The Impact of IT Intensity and Isomorphic Forces on Web-Based Accounting Disclosure: Evidence from Egypt

تأثير كثافة تكنولوجيا المعلومات والقوى المتماثلة على الإفصاح المحاسبي عبر الإنترنت: دليل من مصر

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Abstract

This study examines whether IT intensity and isomorphic forces affect Web-based accounting disclosure in an emerging market, namely Egypt. It employs an index to measure the total score of Web-based accounting disclosure as well as the scores of its two dimensions: presentation (indicating the technological features and usability of websites) and content (reflecting the disclosure level of financial and non-financial information). It uses a sample of 78 companies listed on the Egyptian Exchange over the period 2021-2023, corresponding to 234 firm-year observations. The findings reveal that IT intensity is associated with higher scores of both Web-based accounting disclosure and its two dimensions. In addition, the findings show significant relationships between different isomorphic forces and Web-based accounting

disclosure. In particular, there is a significant negative relationship between governmental ownership (reflecting coercive isomorphism) and Web-based accounting disclosure. Also, there is a significant positive relationship between board interlock (a proxy for mimetic isomorphism) and Web-based accounting disclosure. Finally, there is a significant positive relationship between professionalization (a proxy for normative isomorphism) and Web-based accounting disclosure. This study would help in understanding the existing Web-based disclosure practices and provide valuable insights for regulators in further enhancing the standardization and transparency of Web-based disclosure.

KeywordsWeb-Based Accounting Disclosure, IT Intensity, Coercive Isomorphism, Mimetic Isomorphism, Normative Isomorphism.

الملخص

تهدف هذه الدراسة إلى قياس كثافة تكنولوجيا المعلومات والقوى المتماثلة على الإفصاح المحاسبي عبر الإنترنت في مصر، إضافة إلى بُعْديه: بُعْد العرض (سهولة الاستخدام وخصائص المواقع)، وبُعد المحتوى (الذي يعكس مستوى الإفصاح عن المعلومات المالية وغير المالية). شملت العينة 78 شركة مدرجة بالبورصة المصرية خلال الفترة 2021–2023م، بإجمالي 234 مشاهدة.

أظهرت النتائج بأن كثافة تكنولوجيا المعلومات تؤثر تأثيراً ايجابياً معنوياً على الإفصاح المحاسبي عبر الإنترنت وبعديه. كما اتضح أن هناك تأثيراً معنوياً للقوى المتماثلة المختلفة والإفصاح المحاسبي عبر الإنترنت ببعديه .وعلى وجه الخصوص، هناك علاقة سلبية بين الملكية الحكومية (التماثل القسري) ومستوى الإفصاح

المحاسبي عبر الإنترنت، في حين توجد علاقة ايجابية بين تعدد عضوية مجلس الإدارة (تماثل المحاكاة) ومستوى الإفصاح المحاسبي عبر الإنترنت، بالإضافة إلى أنه توجد علاقة ايجابية بين الاحترافية (التماثل المعياري) و مستوى الإفصاح المحاسبي عبر الإنترنت، وإجمالًا فإن هذه الدراسة من شأنها أن تسهم نتائجها في تطوير سياسات الإفصاح المحاسبي ، خاصة في الأسواق الناشئة مثل مصر، كما ستوفر رؤى قيمة للجهات التنظيمية لدعم سبل الإفصاح عبر الإنترنت والتزامها بالدقة والشفافية.

الكلمات المفتاحية :الإفصاح المحاسبي عبرالإنترنت، وكثافة تكنولوجيا المعلومات، والتماثل القسري، وتماثل المحاكاة ، والتماثل المعياري.

1. Introduction

Disclosure of corporate information via the Internet has experienced dramatic growth worldwide (Ahmed et al., 2023). Disclosure is the process of delivering information by the reporting entity to the financial markets (Abdi et al., 2018). It aims to deliver useful information to all users to help them in making decisions (FASB, 2010; IASB, 2018). The Web is considered an appropriate platform for the disclosure of corporate information (Orens et al., 2010). Firms heavily rely on the Internet as a way to report timely information for a wide range of current and future investors (Abdi and Omri, 2020). Therefore, corporate Web-based disclosure refers to information that firms disclose via the Internet.

Corporate Web-based disclosure offers stakeholders easy and free access to any amount of information. It permits them to obtain any information regardless of their location (FASB, 2000;

Orens et al., 2010). It would eliminate boundaries, decrease costs of disseminating information, enhance information accessibility, and speed up information flow (Orens et al., 2010; Gesuele et al., 2017; Abdi and Omri, 2020). Consequently, it would lead to improved timeliness as it enables the reporting of updated information that is accessible at any time (Boubaker et al., 2012, Hasan and Islam, 2023).

This study first examines whether information technology (IT) intensity affect Web-based accounting disclosure. Effective Web-based disclosure practices do not take place in isolation from the organizational contexts. Increasing investments in IT might influence Web-based accounting disclosure. That is, as businesses make significant investments in advanced data management systems, analysis, and communication, the potential for enhanced transparency and accessibility of financial information grows significantly (Johnston and Zhang, 2018). This technological evolution would reshape how accounting data is collected, processed, and presented online, influencing the scope, timeliness, and reliability of disclosures (Dow et al., 2017). Although there are several studies on the impact of IT industry affiliation on Web-based accounting disclosure (e.g., Debreceny et al., 2002; Xiao et al., 2004; Aly et al., 2010; Boubaker et al., 2012; Arlaili and Rahmawati, 2023), little attention has been directed to addressing the influence of IT

intensity on the presentation and content dimensions of Web-based accounting disclosure.

In addition, using the institutional isomorphism theory developed by DiMaggio and Powell (1983), this study investigates the potential isomorphic forces affecting Web-based accounting disclosure in Egypt. Isomorphism refers to the socialization and homogenization process in which firms in similar positions encounter similar situations, and so they often have similar responses to these situations (Tuttle and Dillard, 2007; Bananuka, 2020; Carungu et al., 2021). In other words, it is the pressure process that forces management to behave like others facing the same circumstances and environmental conditions. Although market-based theories (such as agency theory and signaling theory) have dominated prior research to explain Web-based disclosure practices (Gesuele et al., 2017; Hasan and Islam, 2023; Ahnmed et al., 2023), they might not provide complete perceptions of the institutional setting that influences firms' practices. The institutional theory is founded on the notion that many organizational practices are frequently adopted and maintained in accordance with social forces for legitimacy more than with technical forces (Tuttle and Dillard, 2007; Posadas et al., 2023). That is, organizations adopt similar structures and procedures as a result of these forces (Hasan and Islam, 2023). Consequently, organizations might have a tendency to resemble or be isomorphic over time (Bananuka, 2020).

