

The Impact of Digital Literacy on Algerian Consumers' Adoption of Online Shopping: An Empirical Study with S.E.M Approach

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Abstract:

This research aimed at developing new knowledge to better understand the dimensions of digital literacy that have impact on the consumers' adoption of online shopping. Data from an online survey of (217) Algerian online consumers was used to test the research model using S.E.M. The main findings showed that the level of both DL and online shopping was high. Also it confirmed the positive impact of DL on the adoption of online shopping, which highlights the importance of enhancing DL among consumers. Based on the findings, the study recommends that organizations should adopt strategies to enhance consumers' digital skills, in order to support the shift towards online shopping.

Key Words : *Digital literacy (DL) – technical e-skills – informational e-skills – online shopping (OS).*

JEL Classification: *M31.*

1. Introduction

With the rise of the internet and the spread of smartphones, numerical communication has become an integral part of daily life, providing unprecedented opportunities for accessing information, communication, and conducting transactions. However, this rapid transformation has revealed a numerical divide among individuals and communities regarding their ability to effectively and safely use these technological tools. In this context, the concept of digital literacy (DL) has emerged as an essential necessity in this era. It refers to enabling individuals to use numerical technology and the internet efficiently and consciously, which includes mechanisms for information search, using various applications, and dealing with risks related to privacy and cybersecurity. This concept is very important for empowering individuals to engage in the 21st century, as digital literacy has become a fundamental requirement to fully benefit from technological applications, including OS. Literature indicates that the term DL encompasses the ability to use digital tools, critically evaluate information, and communicate in numerical environments safely and effectively. These skills are considered essential elements that enable individuals to actively participate in new media age and enhance their ability to adopt e-commerce services, which have witnessed significant growth in recent decades. Research suggests that individuals with higher media skills are more likely to engage in online transactions, navigate e-commerce platforms with ease, and effectively use media tools to search for and compare products.

Today, OS is the most visible and rapid aspect of 21st century globally probably driven by the COVID-19 crisis as well. Consumers around the world like it because it's simple to reach products and services, the number of things to see choosing from, and how much time effort it save. In the end, this way of buying is kind of dependent on how digitally literate people are. Good e-skills encourage a feeling of empowerment and trust which go a long way in increasing online purchase. Those who possed the e-skills can assess e-commerce sites, compare prices and monitor the protection of financial transactions. They are also better able at surmounting technology-obstacles and as a result that enhances the overall OS experience. Further, e-skills empower customers to take a better decisions, autonomously use online security features and protect themselves from potential online transaction risks.

Furthermore, the lack of e-skills can present a major barrier to using e-commerce platforms, especially in developing countries. The lack of media awareness leads to lower consumer trust, increased concerns about privacy, and information security, which hinders the growth of e-commerce and exacerbates the computer literacy divide, marked by differences in digital skill levels among demographic groups. This highlights the importance of addressing DL as a means of promoting inclusive and equitable participation in e-commerce. Therefore, the inderstand of the role of e-skills in the internet purchasing process is crucial for businesses and policymakers to develop interventions that promote media knowledge and bridge existing gaps, ensuring that a wide range of consumers can fully benefit from the opportunities provided by e-commerce platforms (Stankov, 2023, P. 190).

Research Problem :

In the age 4th revolution, with individuals increasingly relying on numerical tools in various aspects of life, e-purchasing has become a central component of this age. However, there

remains. However, there is still variation in the levels of consumer embracing of this method, which may be linked to their DL levels. So this led to the development of this research question:

Does the level of DL influence consumers' decisions to embrace OS?

Study Questions and Hypotheses: To address the research problem, we must answer the following sub-questions:

- ✓ What is the level of DL among the study sample individuals?
- ✓ To what extent do individuals in the study sample embrace OS?

The main hypothesis is:

- ✓ DL skills, including technical and informational skills, enhance individuals' embracing of OS.

