


THE IMPACT OF ELECTRONIC DATA INTERCHANGE ON ACCOUNTING SYSTEMS

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ARTICLE INFO	ABSTRACT
<p>Article history:</p>	
<p>Received 27 January 2023</p>	<p>Purpose: Electronic Data Interchange has positively impacted the accounting system considering several steps achieved due to the ability to execute several business-related tasks efficiently and fast without any human error. The present studies on Electronic Data Interchange (EDI) 's role in accounting systems refer to it as an interchange mechanism that has guided the exchange of business information driven by a standardized format by eliminating handwritten or manual tasks to electronic, digitalized, and globally reliable systems. This paper will provide a comprehensive analysis of the study to explore the role of Electronic Data Interchange on the accounting system and how its adoption is changing financial performance due to its efficiency and effectiveness. The analysis will create mass awareness of Electronic Data Interchange (EDI) use and its adoption, besides its acceptability by the entire European trading community.</p>
<p>Accepted 21 March 2023</p>	
<p>Keywords:</p>	
<p>Electronic; Data; Interchange; Accounting.</p>	<p>Theoretical Framework: Electronic data interchange (EDI) has improved accounting systems practices by eliminating paper and introducing information exchange and transactions through high-speed electronic controls without human intervention. Based on the Electronic Data Interchange's progressive background, it has created a rapid development and shift by several organization accounting systems as shown in several present studies.</p>
	<p>Design Methodology: This research used analytical and descriptive data collection tools to investigate the role of electronic data interchange in the project work of accounting systems in organizations. The data was obtained after multiple case studies to observe various kinds of Data Interchange diffusion in Europe and Romani. Several researchers like O'Callaghan and open-ended questionnaires were primarily developed to collect data from banks that use electronic data interchange in Europe and Romania. A simple random sampling mechanism was used to spread the data collection tools to the manager. A descriptive data analysis factorial technique was used to analyze the data supporting the role of electronic data interchange in accounting systems. Data collected was analyzed in bar graphs based on the case studies to show the role of EDI adoption among several organizations in the accounting system.</p>
	<p>Findings: The study findings indicated that management of European companies in assessing completion among the banking sector members using E.D.I must be adopted dur to several advantages such as increased efficiency as seen in their accounting systems.</p>
	<p>Research Practical and Social Implication: This research demonstrates that the implementation of Electronic Data Interchange can significantly impact accounting systems by improving efficiency, accuracy, and accountability. In the context of accounting systems, EDI can be used to automate the flow of financial transactions between organizations, such as invoicing, purchase orders, and payments.</p>
	<p>Originality/ Value: The results of this study suggest that there is the potential of E.D.I to make a significant impact on the field, improving and simplifying accounting activities and streamlining organization efficiency.</p>
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O IMPACTO DO INTERCÂMBIO ELETRÔNICO DE DADOS EM SISTEMAS CONTÁBEIS

RESUMO

Finalidade: O Intercâmbio Eletrônico de Dados impactou positivamente o sistema de contabilidade, considerando várias etapas alcançadas devido à capacidade de executar várias tarefas de negócios de forma eficiente e rápida sem qualquer erro humano. Os estudos atuais sobre o papel do Intercâmbio Eletrônico de Dados (EDI) nos sistemas de contabilidade referem-se a ele como um mecanismo de intercâmbio que tem guiado a troca de informações comerciais conduzida por um formato padronizado, eliminando tarefas manuais ou manuais para sistemas eletrônicos, digitalizados e globalmente confiáveis. Este documento fornecerá uma análise abrangente do estudo para explorar o papel do Intercâmbio Eletrônico de Dados no sistema contábil e como sua adoção está mudando o desempenho financeiro devido à sua eficiência e eficácia. A análise criará uma conscientização em massa da utilização do Intercâmbio Eletrônico de Dados (EDI) e sua adoção, além de sua aceitabilidade por toda a comunidade comercial europeia.