Firms continuously strive to preserve and increase their legitimacy by coping with forces in their institutional contexts that lead to isomorphism (Dimaggio and Powell, 1983). These forces can be divided into three forms: coercive, mimetic, and normative. Coercive forces represent pressures imposed by regulators and powerful stakeholders (Tuttle and Dillard, 2007; Carungu et al., 2021). Mimetic forces arise from firms' simulation practices of the most successful firm in the industry (Boolaky et al., 2020). Normative forces reflect the effects of norms and professional standards on organizational behaviors (Boolaky et al., 2020; Priyadarshanie et al., 2023).

Using a sample of 78 companies listed on the Egyptian Exchange over the period from 2021 to 2023 (234 firm-year observations), the results reveal that there is a significant positive relationship between IT intensity and Web-based accounting disclosure. This implies that firms with high IT intensity provide consumers more advanced technology that improves accounting information disclosure. In addition, the results show significant negative relationship between coercive isomorphism and Web-based accounting disclosure. These results are strongly consistent with the results of previous studies supporting the "hindering effect" of isomorphic forces. Governmental entities or owners might have private access to information and thus they exercise less pressure on firms to disclosure information via their websites. Moreover, Governmentally-owned firms might suffer

from agency conflicts arising from weaker monitoring role of governmental entities. Moreover, we find a significant positive relationship between mimetic isomorphism and Web-based accounting disclosure. Finally, we report a significant positive relationship between normative isomorphism and Web-based accounting disclosure. These results suggest that the positive impact of mimetic and normative isomorphism on accounting disclosure. This provides strong support for institutional isomorphism theory.

This study contributes to the literature on information systems and financial reporting in multiple ways. First, using a detailed content analysis of websites of Egyptian companies and a constructed measure of Web-based accounting disclosure, this study provides insights on the level, presentation and content of information provided by companies on their websites. In particular, this study shows that there are huge variations among companies in terms of Web-based accounting disclosure. These variations reflect the voluntary nature of Web-based disclosure in Egypt.

Second, extending prior studies showing a significant impact of IT intensity on Web-based accounting disclosure, this study reports a significant impact of IT intensity on both the total score of Web-based accounting disclosure as well as the scores of its two dimensions (presentation and content). Third, different form previous studies using the stakeholder theory, legitimacy theory, or capital need theory, this study employs the isomorphic

institutional theory in investigating the influence of isomorphic forces on Web-based disclosure. This would help explain how managers react to pressures or forces from numerous stakeholders, and how these forces shape Web-based disclosure. Moreover, this would help regulators recognize how isomorphic forces, particularly coercive forces, might influence firms' dissemination of information on websites.

The remaining of this study is organized as follows. Section 2 provides the theoretical background. Section 3 reviews the literature and develop the hypotheses. Section 4 outlines the research design including methods, measurement of variables, and empirical models. Section 5 provides the results. Finally, section 6 is research conclusions.

2. Theoretical Background

The early adoption of Web-based accounting disclosure could be explained in accordance with the economics-based theories. According to the **agency theory**, Web-based accounting disclosure would reduce information asymmetry by disseminating relevant information on a wider scale, which leads to decreasing agency costs (Orens et al., 2010; Boubaker et al., 2012; Gesuele et al, 2017; Ahmed et al., 2023). Signaling theory also provides explanations for using Web-based disclosure as it gives the impression that the firm benefits from the latest technologies for disclosure practices (Boubaker et al., 2012; Abdi and Omri, 2020). **The signaling theory** predicts that firms with

low performance might tend to keep a lower profile and limit access to accounting information and vice versa (Bananuka, 2020). When the disclosed information is more transparent and complete, information asymmetry is reduced, resulting in higher investor trust and confidence (Lemma et al., 2019; Wati et al., 2019; Abu Afifa and Saadeh, 2023).

Little attention has been directed to the institutional isomorphism in explaining Web-based accounting disclosure practices. DiMaggio and Powell (1983) point out that organizations are subject to external forces to share dispersed practices with others in the field, which ultimately result in becoming isomorphic with them. Institutional isomorphism is classified into three forms: coercive, mimetic, and normative isomorphism (DiMaggio and Powell, 1983). **Coercive isomorphism** results from formal and informal forces that are exerted by an overwhelming force in the society in which the organization is a member such as the government, legal obligations, or cultural expectations. It may take place through enforcing the change or making the change convinced (DiMaggio and Powell, 1983). Consequently, it may result from political and/or legitimacy drivers (Tuttle and Dillard, 2007; Bananuka, 2020; Carungu et al., 2021).

With respect to **mimetic isomorphism**, DiMaggio and Powel (1983) argue that organizations attempt to emulate the behavior of influential and successful organizations in society to

establish their legitimacy or react to greater uncertainty, such as the introduction of new technologies. Therefore, mimetic isomorphism can be considered a form of fashion or trend (Álvarez-Etxeberria et al., 2023).

Normative isomorphism mostly results from professionalization (DiMaggio and Powell, 1983). That is, members of an established profession who share its norms and cognitions are expected to follow the practices that are perceived as acceptable and normal within the profession. The effect of normative isomorphic forces may vary according to the firm culture, norms, beliefs, assumptions, and values of professionals that are reinforced and transmitted through socialization and training of professionals from generation to generation (Martínez-Ferrero and García-Sánchez, 2017; Álvarez-Etxeberria et al., 2023).

The three forms of isomorphic forces typically function concurrently, influencing how organizations react to changes in their environments (Maroun and Van, 2016). They, however, tend to arise from different conditions. The distinction between these forms of forces is always ambiguous and not clear since organizations are often subject to more than one form (Othman et al., 2011; Hersberger- Langloh et al., 2021).

3. Literature Review and Hypotheses Development

3.1. IT Intensity and Web-Based Accounting Disclosure

Firm expenditures on IT have grown over time, and this makes changes in the field of accounting (Johnston and Zhang,

2018). Moreover, the development of Internet infrastructure and usage worldwide has attracted the consideration of regulatory bodies, practitioners, and policymakers to espouse Internet diffusion and usage (Bananuka, 2020). Some argue that IT firms are likely to implement Web-based reporting to demonstrate that they are technology-leaders and experts in assimilating and using the Internet more easily than other companies (Debreceny et al., 2002; Xiao et al., 2004; Aly et al., 2010; Boubaker et al., 2012 Lihniash et al., 2020; Opanyi et al., 2023). These firms might offer users more advanced levels of innovative technology in a manner that enhances the availability and presentation of information. Further, in order to assist investors and other stakeholders in interpreting their earnings figures, high-tech firms may disclose additional non-financial information, as they are less informative than those of low-tech firms. (Kwon, 2002).