Study Significance:

The current study is significant because it clarifies the connection between consumer behaviors in the media era and DL, which lays the groundwork for comprehending the difficulties in growing e-commerce and e-buying. Its conclusions aid in identifying gaps that can be filled by education or awareness campaigns aimed at improving consumers' media literacy. Additionally, it gives decision-makers in businesses—particularly those involved in e-marketing and e-commerce—insights on how to create strategies that will draw in larger client categories. Lastly, the study's findings may increase the use of purchasing by internet, which supports investment in the creation of e-commerce platforms and helps the numerical economy flourish.

Study Purpose:

The main purpose of this study is to explore and develop a deeper understanding of the relationship between DL and consumer embracing of e-purchasing. From practical perspective, this study would give practical recommendations to enhance numerical competence and increase the use of e-commerce platforms, which have significant growth in recent years in Algeria following the COVID-19 crisis.

2. Conceptual Framework of the Study:

2.1 Digital Literacy:

The concept of DL emerged with the advancement of ICT, introducing the current generation to the world of new literacy. Paul Gilster introduced the term "digital literacy" in the late 1990s, specifically in 1997 (Nazzal, Thoyib, Zain, & Sabil Hussein, 2022, p. 2419). This new literacy has an impact on various behavioral variables of individuals, including learning, adopting modern technologies, and consumer behavior.

When internet users found the research for product information easy, this influenced them in many ways, notably economically. Consumers now prefer numerical advancements that have changed their behavior, as these technologies are user-friendly for conducting online transactions. Understanding the concept of DL is crucial for easily finding product information (Fitri, Herawan, & Febianti, 2022). Therefore, this new literacy has become more important and productive in today's numerical world (Amin, Abid Malik, & Akkaya, 2021, p. 26).

2.1.1 Digital literacy definition: In the context of the 21st century, the concept of "digital literacy" has been widely used with varying definitions (Amin, Abid Malik, & Akkaya, 2021, p. 26). According to (Umboh & Aryanto, 2023, p. 97), It encompasses various concepts, including interaction with the internet and e-learning platforms. A table with examples of definitions pertaining to DL is shown.

Table 1. DL definitions

Author(s) , year	Definition
(Greene, Yu, & Copeland, 2014)	The concept refers to the cognitive processes individuals engage in when using multimedia computer information. These processes include locating information on the internet, understanding it, examining it, and integrating it.
(García-Martín & García-Sanchez, 2017)	It is understood as the development of competencies and skills necessary for the appropriate use of information and communication technology, and consequently, web tools.
(Jin, Reichert, Cagasan Jr, & de la Torre, 2020)	It stands for the capacity to use digital technologies to safely and appropriately access, manage, comprehend, integrate, communicate, assess, and generate information. This encompasses skills known by various names, such as media literacy, computer literacy, information and communication technology literacy, and information literacy.
(Fitri, Herawan, & Febianti, 2022, p. 86)	This concept refers to using technology to find information, using that information as input for thinking, and disseminating rich information. It also involves the ability to understand, analyze, and evaluate the various information received.
(Nazzal, Thoyib, Zain, & Sabil Hussein, 2022)	It describes people's capacity to locate, assess, control, and embrace new technologies. It calls for both technical and cognitive abilities to use media for marketing, communication, and online buying for goods and services..
(Widia Puro, Kussudyarsana, Sholahuddin, & Achmad, 2022)	It is closely associated with technical skills in accessing, gathering, understanding, and disseminating information.
(Ali, Raza, & Qazi, 2023)	It encompasses the ability to access information and locate it effectively online
(Avinç & Doğan, 2024)	This term denotes the ability to use digital technology for information access, comprehension, evaluation, creation, and communication.

Source: Prepared by the researcher based on the referenced sources

Based on the previous definitions, the new literacy encompasses several aspects, including:

- ✓ The ability to appropriately use ICT.
- ✓ The ability to gather information from various and reliable sources.
- ✓ The ability to read and understand non-linear and dynamic information.
- ✓ The ability to evaluate information critically, including assessing the credibility and completeness of online sources.
- ✓ The ability to create and disseminate information across various media.