Quadro teórico: O intercâmbio eletrônico de dados (EDI) melhorou as práticas dos sistemas de contabilidade, eliminando o papel e introduzindo o intercâmbio de informações e transações através de controles eletrônicos de alta velocidade sem intervenção humana. Com base no histórico progressivo do Intercâmbio Eletrônico de Dados, ele criou um rápido desenvolvimento e mudança por vários sistemas de contabilidade da organização, como mostrado em vários estudos atuais.

Metodologia de Design: Esta pesquisa usou ferramentas analíticas e descritivas de coleta de dados para investigar o papel do intercâmbio eletrônico de dados no trabalho de projeto de sistemas contábeis em organizações. Os dados foram obtidos após vários estudos de caso para observar vários tipos de difusão do Intercâmbio de Dados na Europa e no Romani. Vários pesquisadores como O'Callaghan e questionários abertos foram desenvolvidos principalmente para coletar dados de bancos que usam o intercâmbio eletrônico de dados na Europa e na Romênia. Um mecanismo simples de amostragem aleatória foi usado para distribuir as ferramentas de coleta de dados para o gerente. Foi utilizada uma técnica fatorial descritiva de análise de dados para analisar os dados que suportam o papel do intercâmbio eletrônico de dados em sistemas de contabilidade. Os dados coletados foram analisados em gráficos de barras baseados nos estudos de caso para mostrar o papel da adoção do EDI entre várias organizações no sistema contábil.

Conclusões: As conclusões do estudo indicaram que a administração de empresas europeias na avaliação da conclusão entre os membros do setor bancário que usam E.D.I deve ser adotada devido a várias vantagens, como o aumento da eficiência visto em seus sistemas de contabilidade.

Research Practical and Social Implication: Esta pesquisa demonstra que a implementação do Intercâmbio Eletrônico de Dados pode afetar significativamente os sistemas contábeis, melhorando a eficiência, precisão e prestação de contas. No contexto dos sistemas contábeis, o EDI pode ser usado para automatizar o fluxo de transações financeiras entre organizações, como faturamento, ordens de compra e pagamentos.

Originalidade/valor: os resultados deste estudo sugerem que existe o potencial da E.D.I para ter um impacto significativo no campo, melhorando e simplificando as atividades contábeis e simplificando a eficiência da organização.

Palavras-chave: Eletrônico, Dados, Intercâmbio, Contabilidade.

EL IMPACTO DEL INTERCAMBIO ELECTRÓNICO DE DATOS EN LOS SISTEMAS CONTABLES

RESUMEN

Finalidad: El Intercambio Electrónico de Datos ha impactado positivamente el sistema contable considerando varios pasos alcanzados debido a la capacidad de ejecutar varias tareas relacionadas con el negocio de manera eficiente y rápida sin ningún error humano. Los presentes estudios sobre el papel del Intercambio Electrónico de Datos (IDE) en los sistemas contables lo refieren como un mecanismo de intercambio que ha guiado el intercambio de información empresarial impulsado por un formato estandarizado al eliminar las tareas manuales o manuscritas a los sistemas electrónicos, digitalizados y globalmente confiables. Este documento proporcionará un análisis exhaustivo del estudio para explorar el papel del intercambio electrónico de datos en el sistema contable y cómo su adopción está cambiando el rendimiento financiero debido a su eficiencia y eficacia. El análisis creará una conciencia masiva del uso del intercambio electrónico de datos (EDI) y su adopción, además de su aceptabilidad por toda la comunidad comercial europea.

Marco teórico: El intercambio electrónico de datos (IDE) ha mejorado las prácticas de los sistemas de contabilidad al eliminar el papel e introducir el intercambio de información y las transacciones mediante controles electrónicos de alta velocidad sin intervención humana. Sobre la base de los antecedentes progresivos del Intercambio Electrónico de Datos, ha creado un rápido desarrollo y cambio en varios sistemas de contabilidad de las organizaciones, como se muestra en varios estudios actuales.