Consistent with the above-mentioned arguments, Debreceny et al., (2002), in their international study of companies in 22 countries, find that the level of technology of the firm (indicated by being the firm affiliated with specific industries including pharmaceutical, computers, electronics, and telecommunications) is positively related to Internet reporting. In particular, they find the level of technology is a significant determinant for the presentation dimension, and not the content dimension, of Internet reporting. Also, Xiao et al., (2004) reveal that Chinese firms in more high-tech industries disclose through

their websites more information than firms in other industries. In addition, they find that these firms have more extensive and elaborate presentation formats than firms in other industries.

Using a sample of large Egyptian companies, Aly et al., (2010) show that industrial type (communications and financial services) is an influential determinant of the amount and presentation formatting of information disclosed on companies' websites. Also, Boubaker et al. (2012) report that Internet corporate reporting by French-listed companies increase with firm size, audit firm size, ownership dispersion, and IT industry affiliation. Lihniash et al. (2020) report that technology factors positively affect Internet financial reporting in the Libyan banking sector. Further, using a sample of Indonesian companies, Arlaili and Rahmawati (2023) show that the amount of information disclosed on websites of high-tech companies is greater than that disclosed on websites of non-high-tech companies. The findings of these studies suggest that highly IT-intensive companies disclose more Web-based information than other companies, potentially to decrease investor uncertainty and perceived risk and help stakeholders make better decisions.

Some studies, however, report that IT intensity has no or negative impact on Internet Reporting. For instance, Homayoun and Abdul Rahman (2010) and Henchiri (2011) report that the industrial sector does not explain the variation in Web-based accounting disclosure level. Nicolò et al. (2021) show that high-

tech companies have no significant effect on both the extent and type of online intellectual capital disclosure. Moreover, Bollen et al. (2006) find that there is a significant negative impact of the level of technology within the company and the company's growth rate on Internet investor relations.

Although the above evidence regarding IT intensity focusing more on examining the industry affiliation of companies, it would be interesting to examine the impact of actual amounts of IT assets relative to total assets in companies on Web-based accounting disclosure. In addition, instead of addressing only the total level of Web-based disclosure, it is important to understand the impact of IT intensity on the two dimensions of Web-based accounting disclosure (i.e., presentation and content). Thus, this study examines the impact of IT intensity level, based on actual amounts of IT assets, on Web-based disclosure, considering both the presentation and content dimensions, in the Egyptian context. Accordingly, the first hypothesis is formulated as follows:

H1: There is a significant relationship between IT intensity and Web-based accounting disclosure.

3.2. Isomorphic Forces and Web-Based Accounting Disclosure

Several studies provide an understanding of the effects of company-specific characteristics (e.g., firm size, liquidity, profitability, audit firm size, and industry type) on Web-based

disclosure (e.g., Debreceny et al., 2002; Xiao et al., 2004; Bollen et al., 2006; Aly et al., 2010; Boubaker et al., 2012). Other studies examine the impact of corporate governance mechanisms (e.g., director independence, CEO duality, and audit committee attributes) on Web-based disclosure (e.g., Abdelsalam and Street, 2007; Bin-Ghanem and Ariff, 2016). Despite the large number of studies investigating the determinants of Web-based disclosure, these studies provide mixed and inconclusive results. Thus, there is still a need for more research on other determinants of Web-based disclosure, particularly in different institutional contexts.

There are few studies directly linking isomorphic forces with Web-based accounting disclosure. Prior studies examine the impact of isomorphic forces on voluntary disclosure (Nyahas et al., 2017; Carungu et al., 2021; Priyadarshanie et al., 2023), corporate social reasonability (CSR) disclosure level (Othman et al., 2011; Garcia-Sanchez et al., 2016; Shabana et al., 2017; Wukich et al., 2023; Posadas et al., 2023), tax reconciliation disclosure (Depoers and Jérôme, 2020), and integrated reporting (Putri Pertiwi et al., 2022). A few attempts, however, are made to identify how isomorphic forces affect Web-based accounting disclosure.

According to institutional isomorphism theory, **coercive isomorphism** results from pressures, whether formal or informal, exerted by other institutions upon which the firm is dependent or powerful stakeholders (DiMaggio and Powell, 1983). These pressures might lead to an increase in the level of Web-based

accounting disclosure to gain legitimacy in the eyes of social actors in the internal and external environments (Othman et al., 2011; Nyahas et al., 2017; Bananuka et al., 2019; Ahmed et al., 2023). **Mimetic isomorphic forces** result from general trends observed in the industry (AbuGhazaleh et al., 2012; Hasan and Islam, 2023). Firms may tend to imitate others to gain legitimacy and competitive advantage, especially under uncertain conditions (Posadas et al., 2023; Depoers and Jérôme, 2020). **Normative isomorphism** results from professionalism pressures that may influence firms' practices and lead to an increase in Web-based accounting disclosure (AbuGhazaleh et al., 2012; Ribeiro et al., 2016; Wukich et al., 2023; Depoers and Jérôme, 2020).

Previous studies provide evidence that there is a positive association between isomorphic forces and Web-based accounting disclosure. That is, isomorphic forces may encourage commitment, conformity, and standardization of Web-based disclosure practices, which will increase the quality and quantity of accounting information disclosed on companies' websites. For instance, AbuGhazaleh et al. (2012) indicate that corporate Internet reporting practices are affected by institutional pressures. These institutional pressures could be generated by coercive isomorphism pressures (e.g., government ownership), mimetic isomorphism pressures (e.g., industry type), and normative isomorphism pressures (e.g., institutional ownership). Also, but using a qualitative analysis, Bananuka (2020) and Priyadarshanie et al. (2023) show that

coercive, mimetic, and normative isomorphism are significant factors in Internet financial reporting.

In the same vein, using a sample of companies in Bangladesh, Hasan and Islam (2023) indicate that coercive isomorphic forces, proxied by foreign ownership and government ownership, have positive effects on corporate Internet reporting timeliness. They also report that both normative forces, resulting from cross-directorships, as well as mimetic forces, derived from industry membership, positively influence corporate Internet reporting timeliness. Moreover, Ahmed et al., (2023) find that the variation in reporting level is dependent on changing institutional factors over time (institutional ownership, family ownership, governmental ownership, and free float). Therefore, they suggest that coercive, normative, and mimetic isomorphism could explain the differences in Internet disclosure practices.