In the field of shopping, DL means that consumers know how to use information media carefully and accurately, evaluate their content, and use them according to their needs, especially concerning consumption (Fitri, Herawan, & Febianti, 2022, p. 86)

2.1.2 DL Dimensions: It encompasses two main dimensions (Tazijan, Aboo Bakar, & Mohd Ramli, 2022, p. 03):

- ✓ **Technical E-Skills:** These are the fundamental skills individuals need to acquire. With the continuous advancements in technology, these technical skills have become essential for keeping up with modern technology.
- ✓ **Informational E-Skills:** Such as searching for information, evaluating it, and organizing it in a numerical environment are important. Information management is characterized by its ability to clearly identify information needs, locate numerical information, and effectively and efficiently select it.

2.2 Online Shopping:

2.2.1 Definition of Online Shopping: Nowadays, due to the widespread Internet and enormous technological advancement, purchasing through Internet is more integrated into an individual's life (Nazal, Thoyib, Zain, & Sabil Hussein, 2022, p. 2420). This type of buying is defined as the process of purchasing goods directly from a seller without any intermediary, or it can be referred to as the activity of buying and selling goods over the internet. It deals provide the customer with a variety of products and services, where in customers can compare them with deals of other intermediaries also and choose one of the best deals for them (Daroch, Nagrath, & Gupta, 2021, p. 39). It is also defined as the process of buying and selling goods, services, and information online. These transactions are facilitated by electronic systems to boost the demand for goods, services, and information. Communication between suppliers, businesses, stores, and consumers occurs digitally, and payments for products and services can be made electronically or in cash upon delivery (الزيادات، 2019، صفحة 121). Purchase via internet is a type of e-commerce that allows consumers to purchase goods and services directly from producers through the internet. It involves the process or commercial activities where a consumer visits the producer's website, selects a product or service, and chooses a payment method, all conducted online (أحمد شلبي و (قبلان العميري، 2023، صفحة 103). According to (السيد إبراهيم، 2019، صفحة 325) It also refers to the process of gathering information and data about goods and services to provide consumers with the necessary details for making informed purchasing decisions. This is achieved by visiting various e-commerce websites, exploring the products and services they offer, and obtaining detailed information about their types, specifications, and prices.

2.2.2 Benefits and Drawbacks of OS:

The potential benefits of purchasing via internet for consumers include (Zhou, Dai, & Zhang, 2007):

- ✓ Convenience.
- ✓ A wide variety of choices.
- ✓ Lower prices.
- ✓ Authentic services.
- ✓ Personalized attention.
- ✓ Easy access to information.

Despite these advantages, this type of buying is associated with several drawbacks, as highlighted by (الزيادات، 2019، صفحة 123):

- ✓ Information security and privacy: Many consumers are reluctant to engage in OS due to concerns about the confidentiality of their personal information, as the process requires them to provide sensitive data.
- ✓ Rapid technological advancements: A significant number of consumers find it challenging to keep up with technological developments.
- ✓ Low trust levels: There remains a lack of trust in online payment methods, particularly credit card transactions. Many consumers prefer cash-on-delivery as a safer alternative.
- ✓ Lack of access to electronic devices or reliable internet connections: This includes slow internet speeds or the absence of connectivity altogether.
- ✓ Shipping and delivery costs: Additional charges can discourage online purchases.
- ✓ Limited knowledge of online transactions: Many consumers lack the skills needed to conduct e-buying efficiently.
- ✓ Loss of the buying experience: For many persons, traditional buying is considered an enjoyable outing and social activity.
- ✓ Inability to inspect products before purchasing: The inability to physically view or test the item before buying is a significant concern for many consumers.