Metodología de diseño: Esta investigación utilizó herramientas analíticas y descriptivas de recolección de datos para investigar el papel del intercambio electrónico de datos en el trabajo de proyectos de sistemas contables en organizaciones. Los datos se obtuvieron después de múltiples estudios de casos para observar diversos tipos de difusión de intercambio de datos en Europa y Rumania. Varios investigadores como O'Callaghan y cuestionarios abiertos fueron desarrollados principalmente para recopilar datos de bancos que utilizan el intercambio electrónico de datos en Europa y Rumania. Se utilizó un simple mecanismo de muestreo aleatorio para difundir las herramientas de recolección de datos al gerente. Se utilizó una técnica descriptiva factorial de análisis de datos para analizar los datos que sustentan el papel del intercambio electrónico de datos en los sistemas contables. Los datos recogidos se analizaron en gráficos de barras basados en estudios de casos para mostrar el papel de la adopción de la IDE entre varias organizaciones en el sistema contable.

Conclusiones: Los resultados del estudio indicaron que la gestión de las empresas europeas en la evaluación de la finalización entre los miembros del sector bancario que utilizan E.D.I debe adoptarse debido a varias ventajas, como el aumento de la eficiencia, como se ve en sus sistemas contables.

Investigación Implicación práctica y social: Esta investigación demuestra que la implementación del Intercambio electrónico de datos puede afectar significativamente los sistemas de contabilidad al mejorar la eficiencia, la precisión y la rendición de cuentas. En el contexto de los sistemas contables, el EDI se puede utilizar para automatizar el flujo de transacciones financieras entre organizaciones, como la facturación, las órdenes de compra y los pagos.

Originalidad/ Valor: Los resultados de este estudio sugieren que existe el potencial de E.D.I para tener un impacto significativo en el campo, mejorando y simplificando las actividades contables y racionalizando la eficiencia de la organización.

Palabras clave: Electrónico, Datos, Intercambio, Contabilidad.

INTRODUCTION

Technological advancements have brought a new system that determines how business is conducted. In accounting systems, sources depict a rapid shift from manual systems to automated systems that have increased task performance and ensured reliability (Tiberius and Hirth, 2019, p.100288). Several organizations have shifted to adopting the Electronic Data Interchange system, which has solved several tasks electronically and has eliminated a lot of paperwork (Gonçalves et al., 2022, p. 12). Historically collaboration of global organizations such as banks was complex due to the vast amount of information and paperwork that needed to be interchanged. But with Electronic Data Interchange, the future of accounting systems in several organizations is still being explored with several advantages evident (Möller, Schäffer, and Verbeeten, 2020, p.6). From the European Union, several organizations are on pace to fully adopt the E.D.I. system, while others have fully incorporated their information exchange into electronic systems (Krcmar, N. Bjørn-Andersen and O'Callaghan, p.230). The impact of Electronic Data exchange is very high among accountants; despite the probability of transferring errors, they still ensure the tasks are handled very fast. Thus, before adopting the E.D.I. system, the organization must ensure all measures are in place to maximize the strengths and potentials of Electronic Data Interchange, as evident in most accounting organizations. The adoption of Electronic Data Interchange in accounting systems is continually changing how people think. The adoption also extends to changing business procedures and organization

interactions financially (Kwilinski et al., 2019, p.5). Thus, for efficient performance, the relevant professionals in accounting systems must understand the strength and potential of E.D.I. Starting with the background of E.D.I., this study will incorporate present research to justify how relevant electronic data interchange is in the accounting system. This will include descriptive analysis and qualitative data collection in several organizations to show how E.D.I. adoption is changing financial performance due to its efficiency and effectiveness. The research problem indicates several arguments that E.D.I. negatively impacts the accounting system due to the rapid change it has brought. This creates a theoretical gap that opens more research to verify if Electronic Data interchange adoption is relevant in accounting (Gonçalves et al., 2022, p. 18). This study will rely on the fact that Electronic Data Interchange has proved an appropriate role and enabled global collaboration due to advanced accounting systems, which were impossible with the manual system. Thus, despite the opposing arguments, there are way too many advantages of Electronic Data Interchange in accounting systems if the adoption is shaped and the professional utilizes the potential of an Electronic Data Interchange system to ensure efficient and effective results.