Other studies, however, show that isomorphic forces have no effect or even limit the quality, effectiveness, and differentiation of Web-based disclosure. For example, Lee and Blouin (2019) find that internal and external pressures have no significant impact on Web-based disclosure. Darus et al. (2013) reveal that the board interlock does not impose imitation forces on the dissemination of CSR information on corporates' websites. Kaya and Seebeck (2019), in their cross-country study, fail to find evidence that social legitimization pressures explain the extent of data dissemination via websites. Carungu et al.

(2021) show that the quality of reporting does not increase when moving from a voluntary to a mandatory basis, emphasizing the role played by mimetic, coercive, and normative isomorphism mechanisms on accounting and reporting practices.

Furthermore, different isomorphic forces might have different effects on Web-based disclosure. For instance, Joseph and Taplin (2012) show that while coercive isomorphism is most relevant to why councils are initially motivated to make sustainability disclosures by Malaysian local authority websites, normative, and mimetic isomorphism are most relevant to how councils improve these disclosures on websites. Also, Ribeiro et al. (2016) find that mimetic and normative isomorphism are significantly and positively related to online social responsibility disclosure by Portuguese municipalities. In contrast, they fail to find evidence to support the assertion that the level of online social responsibility disclosure is influenced by coercive isomorphism. Moreover, Bananuka et al. (2019) reveal that only coercive isomorphism, and not normative and mimetic isomorphism, is positively and significantly associated with Internet financial reporting.

Accordingly, the evidence on the impact of isomorphic forces on Internet disclosure is mixed. This might be due to the different institutional and regulatory contexts in different studies. That is, in developed countries with strong regulatory and institutional frameworks, normative and mimetic isomorphic

forces would influence and shape Web-based disclosure as firms tend to maintain legitimacy and conform to industry best practices (e.g., Ribeiro et al., 2016; Garcia-Sanchez et al., 2016; Posadas et al., 2023; Wukich et al., 2023). On the other hand, in developing countries, coercive isomorphism, arising from regulatory obligations, legal requirements, or pressures from powerful stakeholders, would be a dominant driver of Web-based disclosure (e.g., Othman et al., 2011; Nyahas et al., 2017; Bananuka et al., 2019).

Thus, it is not obvious how different forces of isomorphism might affect the different dimensions of Web-based accounting disclosure in a developing country like Egypt. The following hypotheses are formulated:

H2: There is a significant relationship between coercive isomorphic forces and Web-based accounting disclosure.

H3: There is a significant relationship between mimetic isomorphic forces and Web-based accounting disclosure.

H4: There is a significant relationship between normative isomorphic forces and Web-based accounting disclosure.

4. Research Design

In this section, we discuss data collection and sample selection process. We also explain the measurements of IT intensity, isomorphic forces, Web-based disclosure, and control

variables. Moreover, we present empirical models for testing research hypotheses.

4.1. Sample Selection and Data Collection

The population consists of all publicly-listed firms in the Egyptian Stock Exchange. We exclude banks and financial service firms as they have a unique nature of activities and are subject to different rules and regulations. To be included in the final sample, the firm must meet the following criteria: (1) it must have an active website - Firms with "under construction" websites are excluded; (2) it must have disclosed the amount of IT assets in its balance sheet or notes to financial statements; (3) it must have presented their financial statements in Egyptian pounds; and (4) it must have been listed on the Egyptian Exchange since 2021 as the sample covers a 3-year period from 2021 to 2023. The final sample consists of 78 firms, representing 16 industries and corresponding to 234 observations.

This study uses content analysis of companies' websites to assess the level of Web-based accounting disclosure. This assessment is conducted using an index (explained in detail in section 4.2). In order to complete this index, websites of companies were identified, gathered, and visited during January to March 2024. Then, websites were revisited during June to July 2024 for validity check and to record any changes in websites caused by the dynamic nature of the Internet. Financial and governance data are collected from annual financial statements and reports that are

obtained from several sources including Refinitiv Eikon, the Egyptian Exchange's official website (https://www.egx.com.eg/), firms' official websites, Mubasher's website and mobile application, and through searching the internet.

4.2. Measurement of variables

4.2.1. Independent Variables

4.2.1.1 IT Intensity

IT intensity is the first independent variable of interest. IT investment is the summation of the value of computer and peripheral equipment, systems, and software (Angst et al., 2014). In this study, IT intensity is measured by dividing the book value of all IT assets by total assets of the firm (Angst et al., 2014; Dow et al., 2017; Johnston and Zhang, 2018).

4.2.1.2 Isomorphic Forces

Isomorphic forces are divided into three forms: coercive, mimetic, and normative (DiMaggio and Powell, 1983). **Coercive isomorphic forces** are imposed by powerful stakeholders that the firm depends on in securing its resources (Tuttle and Dillard, 2007; Priyadarshanie et al., 2023). Thus, this study uses governmental ownership to proxy for coercive forces. Following prior studies (e.g., Othman et al., 2011; AbuGhazaleh et al., 2012; Depoers and Jérôme, 2020; Hasan and Islam, 2023), this study computes government ownership by dividing the number of shares owned by government institutions by the total number of outstanding shares.

Mimetic isomorphism is a process in which the reporting firm imitates other firms that are considered more successful (Hasan and Islam, 2023). In the context of corporate disclosure, previous studies have proposed that mimetic behavior can be determined by board interlock (Darus et al., 2013; Hasan and Islam, 2023). Thus, this study uses board interlock to proxy for mimetic isomorphic forces. Board interlock is measured as the percentage of the total number of directors with appointments on other boards to the total number of board members.

Normative isomorphism can be defined as the professionalization of norms that are used to define the conditions and methods of work through formal education (e.g. in universities), and the establishment and expansion of professional networks (Bananuka, 2020; Priyadarshanie et al., 2023). The existence of professionalism is anticipated to enhance better understanding of business operations, and this will increase the accounting disclosure to gain a competitive advantage and increase legitimacy (Depoers and Jérôme, 2020; Priyadarshanie et al., 2023). Thus, this study uses professionalism, an indicator variable, to proxy for normative isomorphic forces. Professionalism equals one if the CEO has an educational background in business, accounting, or finance or is associated with a professional accounting association, and 0 otherwise (Putri Pertiwi et al., 2022).