2.2.3 Utility-driven vs. Enjoyment-driven shopping: Goal-driven buyer, utilitarian's focus their e-purchases on pragmatic requirements linked to certain goals. (Kim & Shim, 2002). Hedonistic consumers, on the other hand, shop for experiences, where the goal goes beyond acquiring knowledge to encompass seeking pleasure, excitement, fantasy, and enjoyable events (Monuwe et al., 2004). Because utilitarian and hedonistic buyers have different motivations and personalities, they approach and interact with websites in different ways (Delafrooz, Hj. Paim, & Khatibi, 2009, p. 168).

2.2.4 Types of Electronic Shoppers: According to (Zhou, Dai, & Zhang, 2007, p. 48), they can be categorized into several distinct groups based on their buying tendencies:

- ✓ Economic consumers: are price-oriented consumers who focus on buying products at the lowest price or obtaining the best value for their money.
- ✓ Personalizing consumers: are consumers who prioritize and value their relationships with store personnel.
- ✓ Ethical consumers: are shoppers who demonstrate loyalty to specific stores or brands.
- ✓ Apathetic consumers: are inactive consumers who show little engagement in the buying process.
- ✓ Recreational consumers: are individuals who enjoy the experience of buying itself, regardless of whether they make a purchase, often driven by personal motivations like self-satisfaction or exploring new trends.
- ✓ Convenience-Oriented consumers: are consumers who place importance on factors such as time, effort, and ease when shopping.
- ✓ Highly-Involved consumers: are shoppers who are actively engaged in the buying process, contrasting with apathetic shoppers.
- ✓ Psych-Socializing (or Community-Oriented) consumers: are consumers who shop for social reasons, such as enjoying social interactions outside the home or the excitement of negotiating and bargaining.

3. Methods:

3.1 Study Population and Sample:

The current study aims to analyze how individuals (as the unit of analysis) perceive the integration process into OS and their level of DL. In this context, The targeted population was Algerian internet users, who were the subject of this research. Data was collected through an online questionnaire, which was distributed to participants via Facebook and sent through email. Accordingly, the research sample was a voluntary sample, a type of random sampling where participation is based on the voluntary responses of participants.

The minimum sample size was determined using the tenfold rule of thumb, ensuring that the sample size exceeded (100) to validate that the variance remained within acceptable limits. Therefore, the minimum sample size required for the current study is (200) (i.e., 10×20), as the questionnaire contained (20) items. A total of (217) questionnaires were retrieved, which meets the acceptance criteria. The following table summarizes the characteristics of the study sample:

Table 2. Sample characteristics

Character		N	%
Age	>28 years	68	31.3
	[28-44[	113	52.1
	<44 years	36	16.6
Gender	Male	133	61.3
	Female	84	38.7
Education	Secondary and less	08	3.7
	University	209	96.3
Own an electronic payment card	Yes	160	73.7
	No	57	26.3
Relying on intermediaries for online purchasing	Yes	88	59.4
	No	129	40.6

Source: Prepared by the researcher based on SPSS outputs

3.2 Statistical tools: To analyze the field study data, reliance was placed on:

3.2.1 Statistical Package of Social Sciences (SPSS): Version No. 21. Appropriate statistical methods were used as follows: Mean, Standard Deviation, and Coefficient of Variation, where the level of DL and the level of OS adoption were determined by five levels.

3.2.2 IBM SPSS Amos v24.0: Appropriate statistical techniques were used, including model fit indices and Coefficient of Determination (R^2).

3.3 Data Collection Tool:

3.3.1 Development of the Data Collection Tool: A questionnaire was developed in a systematic manner, starting from a literature analysis aimed at identifying appropriate measurement criteria, which were adopted and modified when necessary according to the specific research context. The variables used were measured using 5-point Likert scale. A datasheet form contained 20 statements distributed over two (02) axes and for (04) dimensions.