In accounting, electrical data interchange acts as an information know-how regime responsible for exchanging bank transaction information (Apostol and C.I.P.R.I.A.N., 2020, p.64). Electronic data interchange is a system that allows the electronic exchange of business documents, such as invoices and purchase orders. Shipping notices between organizations (Apostol & C.I.P.R.I.A.N., 2020, Pn.64). Electronic data interchange has a long history in accounting. It has been used by businesses for decades to streamline and automate the exchange of business documents. E.D.I. had its roots in the 1960s when companies began to use computer systems to automate their accounting and record-keeping processes (Anthony and Abbas, 2021, p.719). In the 1970s and 1980s, E.D.I. began to gain widespread adoption for businesses to exchange data electronically (Anthony and Abbas Petersen, 2021, p.719). At this time, Electronic Data Interchange was primarily used to exchange invoices and purchase orders. Still, it has since evolved to include many other business documents, such as shipping notices, warehouse receipts, and payment instructions. This practical approach provides accurate information, saves time and funds, and permits critical decision-making (Kokina and Blanchette, 2019, p.100431). Recently, information know-how to support the conversation of statistics has been growing. E.D.I. has become one of the essential electrical applications to be adopted widely. In Europe, the usage of Electronic Data Interchange is so scant, while this application is commonly used in the U.S.

One of the main benefits of Electronic Data Interchange is that it allows organizations to exchange data in a standardized format, which can significantly reduce the time and effort required to process transactions. While Electronic Data Interchange can have many benefits for accounting systems, it could also have some negative impacts. One potentially harmful effect is that E.D.I. requires a significant investment in technology and infrastructure, such as software, hardware, and employee training. However, by streamlining and automating tasks, Electronic Data Interchange has the immense potential to save time and reduce the risk of errors, which can improve the accuracy and efficiency of the accounting process (Anderson and Lanen, 2002, p.720). Electronic Data Interchange technology adds value to the accounting profession by effectively improving the organization's productivity and project work. Additionally, Electronic Data Interchange can expedite the account's knowledge.

In this 21st century, data structure, "paperless trade," and automatic data exchange are crucial subjects being highlighted in business. Businesses have begun to embrace these new electronic approaches that promise 99% work efficiency. Several government and non-governmental institutes have worked towards installing Electronic Data Interchange into the accounting businesses. E.D.I. is one of the European state's many efforts to provide a better marketing tool and practice (Kokina and Blanchette, 2019, p.100431). The European community launches the Trade Electrical Data Interchange to promote E.D.I. at the beginning of this decade. The launch created awareness for European traders to accept, install and use the Electronic Data Interchange application to exchange data between business partners.

Australia's Raiffeisen bank in Central and Eastern Europe leads in Electronic Data Interchange application connections installed in seventeen national markets. All Romania clients highly welcome the advanced approach; companies' transactions involve various interchanges in banking settings. Thus, most are for requesting this safe, discrete, and easy money transfer technique. The application is fast and cheap to afford—the number of contactless Payments is growing widely. Users can pay for all their bills using a smartphone from a single app by scanning a code, which reduces transaction fees being charged by another commercial. Equally meaningful, it allows consultation, allocation requests, direct debits, and reporting. E.D.I. oversees all these multitudes of activities with the relationships between banks' adopted mechanisms across the accounting chambers. Electronic Data Interchange impacts the account by managing regional and international data interchange between clients and banks. Standardized Security of the business is observed, and there is an improved banking standard interchange like the SWIFT, S.E.P.A., and EBICS. Studies show evidence of the E.D.I.'s effectiveness in accounting (Ledwaba, Pelser, and Fatoki, 2019). This research taught that

Electronic Data Interchange reduces the order processing period and independent complexity and mitigates most of the adverse effects of complexity processing time. Besides, dealers can submit error-free orders to the producers (Lechler et al., 2019, p. 1003). At most, the eroded orders' feedback helps dealers offer more accurate orders. This study shall address the impact of electrical data interchange between banks and businesses embracing Electronic Data Interchange in their accounting system in European and Romanian nations.