4.2.2. Dependent Variable: Web-Based Accounting Disclosure

This study constructs an index to assess Web-based disclosure practices. This index is guided by prior research (e.g., Debreceny et al., 2002; Xiao et al., 2004; Abdelsalam and Street, 2007; Aly et al., 2010; Orens et al., 2010; Abdi and Omri, 2020; Hasan and Islam, 2023; Ahmed et al., 2023). We include various practices of Web-based accounting disclosure in this index. Table 1 presents the constructed index, which is composed of 68 items reflecting two dimensions of Web-based disclosure; presentation and content. The higher the total score of the index, the higher is the level of Internet disclosure. The total score of the index is divided into two sub-scores. First, the score of the presentation dimension of Internet disclosure (comprising 20 items) reflects the technological features and usability of the website. It is concerned with the general structure of the website as the foundation that supports Internet disclosure practices. Second, the score of the content dimension of Internet disclosure (consisting of 48 items) measures the level of disclosure of financial and non-financial information.

The reliability of the constructed index is tested using Cronbach's coefficient alpha as in Orens et al. (2010) and Ahmed et al. (2023). The rule of thumb for Cronbach's Alpha is 0.7, as the reliability coefficient falls between 0 and 1, where below 0.7 is questionable, and above 0.7 is acceptable (Gliem and Gliem

2003). The results of Cronbach's Alpha are 0.9857 for the total score of the index, 0.9928 for the score of the presentation dimension of the index, and 0.9826 for the score of the content dimension of the index. Thus, these results indicate acceptable levels of reliability of the constructed index.

Table 1: Web-based Accounting Disclosure Index

Panel A: Presentation Dimension (20 items)	
Technological Features	**Convenience and Usability of Website**
1. Financial data in HTML format **2.** Financial data in PDF format **3.** Financial data in Excel format **4.** Loading time is less than 10 seconds **5.** Availability of the stock exchange website's link **6.** Links to main and subpages of website **7.** Availability of links for other helpful websites **8.** Demonstrating diagrams (Interactive share price charts) **9.** Visual aid files (e.g., advertisements, meetings, conferences' recordings) **10.** Hyperlinks embedded within the annual reports	**1.** English/Arabic website **2.** Availability of search engines **3.** Help information / FAQs **4.** Contact details information **5.** Email address or telephone number for investors **6.** Pull-down menu **7.** The latest website update date **8.** Table of content / site map **9.** links to social media channels (FB, X, LinkedIn, YouTube) **10.** Employment opportunities / job creation (CSR)
Panel B: Content Dimension (48 items)	
Financial Information	**Non-Financial Information**

1. Balance sheet for the current year	**1.** Firm age
2. Income statement for the current year	**2.** Corporate structure
3. Notes related to financial statements for the current year	**3.** Information on corporate strategy
4. Auditor's report for the current year	**4.** Latest news
5. Interim (quarterly) financial statement for the current year	**5.** Company history and background
6. Annual report for the current year	**6.** Environmental policy
7. Statement of cash flow for the current year	**7.** Information about HR policy
8. Statement of changes in stockholders' equity for the current year	**8.** Information about R&D policy
9. Balance sheets for past years	**9.** Ownership structure
10. Income statements for past years	**10.** Structure of the Board of Directors
11. Statements of cash flow for past years	**11.** Members of the Audit Committee
12. Notes to financial statements for past years	**12.** Auditors' names (firm name)
13. Auditor's reports for past years	**13.** Information regarding directors and management
14. Interim financial statements for past years	**14.** Code of business conduct and ethics
15. Statements of changes in equity for past years	**15.** Main competitors / peers
16. Annual reports for past years	**16.** CSR / sustainability policy
17. Archive full annual report for the past year	**17.** CSR / sustainability / ESG reports
18. Financial ratios (e.g., current ratio, quick ratio, solvency	**18.** Donation / sponsorship programs and CSR / social activities
	19. About us (general) info
	20. Vision and mission statements
	21. Press releases (such as earnings release date and share repurchases)
	22. TCFD report
	23. Health and safety information or strategy or policy

ratio, ROE, ROA, EBITD, EPS) **19.** Current share prices **20.** Historical share prices **21.** Dividend per share **22.** Forward-looking indicators	**24.** Board of directors' reports **25.** Corporate governance reports **26.** Analyst coverage (names, emails, and firms)

4.2.3. Control Variables

Following prior studies (e.g., Orens et al., 2010; Abdi and Omri, 2020; Hasan and Islam, 2023; Priyadarshanie et al., 2023), this study controls for various variables including firm size, leverage, cross-listing, liquidity, firm age, and profitability. **Firm size (size)** is defined as the natural logarithm of total assets. **Leverage (Lev)** is the ratio of total debt to total assets (Orens et al., 2010; Nel et al., 2019; Abdi and Omri, 2020; Wukich et al., 2023). **Cross-listing (cross)** is a dummy variable that equals 1 if the firm is listed on at least one foreign stock exchange other than the Egyptian Exchange, and 0 otherwise (Debreceny et al., 2002; Xiao et al., 2004; Aly et al., 2010; Gesuele et al.,2017; Ahmed et al., 2023). **Profitability (ROA)** is measured by the return on assets calculated as net income divided by average total assets (Wukich et al., 2023; Dong et al., 2024). **Liquidity (liq)** is measured by the current ratio calculated as current assets divided by current liabilities (Aly et al., 2010; AbuGhazaleh et al., 2012). **Firm age (Age)** is measured by the total number of years of being the firm listed on the Egyptian Exchange (AbuGhazaleh et

al., 2012; Hasan and Islam, 2023; Dong et al., 2024). Table 2 presents variable definitions.

Table 2: Variable definitions

Variable	Abbreviation	Definition
Independent Variables		
IT intensity	IT_In	is the book value of all IT assets divided by total assets.
Government ownership	GOV	is a proxy for coercive isomorphism and calculated as the number of shares owned by government institutions divided by the total number of shares outstanding.
Board interlock	interlock	is a proxy for mimetic isomorphism and calculated as the total number of directors with appointments on other boards divided by the total number of board members.
Professionalism	prof	is a proxy for normative isomorphism and equals one if the CEO has an educational background in business, accounting, or finance or associated with a professional accounting association.
Dependent Variables		
Web-based disclosure	WBD	is measured using the total score of a constructed index comprising 68 items. The score is increased by 1 if one item is disclosed and 0 otherwise. The formula used for calculating the total score of the index for each company is: $WBD = \frac{\sum_{i=1}^{m} di}{m}$ Where *i* refers to each item in the index, *m*