3.3.2 Validity and Reliability of the Data Collection Tool: To assess the validity and reliability of the data collection tool, Cronbach's alpha coefficient (α) was calculated for the research tool and its dimensions, with the results as follows:

Table 3. Cronbach's Alpha Coefficients for the Research Tool and Its Dimensions

Dimension	Items	Cronbach's Alpha (α) Value
Digital Technical Skills	07	0.802
Digital Information Skills	07	0.801
DL		0.874
Current adoption of OS	03	0.854
Intention of increasing OS in the future	03	0.882
OS adoption		0.908
Research Tool		0.879

Source: Prepared by the researcher based on SPSS outputs

A Confirmatory Factor Analysis (CFA) was also conducted using IBM SPSS Amos v24.0 to assess the validity of the proposed model, as shown in the following table:

Table 4. Model Fit Indices of Measurement model

Indices	cmin/df	RMSEA	SRMR	CFI	TLI
Model GOF	1.742	0.059	0.0551	0.935	0.924
Results	Accepted	Accepted	Accepted	Accepted	Accepted

Source: Prepared by the researcher based on SPSS (AMOS) outputs

The results in the table (03) indicate that the value of Cronbach's alpha (α) of all dimensions is deemed acceptable at a level of acceptance (>0.6). This indicates that the measurements exhibit satisfactory internal consistency reliability.

All model fit indices of measurement model were at an acceptable level after a single adjustment, which involved correlating the measurement errors of items (10) and (11). Consequently, the structural model demonstrated a better fit to the data compared to alternative models. Thus, the test confirmed that the proposed measurement model exhibits acceptable construct validity.

4. Results and Discussion:

The research results were classified according to the sequence of the hypothesis and the questions contained therein, as follows:

4.1 Results related to the answer of the first question:

The first question of this study was as follows: *What is the level of DL among the individuals in the study sample?*

According to the above discussion, DL refers to the extent to which the study participants possess the essential skills needed in the numeric world, including technical e-skills and informational e-skills. Therefore, the collected data sheds light on the extent to which the study sample possesses these skills, ultimately determining their level of DL. According to the data, the level of DL among the study sample was high, with an arithmetic mean of (3.7) on a 5-point Likert scale. The statistics in the following table uncover these results:

Table 5. The Level of DL among Study Participants

Dimension	Mean	Standard Deviation	Coefficient of Variation	Degree
Technical E-Skills	3.62	0.66	18.23	High
Informational E-Skills	3.78	0.60	15.87	High
DL	3.70	0.57	15.41	High

Source: Prepared by the researcher based on SPSS outputs

The results of the previous table indicate that both dimensions—technical e-skills and informational e-skills—are at high levels, reflecting a generally good level of numerical competence among the study participants. This is further supported by the overall DL level, which was recorded as high.

The arithmetic mean scores for both dimensions indicate a high level, with moderate to low variance in participants' responses. The greatest variance is observed in technical e-skills, with a coefficient of variation of (18.23%), suggesting that some individuals may need to improve their technical skills. On the other hand, informational e-skills show a high level with greater consistency, evidenced by a lower coefficient of variation at (15.87%), indicating good alignment among participants in this area.

As for the overall DL level, it exhibits the lowest degree of variability, with a coefficient of variation of (15.41%), suggesting a relatively stable and shared understanding of basic e-skills among participants.

4.2 The results pertain to answering the second question:

The second research question was: *What is the level of adoption of OS among the individuals in the study sample?*

According to the discussion in the conceptual framework on e-purchasing, it refers to consumers making purchases via the internet. Therefore, the collected data will shed light on the extent to which the study participants currently adopt purchasing via internet and their readiness to increase their reliance on it in the future. The following is a table displaying all the results related to that:

Table 6. The Level of OS embracing among Study Participants

Dimension	Mean	Standard Deviation	Coefficient of Variation	Degree
Current embracing of OS	3.11	0.98	31.51	Medium
Intention of increasing OS in the future	3.48	0.99	28.44	High
OS embracing	3.29	0.91	27.66	High

Source: Prepared by the researcher based on SPSS outputs

The table illustrates the level of OS embracing based on two main dimensions: current adoption level and intention to increase reliance on it in the future, in addition to the overall adoption level.

