among the independent variables, cost has a negative relation and does not significantly predict accounting profit (β= -0.127, t (137) = -1.356, p = 0.177). Based on this sample, a one-unit increase in the cost of digital markets does not have a significant effect on accounting profit because in the sample that was chosen for this study, the cost of digital markets does not have a considerable effect; in other words, the costs are insufficient such that the outcome cannot be perceived since the cost of online platforms of this study is zero or barely has an influence. Additionally, this result could be biased since it could be affected by the other variables. However, the quantity sold has significantly predicted accounting profit (β= 0.39, t (137) = 3.494, p = 0.0006) with a positive relation. The selling price significantly predicted accounting profit (β = 0.34, t (137) = 3.156, p = 0.0020). Additionally, changing behaviour significantly predicted accounting profit (β = 0.31, t (137) = 3.349, p= 0.0020). This indicates that, on average, an increase changing behaviour will increase accounting profit. It is presented in Table V.

TABLE V
RESULTS OF THE MULTIPLE LINEAR REGRESSIONS.

Independent variables	Towards accounting profit		
	β	***t*-test**	***p* value**
Cost	-0.127	-1.356	0.1772
Quantity sold	0.390	3.494	0.0006
Selling price	0.34	3.1561	0.0020
Changing behaviour	0.31	3.349	0.0010
Constant	0.457	2.06	0.043
R^2	0.82		
Adjusted R^2	0.81		
F-value	157.906		
p value	0.000000		

Note: Results: Accounting profit = 0.457- 0.127*Cost + 0.390*Quantity Sold +0.34*Selling price+ 0.31* Changing behaviour.

Hypothesis 2: The present study confirms previous findings and contributes additional evidence that determines the effect of digital markets on the sales of physical markets. The research, in two dimensions, will improve the impact of digital markets on the sale of physical markets with (R^2 = 0.807 and p-value> 0.001). The first dimension is the quantity sold. As expected, it is found that there is a positive significant relation between the quantity sold and accounting profit (β= 0.53, t=

5.491, p = 0.00). The second dimension is the selling price; there is also a positive significant relation between the independent variable of selling price and the dependent variable of accounting profit (β= 0.350, t= 3.737, p = 0.0003). This result is in line with the findings of Lee et al. (2011) and Kalia et al. (2016). Based on the results of the ordinary least squares linear regressions from Table VI, hypothesis 2 is accepted because the significant correlation of quantity sold and selling price of the digital market will increase the sales revenue of the physical market, which causes growth and accounting profit. It is supported by Table VI.

TABLE VI:
RESULTS OF THE ORDINARY LEAST SQUARES LINEAR REGRESSIONS BETWEEN DEPENDENT VARIABLE OF ACCOUNTING PROFIT AND INDEPENDENT VARIABLES OF THE QUANTITY SOLD AND SELLING PRICE.

Independent variables	Towards accounting profit			
	β	***Std. Error***	***t*-test**	***p* value**
Quantity sold	0.539	0.0980	5.491	0.000
Selling price	0.350	0.0937	3.737	0.0003
Constamt	0.461	0.1463	3.150	0.0020
R^2	0.807			
Std. Error	0.394			

Note: Results: Accounting profit= 0.461 + 0.539*Quantity Sold +0.35*Selling price

Hypothesis 3: The ordinary least squares linear regression analysis has been applied for the dependent variable of accounting profit and the only independent variable of cost. The results reveal that there is a significant correlation between accounting profit and cost (R^2= 0.65; p-value>0.001; β = 0.84, *t* = 16.165, p = 0.00). In reality, the relation between cost and accounting profit should be negative because a reduction in costs increases accounting profit. However, in this study, the relation between the accounting profit of physical markets and costs of digital markets is positive. This occurred because the costs of digital markets may not be large compared with the costs of physical stores. For that reason, it seems that there might be less influence on the accounting profit of physical markets. Also, this may because in each country, the costs of digital market can be changed due to the platform that the retailer customizes to market their products or goods. This result occurred because in Kurdistan, Iraq, retailers use free online platforms such as "Facebook, Instagram, Snapchat, TikTok, etc." that are available for everyone, rather than global websites and applications or more expensive tools to market their goods; therefore, using free platforms means that the costs of digital markets would not have a significant impact on the accounting profit of physical markets. Accordingly, due to the results of ANOVA and ordinary least squares, hypothesis 3 will be accepted, as indicated in Table VII.