		is the maximum possible score of WBD for each company (68), and *di* equals 1 if an item is disclosed and 0 otherwise.
Presentation dimension of Web-based disclosure	WBDp	WBDp = $\frac{\sum_{i=1}^{m} di}{m}$ Where *i* refers to each item in the index, *m* is the maximum possible score of WBDp for each company (20), and *di* equals 1 if an item is disclosed and 0 otherwise.
Content dimension of Web-based disclosure	WBDc	WBDc = $\frac{\sum_{i=1}^{m} di}{m}$ Where *i* refers to each item in the index, m is the maximum possible score of WBDc for each company (48), and di equals 1 if an item is disclosed and 0 otherwise.
Control variables		
Firm Size	size	is the natural logarithm of the firm's total assets.
Leverage	Lev	is the ratio of total debt to total assets.
Cross-listing	cross	is a dummy variable that equals 1 if the firm is listed on at least one foreign stock exchange other than the Egyptian Exchange, and 0 otherwise.
Profitability	ROA	is measured by the return on assets (ROA), calculated as net profit after tax divided by average total assets.
Liquidity	liq	is measured by current ratio, calculated as current assets divided by current liabilities.
Firm age	Age	is measure by the total number of years of being the firm listed on the Egyptian Stock Exchange.

4.3. Empirical Model

This study uses the following regression model to test hypotheses:

$$\mathbf{Y = \beta_0 + \beta_1\ IT\_In_{it} + \beta_2\ Gov_{it} + \beta_3\ interlock_{it} + \beta_4\ prof_{it} + \beta_5\ size_{it} + \beta_6\ Lev_{it} + \beta_7\ Cross_{it} + \beta_8\ ROA_{it} + \beta_9\ liq_{it} + \beta_{10}\ Age_{it} + e_{it}} \quad \mathbf{(1)}$$

Where *Y* is the dependent variable (WBD_{it}, $WBDp_{it}$, or $WBDc_{it}$). WBD_{it} is the total score of the Web-based disclosure index of firm i at year t). $WBDp_{it}$ is the score of the presentation dimension of Web-based disclosure index of firm i at year t). $WBDc_{it}$ is the score of the content dimension of Web-based disclosure index of firm i at year t). β_0 is the constant coefficient. See Table 1 for definitions of all variables.

5. Empirical Results

5.1. Descriptive Statistics

Table 3 presents descriptive statistics for all research variables. The total score of the Web-based disclosure index (WBD) of the sample ranges from 0.103 to 0.897, and has mean and median values of 0.503 and 0.5147, respectively. These statistics indicate that the Web-based disclosure provided by the sample companies tends to be relatively moderate. In addition, no company scores 100%, indicating that there is a need for

improvement in the Egyptian Web-based disclosure practices. Moreover, there is a huge variation between companies in disclosure practices, highlighting a need for more regulations and standards for Web-based discourse practices in Egypt. The mean (median) values of WBDp and WBDc are 0.491 (0.5) and 0.507 (0.542), respectively. These statistics show that the mean and median values of WBDp are relatively close to those of WBDc, suggesting that companies in the sample focus on the two dimensions of Web-based accounting disclosure. However, there are huge variations among companies in terms of WBDp and WBDc ranging from 0.2 to 0.850 and 0.042 to 0.917, respectively. These variations reflect the voluntary nature of Web-based disclosure in Egypt.

Additionally, IT_In has a mean (median) value of 0.006 (0.00134) and ranges from 0 to 0.038, suggesting the low levels of IT investments, relative to total assets, in companies of the sample. The mean value of Gov is 0.1607 and the median is 0. The range of Gov is from 0 to 0.95, indicating the large stake of the government in some companies. The mean value of prof is 0.3632 and the median is 0. The mean value of interlock is 0.104 and the median is 0. The range of interlock in the sample is from 0 to 0.5, which means the maximum percentage of interlocked board members in companies of our sample is 50 % of the total number of board members.

Table 3: Descriptive Statistics

Variable	N	Mean	Median	Std. Dev.	Min	Max
WBD	234	0.503	0.515	0.154	0.103	0.897
WBDp	234	0.491	0.500	0.135	0.200	0.850
WBDc	234	0.507	0.542	0.182	0.042	0.917
IT In	234	0.006	0.001	0.010	0.000	0.038
Gov	234	0.162	0.000	0.273	0.000	0.95
prof	234	0.363	0.000	0.482	0.000	1.000
interlock	234	0.104	0.000	0.149	0.000	0.500
size	234	9.369	9.490	0.849	7.576	11.305
lev	234	0.181	0.151	0.188	0.000	0.781
cross	234	0.1068	0.000	0.309	0.000	1.000
ROA	234	0.077	0.058	0.097	-0.088	0.300
liq	234	1.766	1.535	0.916	0.660	3.740
Age	234	19.397	20.000	10.649	1.000	44.000

5.2. Correlation Results

Table 4 presents Pearson's correlation coefficients among all variables. It shows that there are significant positive correlations between each of the independent variables, including IT_In, interlock, and prof) and WBDp. Also, there is a significant positive correlation between each of interlock and prof and WBDc (at 1% level). However, there is a significant negative correlation between Gov and WBDc (r = -0.121) at 10% level. Moreover, both interlock and prof are positively correlated with WBD at 1% level.

Table 4 also presents the results of the Variance Inflation Factor (VIF) test, in the last column, to ensure that the multicollinearity problem is not present. The results reveal that none of the predictors have values exceeding the threshold of 10 (Hair et al., 2018), indicating that multicollinearity would not represent a problem for the following analysis.

Table 4: Pearson's Correlation Matrix and VIF

	(1) WBDp	(2) WBDc	(3) WBD	(4) IT_In	(5) Gov	(6) interlock	(7) prof	(8) size	(9) Ler	(10) Cross	(11) ROA	(12) liq	(13) Age	VIF
(1)	1.000													1.86
(2)	0.554***	1.000												1.53
(3)	0.720***	0.977***	1.000											1.40
(4)	0.150**	0.017	0.053	1.000										1.24
(5)	0.101	-0.121*	-0.075	0.250***	1.000									1.71
(6)	0.119*	0.214***	0.210***	-0.096	-0.224***	1.000								1.11
(7)	0.372***	0.266***	0.318***	0.139**	0.068	-0.041	1.000							1.23
(8)	0.549***	0.442***	0.510***	0.026	0.195***	0.076	0.285***	1.000						1.41
(9)	0.197***	0.140**	0.168***	0.136**	-0.212***	0.019	0.182***	0.203***	1.000					1.29
(10)	0.176***	0.185***	0.200***	0.034	-0.034	0.048	0.055	0.307***	0.217***	1.000				1.15
(11)	0.258***	0.230***	0.258***	0.068	0.211***	0.106	0.126*	0.213***	-0.078	0.042	1.000			1.19
(12)	-0.119*	-0.164**	-0.169***	-0.014	0.333***	-0.121	-0.096	-0.168***	-0.334***	-0.136**	0.225***	1.000		1.35
(13)	0.014	0.007	0.010	-0.187***	0.307***	-0.088	-0.261***	-0.031	-0.064	-0.009	-0.051	0.105	1.000	1.33