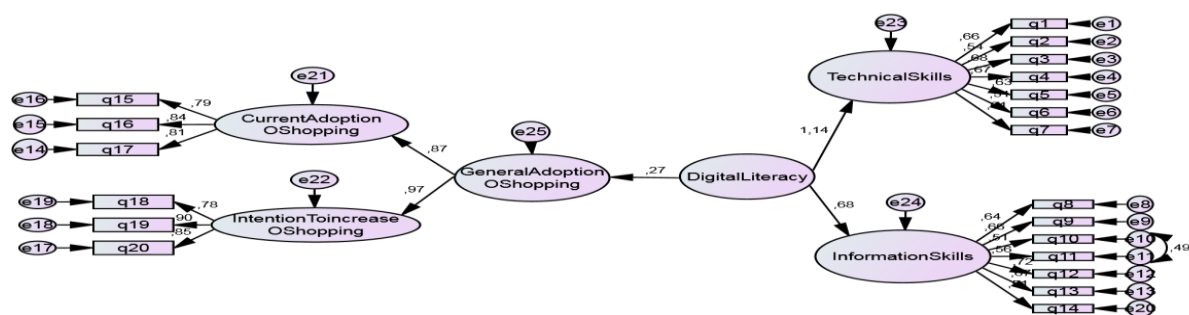
As can be seen from the results in the table above, the current level of OS adoption was average, as it recorded an arithmetic mean of (3.1), with considerable variance in participants' responses with a coefficient of variation of (31.51%). This confirms a notable disparity in individuals' experiences with OS. This variation may suggest challenges related to trust or technical knowledge. On the other hand, the intention to increase reliance on OS in the future shows a higher arithmetic mean score of (3.48), with relatively lower variability with a coefficient of variation of (28.44%). This suggests a positive trend toward increased OS adoption in the future. As for the overall level of OS embracing, the data indicates a relatively high arithmetic mean score of (3.2), with the lowest level of variability with a coefficient of variation of (27.66%). This reflects a general consensus among individuals regarding the acceptance of e-purchasing as a buying method.

4.3 Results Related to Testing the Study Hypothesis:

The study hypothesis stated the following: *DL skills, including technical and informational skills, enhance individuals' embracing of OS.*

For the purpose of verifying the validity of this hypothesis, the conformity of the structural model with the data related to the study sample using IBM SPSS Amos v24.0. All the results related to this were shown below:

Figure 1. the impact of DL (technical and informational skills) on the adoption of OS model



Source: SPSS AMOS program

The following table shows the results of model fit indices that were relied upon to estimate the fit of the structural model of the study model:

Table 7. Model fit indices

Indices	Code	Acceptance level	Model fit value	Conclusion
Chi-square ratio to degrees of freedom	Cmin/df	The theoretical value should be less than 3.	1.604	Acceptable
Root Mean Square Error of Approximation	RMSEA	The theoretical value should be less than 0.08, with a significance level greater than 0.05	0.053 with a significance level of 0.334	Acceptable
Standardized Root Mean Square Residual	SRMR	The theoretical value should be less than 0.1.	0.0516	Acceptable
Comparative Fit Index	CFI	The acceptance level is high if greater than 0.9	0.945	Acceptable
Tucker-Lewis Index	TLI	The acceptance level is high if greater than 0.9.	0.937	Acceptable

Source: Prepared by the researcher based on SPSS (AMOS) outputs

The indices mentioned in the previous table were relied upon to ensure the quality of matching the study model with the field data according to what was suggested by Hu and Bentle, as they are among the most effective indicators that have proven effective (2012, تيغزة).

It is clear from the previous table that the model fit indices of structural imply a good overall model fit, as the ratio of Chi-square to the Degree of Freedom (CMIN/df) was (1.604) in the acceptance range between 1 as a MIN value and 3 as a MAX_value. The root mean square error of approximation (RMSEA) was estimated at (0.053), which is much less than (0.08), indicating that the model therefore has a good fit. As for the Standardized Root Mean Square Residual (SRMR), its value was estimated at (0.0516), which is also within the acceptable range, while the model recorded values of (0.945) and (0.937) respectively for the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI), which are two values that exceed the acceptance limit, estimated at a level of (0.9). Hence, the result in the end indicates that the model matches the data of the study sample, and accordingly this means that it represents the best model in explaining the data of the current study.