TABLE VII
RESULTS OF THE ORDINARY LEAST SQUARES LINEAR REGRESSIONS BETWEEN THE DEPENDENT VARIABLE ACCOUNTING PROFIT AND THE INDEPENDENT VARIABLE OF COST

Independent variables	Towards accounting profit			
	β	***Std. Error***	***t*-test**	***p* value**
Cost	0.845	0.0522	16.16	0.0000
Constant	0.556	0.2103	2.658	0.0088
R^2	0.651			
Std. Error	0.528			

Note: Results: Accounting profit= 0.556 + 0.845*Cost

Hypothesis 4: The most obvious finding to emerge from this study is how the changing behaviour of customers, from physical markets to digital markets, impacts the accounting profit of physical markets. As has been revealed, there is a significant relation between changing behaviour and accounting profit (R^2= 0.752; p-value>0.001; β = 0.840, t = 14.502, p = 0.000). Consequently, hypothesis 4 is accepted, as Table VIII demonstrates. The results of this study tend to support Chen and Hitt (2001) and Hassanein and Head (2007) who found that online shopping is perceived as being easier, more useful, and pleasurable. It is presented in Table VIII.

TABLE VIII
RESULTS OF THE ORDINARY LEAST SQUARES LINEAR REGRESSIONS BETWEEN DEPENDENT VARIABLE ACCOUNTING PROFIT AND THE INDEPENDENT VARIABLE OF CHANGING BEHAVIOUR.

Independent variables	Towards accounting profit			
	β	***Std. Error***	***t*-test**	***p* value**
Changing Behaviour	0.840	0.041	20.65	0.0000
Constant	0.604	0.163	3.701	0.0003
R^2	0.752			
Std. Error	0.444			

Note: Results: Accounting profit= 0.604 + 0.840*Changing behaviour

VI. RECOMMENDATION FOR FURTHER RESEARCH:

The findings of this study have several significant

implications for practice. The research has explored many major factors that should be realized during business life.

1. This is a new issue in the Kurdistan region of Iraq; therefore, this research strongly suggests that adapting digital market with physical markets can increase accounting profit according to the result of this study.

2. The research selected a sample; all disclosed data were accurately collected and analysed. However, since digital market is a new phenomenon, there might be some bias in some points. Consequently, this study will recommend further research on this area with different samples by viewing at different business sectors.

3. Using several samples from many countries or different cities in Iraq will make sense if the results of other research have been compared between two different countries or more.

4. It can be suggested that this research can be expanded by considering other factors, such as, the role of digital market in terms of maximizing or minimizing the physical markets' taxes and risk. This information can be used to develop targeted interventions aimed at business life.

VII. CONCLUSION:

Overall, these findings suggest a role of adapting digital markets in promoting the accounting profit of physical markets. The research has reached the following:

1- From the statistical findings of this study, it has found that there is a linear correlation between each pair of variables, dependent variable of accounting profit and each independent variables of quantity sold, selling price, cost and changing behaviour. This means that the assumption of this study has selected accurate variables.

2- There is a positive and significant impact on accounting profit of physical market as a result of digital market adapting, which can promote sale revenue of physical market. Consequently, the digital market has played a vital role for growing quantity sold. Moreover, it has provided a reasonable selling price that customers give boundless attention to digital market, and it could motivate financial transaction to accrue. Likewise, physical stores can promote their products through digital market.

3- Another significant finding of this research was the relation between accounting profit of physical and the cost of digital market. Interestingly, from the statistic test of this research has reached two different results. Therefore, according to ANOVA static test and ordinary least squares linear regressions, accounting profit of physical market has been affected by the cost of digital market and it cause of accounting profit reduction. This result definitely could be true for the retailers when they have special platform channel because operating of the platform is not easy, and it take many hidden costs. On the other hand, according to the results of the multiple linear regressions, the costs of digital markets would not have a significant impact on the accounting profit of physical markets. This result probably could be true especially for retailers that use free platforms such as "Facebook, Instagram, Snapchat, TikTok, etc." especially nowadays it becomes very popular in Kurdistan region, in this case, retailers do not pay any costs for adapting digital market.

4- The changing in behaviour of customers from physical markets to digital markets, impacts the accounting profit of physical markets. From the demonstrated result accounting profit of physical market can be negatively affected by digital market if the retailer is only concentrated on physical market, this is due to digital market which is more preferred by customers and at this point accounting profit tends to decrease as a result of that retailer might lose their market. On the other hand, there can be positive affect if the retailer combines digital market to physical market at this time both markets tend to work together even the behaviour of customers have changed because retailer mostly could grow its accounting profit from digital market instead of physical market.

5- The overall model of this study was statistically significant, which means that there is a positive impact of digital market on the accounting profit of physical market. This indicates that financial position of retail sales could be improved by adapting digital market to physical market. Finally, it can be said that digital market can support physical markets in many dimensions.

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