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

5.3. Regression Results

Tests of homoscedasticity and serial correlation, as assumptions of ordinary least square (OLS) regression, are conducted. In untabulated results, Breusch-Pagan / Cook-Weisberg test for heteroscedasticity confirms that there is heteroscedasticity when the dependent variable is WBDp or WBDc. In addition, the results of the Breusch-Godfrey LM test show that there is a serial correlation problem since p-values are less than 5%. Consequently, Panel Corrected Standard Errors (PCSEs) is suitable to obtain more efficient and consistent estimators when the residuals are heteroskedastic and serially correlated (Gujarati and Porter, 2022).

Table 5 presents the regression results. Columns 1, 2, and 3 of Table 5 indicates the results when the dependent variable is

WBD, WBDp, and WBDc, respectively. The results in Column 1 show that there is a significant positive relationship between IT_In and WBD. This indicates that firms with high IT assets have higher levels of WBD. In addition, the results reveal that there is a significant positive association between IT_In and WBDp in Column 2 (coefficient =2.837) as well as a significant positive association between IT_In and WBDc in Column 3 (coefficient of 2.512). These results indicate that firms with high IT assets have higher levels of both WBDp and WBDc. Therefore, the results suggest that firms with high levels of IT intensity would have more sophisticated levels of technology and innovation in a manner that enable them to enhance the content and presentation of the disclosed accounting information via their websites. These results are consistent with findings of prior studies supporting the positive impact of IT intensity on disclosure of accounting information (e.g., Debreceny et al., 2002; Xiao et al., 2004; Aly et al., 2010; Boubaker et al., 2012; Angst et al., 2014; Johnston and Zhang, 2018; Lihniash et al., 2020; Arlaili and Rahmawati, 2023). Accordingly, we accept H1.

As for coercive isomorphism, the results in Column 1 reveal that Gov is negatively associated with WBD with a coefficient of -0.156 and statistical significance of 1% level. This shows that firms with high governmental ownership have lower levels of WBD. There is a significant negative association between Gov and WBDp with a coefficient of -0.044 as shown in Column 2. In addition, the

results in Column 3 show a significant negative relationship between Gov and WBDc (coefficient = -0.202), indicating that high governmental ownership is associated with lower levels of WBDc. They are consistent with findings of prior studies supporting the "hindering effect" of isomorphic forces (e.g., Lee and Blouin, 2019; Kaya and Seebeck, 2019; Carungu et al., 2021; Wukich et al., 2023). Hence, H2 is accepted.

One possible explanation for the negative association between governmental ownership and both of WBD and WBDc is that governmental entities or owners might have private access to information and thus they exercise less pressure on firms to disclosure information via their websites. Another possible explanation is that governmentally-owned firms might suffer from agency conflicts arising from weaker monitoring role of governmental entities. These results are consistent with Xiao et al., (2004), Samaha et al., (2012), and Ahmed et al., (2023).

Regarding mimetic isomorphism, the results show that there are significant positive associations between interlock and WBD (coefficient = 0.134), between interlock and WBDp (coefficient = 0.079), and between interlock and WBDc (coefficient =0.157). These results indicate that firms with higher percentages interlocked directors have higher levels of WBD, WBDp, and WBDc. These results provide strong support for the mimetic isomorphism of institutional theory. That is, directors with multiple directorships facilitate imitation strategies through virtue of social

influence processes and imitating other firms perceived to be more legitimate and successful. Therefore, board interlock would enhance mimicking behavior as it helps firms to imitate other leading firms to achieve legitimacy and a competitive advantage (Hasan and Islam, 2023; Wukich et al., 2023). These results are consistent with those of prior studies that support the positive impact of mimetic isomorphism on accounting disclosure (e.g., Ribeiro et al., 2016; Garcia-Sanchez et al., 2016; Posadas et al., 2023; Wukich et al., 2023). Hence, H3 is accepted.

In terms of normative isomorphism, the results report that prof is positively associated with WBD, WBDp, and WBDc. All coefficients are significant at the 1% level. These results reveal that firms with higher percentages of professionalized CEOs have higher levels of WBD and its two dimensions (WBDp and WBDc). They provide strong support for the normative isomorphism of institutional theory and suggest that the existence of professionalization supports better understanding of business operations and sharing the same culture, norms, and beliefs, i.e., spreading the normative isomorphism. This would also make accounting disclosure practices more homogenous (Garcia-Sanchez et al., 2016; Kaya and Seebeck, 2019; Posadas et al., 2023). These results are consistent with those of prior studies that support the positive impact of normative isomorphism on accounting disclosure (e.g., Ribeiro et al., 2016; Garcia-Sanchez

et al., 2016; Nyahas et al., 2017: Posadas et al., 2023; Wukich et al., 2023). Hence, H4 is strongly accepted.

As for control variables, the results show that firm size, ROA, and firm age have significant positive associations with each of WBD, WBDp, and WBDc. However, lev, cross, and liq have insignificant associations with WBD, WBDp, or WBDc.

Overall, the results support the prediction that IT intensity and different forms of isomorphic forces separately and collectively play a role in shaping Web-based disclosure practices in Egypt.

Table 5: Regression Results

	WBD	WBDp	WBDc
IT_In	2.608**	2.837***	2.512***
	(2.17)	(8.71)	(4.43)
Gov	-0.1562***	-0.044***	-0.203***
	(-4.23)	(-2.66)	(-7.64)
interlock	0.134**	0.079***	0.157***
	(2.45)	(3.84)	(3.48)
prof	0.074***	0.069***	0.076***
	(4.17)	(6.18)	(7.00)
size	0.081***	0.071***	0.084***
	(7.46)	(20.08)	(11.22)
lev	-0.025	0.026	-0.047
	(-0.54)	(0.90)	(-1.07)
cross	0.013	-0.001	0.019
	(0.50)	(-0.06)	(1.15)
ROA	0.003***	0.002***	0.003**
	(3.39)	(2.78)	(2.43)
liq	-0.005	-0.002	-0.007
	(-0.55)	(-0.37)	(-0.78)
Age	0.003***	0.002***	0.003***
	(3.69)	(4.58)	(8.80)
Constant	-0.351***	-0.276***	-0.382***
	(-3.38)	(-7.37)	(-4.66)
R-squared	0.4105	0.412	0.341
Wald chi2	162.92	164341.03	13944.94
Prob > chi2	0.0000	0.0000	0.0000
SD dependent var	0.154	0.135	0.182
Number of obs	234	234	234