Based on the fit indices of the structural model used, and since it achieved a good fit, it can be relied upon to prove or disprove the validity of the study hypothesis.

Figure (1) further summarizes the results related to the hypothesized structural relationships. It highlights that the path coefficient, which represents the effect of DL on the embracing of e-purchasing, is statistically significant at (0.029). Therefore, this result proves the main research hypothesis regarding the positive impact of DL on OS adoption. The path coefficient for the independent variable (0.271) also indicates that it has correlation with increasing the embracing of buying through internet. This suggests that DL plays a crucial role in fostering engagement with e-commerce platforms.

The previous discussion reveals an interesting result. Although the DL was high, their impact on the embracing of OS appears insufficient, contrary to the initially assumed trend. This result can

be attributed partially to the measured DL skills are general competencies rather than specific skills directly related to e-commerce platforms and applications. Also, it can be attributed to the individual preferences and perceptions. Some individual prefers traditional shopping methods or have technological inclinations that make them less likely to adopt e-purchasing. Likewise; they may perceive this type of buying as less essential or less trustworthy, as it leads to a decrease adoption rates—even among those with high DL skills.

5. Conclusion:

Based on the results of the field study, it was concluded that the level of consumers' DL and its dimensions was high, and the level of OS embracing by consumers was also high. The results therefore prove the hypothesis put forward. They indicate that the DL does lead to increase the e-purchasing adoption, which can be confirmed that DL plays a crucial role in enhancing consumers' online OS embracing. The study's findings can be summarized as follows:

- ✓ The level of consumers' DL in the study sample was high. The results indicated that their possession of both technical e-skills and informational e-skills was at a high level. This may be attributed to the university level education of the most of sample study individuals.
- ✓ The findings also showed that the overall level of buying through internet was high. While the current adoption level of it was moderate, the intention of increasing it in the future was significantly high, which reflects a gap between actual behavior and future intent. This variance can be explicate by the influence of many current factors such as low e-trust in electronic transactions, limited electronic infrastructure, and the negative past experiences. Convein in contrast, the high level of the intention of increasing OS in the future will inhanve the growing of technological awareness and the anticipated development of e-commerce platforms.
- ✓ Technical e-skills have influenced DL, with a coefficient of (1.14), which indicate that the developing technical skills is a key factor to enhance it. Also, the informational e-skills have a notable impact on this new literacy, with a coefficient of (0.68) which reflects the importance of the ability to manage and analyze numerical information to shap it.
- ✓ The general embracing of OS is significantly influenced by both of its components. The impact coefficient of the current adoption of it was measured at (0.87), while the impact coefficient of the intention of increasing it in the future was very strong at (0.97); that future intent is the most influential factor.
- ✓ Finally, DL positively affects overall OS adoption with effect coefficient of (0.27), which confirms the importance of DL in enhancing consumers' adoption of e-purchasing.

In light of the results of the field study, it is important for the organizations in order to improve consumers' media literacy and enhance the customer experience by:

- ✓ Organizing awareness initiatives and training courses to help customers learn the basics of OS, creating secure accounts, making reliable purchases, and managing electronic payments.
- ✓ Provide proactive support by providing trained technical support team that helps customers in resolving technical problems while using online platforms.
- ✓ Creating easy user interfaces that reduce the need for complex technical skills.

- ✓ Collaborating with educational institutions to promote DL among younger generations, and creating a more digitally prepared generation.

In conclusion, this study highlights the importance of DL as a driver in enhancing consumers' embracing of internet buying. Through awareness initiatives, training programs, proactive support, and an easy user interface, organizations can build a more numerical literate customer base, which contributes to business growth and sustainability in the 4th revolution age.

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