*** p<.01, ** p<.05, * p<.1

5.4. Robustness Tests

5.4.1. Alternative Statistical Technique

To check the robustness of the main results, an alternative statistical technique is used. Poisson regression models are used. Table 6 shows a positive significant relationship between IT intensity and Web-based disclosure (total score and content score). Moreover, the governmental ownership is negatively and significantly associated with Web-based disclosure (total and content scores). There is a positive significant relationship between board interlock and Web-based disclosure (total and content scores). Finally, there is a positive significant relationship between professionalization and Web-based disclosure (total, presentation, and content scores). Therefore, the results of Poisson regression models are consistent of those of the main models reported in table 5.

Table (6): Poisson Regression Results

Variables	WBD	WBDp.	WBDc
IT_In	4.596***	4.564	4.597**
	(2.69)	(1.46)	(2.25)
Gov	-0.293***	-0.039	-0.4003***
	(-5.28)	(-0.39)	(-6.01)
interlock	0.229***	0.156	0.256***
	(2.95)	(1.05)	(2.81)
prof	0.127***	0.119***	0.130***
	(5.16)	(2.60)	(4.47)
size	0.171***	0.150***	0.180***
	(10.85)	(5.11)	(9.62)
lev	-0.054	0.076	-0.108
	(-0.79)	(0.60)	(-1.32)
Cross	0.022	-0.007	0.034
	(0.61)	(-0.10)	(0.79)

ROA	**0.006*** (4.53)**	**0.004* (1.83)**	**0.006*** (4.21)**
liq	**-0.016 (-1.14)**	**-0.008 (-0.30)**	**-0.020 (-1.15)**
Age	**0.004*** (3.85)**	**0.001 (0.60)**	**0.005*** (4.18)**
Constant	**1.737*** (11.07)**	**0.726** (2.50)**	**1.300 *** (6.97)**
Log likelihood	**-887.843**	**-535.195**	**-905.146**
LR chi2(chi2	**300.36**	**69.03**	**246.67**
Prob > chi2	**0.0000**	**0.0000**	**0.0000**
Pseudo R2	**0.145**	**0.061**	**0.120**
Number of obs	**234**	**234**	**234**

***** p<.01, ** p<.05, * p<.1**

5.4.2. Using Industry and Year Effects

Another robustness of the main results is testing models with including industry and year effects as dummy variables. Table 7 shows a positive significant relationship between IT intensity and Web-based disclosure (total, presentation, and content scores). Also, governmental ownership is negatively and significantly associated with Web-based disclosure (total, presentation, and content scores). There is a positive but insignificant relationship between board interlock and Web-based disclosure (total, presentation, and content scores). Finally, there is a positive significant relationship between professionalization and Web-based accounting disclosure (total, presentation, and content scores). Thus, the results are consistent of those of main models presented in table 5 except the impact of interlock on Web-based disclosure. This could be explained as mimetic isomorphism, measured by board interlock, might be affected by the industry and year.

Table (7): Regression Results using Industry Effect and Year Effect

Variables	WBD	WBDp	WBDc
IT_In	3.861**	2.091*	3.163*
	(2.441)	(1.652)	(1.937)
Gov	-0.129***	-0.131***	-0.180***
	(-2.790)	(-2.953)	(-3.833)
interlock	0.073	0.0461	0.069
	(1.054)	(0.921)	(0.950)
prof	0.086***	0.045***	0.062***
	(4.162)	(2.834)	(2.924)
size	0.104***	0.062***	0.102***
	(7.832)	(4.326)	(7.822)
lev	0.032	0.0149	0.021
	(0.624)	(0.459)	(0.356)
Cross	-0.002	0.011	0.007
	(-0.065)	(0.526)	(0.225)
ROA	0.002**	0.001	0.004***
	(2.334)	(1.157)	(3.517)
liq	0.027***	0.0121*	0.029**
	(2.615)	(1.864)	(2.413)
Age	0.003**	0.001	0.003***
	(2.400)	(0.821)	(2.968)
Constant	-0.619***	-0.119	-0.634***
	(-4.639)	(-0.839)	(-4.878)
Industry Effect	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes
R-squared	0.4830	-	-
Adj R-squared	0.4149	-	-
F-test	7.09	-	-
Prob > F	0.0000	-	-
Wald chi2	-	86.96	239.27
Prob > chi2	-	0.0000	0.0000
Number of obs	233	234	234

*** p<.01, ** p<.05, * p<.1

6. Conclusions

This study examines the impact of IT intensity and isomorphism on Web-based disclosure. It covers the period from 2021 to 2023 and has a final sample of 78 firms, corresponding to 234 observations. It finds the following: 1) there is a positive

impact for IT intensity on Web-based disclosure; 2) there is a negative relationship between coercive isomorphism, through governmental ownership, and Web-based disclosure; 3) there is a positive relationship between mimetic isomorphism, through board interlock, and Web-based disclosure, and 4) there is a positive relationship between normative isomorphism, through professionalization, and Web-based disclosure. Thus, this study sheds the light on the role of IT infrastructure in enhancing Web-based disclosure practices. Moreover, it reports an evidence that is in line with the institutional isomorphism theory (DiMaggio and Powell, 1983) arguing that isomorphic pressures would affect corporate disclosure practices.

The results of this study would have important implications for preparers of disclosure, standard setters, and regulators. They would help preparers understand the existing Web-based disclosure practices and some of the underlying factors that could drive Web-based disclosure in Egypt as a developing economy. They would also provide valuable insights for standard setters and regulators in revising existing regulations and guidelines relating to Web-based disclosure and, therefore, enhancing the standardization and transparency of these practices.

The results of this study are not without limitations that could be suggestions for future research. First, this study uses a relatively small sample of 78 firms listed on the Egyptian Exchange and only covers a 3-year period. These restrictions

may limit the generalizability of its findings. Thus, it is recommended to use larger samples, extend the sample period, and investigate multiple markets in future research. Second, the measurement of Web-based disclosure is based on unweighted index that may not consider the relative importance of some items. Consequently, it is advised to develop a weighted index in future research. Third, this study uses governmental ownership, board interlock, and professionalization to proxy for the different forms of isomorphism. Therefore, it is suggested to employ other proxies in future research.

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