The research topic "Electronic Data Interchange role on Accounting Systems" is significant and timely because it fills a knowledge gap and offers insightful information about how E.D.I. affects accounting systems. First, technology is increasingly used in accounting, and Electronic Data Interchange is widely used to exchange company papers electronically. To remain competitive and enhance their financial processes, businesses must comprehend how E.D.I. affects accounting systems. Second, implementing and researching such technologies is crucial because, in the current digitalization context, using Electronic Data Interchange systems is an essential tool for enhancing the effectiveness and dependability of financial systems (Ledwaba, Pelser and Fatoki, 2019). It can also be seen as a value-added for organizations that want to comply with international standards and regulations. Finally, the study can influence future research and practice and has immediate applications for businesses, academics, and industry professionals.

Below are the study's aims.

1. What impact does electrical data interchange impose on the accounting system that adopted it?
2. What impact does Electronic Data Interchange have on the project work of the accounting organizations?
3. How can the quality of performance of an individual accountant be improved by the use of Electronic Data Interchange in banking departments?
4. What are the advantages of utilizing the Electronic Data Interchange technique in accounting?
5. What changes do organizations that use E.D.I. have in the accounting system?
6. How does the electrical data interchange mechanism help accounting teams become more efficient in the business world today?

LITERATURE REVIEW

Electronic Data Interchange is more critical to the accounting profession and the organization's productivity adopting this excellent accounting technique. The technique can increase orders and organization administration work besides reducing inventory holding and spoilage (Anderson and Lanen, 2002, p.719). In most cases, it reduces demand and billing errors, enhances flexibility, and reduces economics of scale in administration work requiring different evaluation approaches through other capacity investments. The research conducted in the furniture industry to observe the time taken for scheduling one dealer's order to the other was proven to be very quick (Anderson and Linen, 2002, p. 122). The company staff's fast, error-free orders impeded performance in the administration sets due to slow order completion, increasing dealers' errors. The effect of Electronic Data Interchange was in this furniture industry. Observe the impact of E.D.I. not only in the production complexity but in all other sectors to obtain its maximum effect. Electronic Data Interchange between European banks reduces inventory levels and improves cash flow. European banks encouraged close ties between European trading parties (Allahverdi, 2011). They were glad to see the customers due to quick response generation, increased speed, and accuracy in transaction activities. Companies were streamlined, thus providing an immediate completion advantage over their opponents.

Colleagues conducted research (2018) to determine the impact of artificial intelligence, researching electrical data interchange on accounting firm performance works. The study's findings indicate that electrical data interchange, a component widely used in artificial intelligence machines, positively impacts the accounting system (Odoh et al., 2018, p.10). The first Electronic Data Interchange application to be installed was made by exchanging proprietary electronic data interchange between business partners using magnetic tapes. The European nation insisted on trad incorporating E.D.I. application in their accounting system. Trading prevailed by combining national standards and traditions to adopt Electronic Data Interchange across European nations. Some government and non-governmental industries collaborated to construct an E.D.I. infrastructure to serve the country across European states.

Inter-organizational externalities are highly dependent on the adoption decision-making of the E.D.I. application between the organizations. Organizations are forced to depend on each other (Lechler et al., 2019, p. 1008). A decision by one Electronic Data Interchange partner without the consent of the other cause's implications to the uninvolved member. E.D.I. installation and maintenance were quite expensive to be embraced by one company. The third part complicates the Electronic Data Interchange services at a time. In Europe, the banking

industry is advancing rapidly among other financial institutes (Mak, 2022). The departments are closely intertwined with other firms, including the central bank. Day-day financial transactions are completed. Activities like debit notes, payments, and credits happen daily at any time safely, both on the local and international levels. Banking activities run under safe and reliable legislative regulations for any financial data exchange between parties involved. Under such credentials, the guaranteeing member is transparently required to exchange information for timely payment, significant transactions, and cash management efficiency. In 2013 Raiffeisen bank and Nasdaq Stockholm in Romania signed an agreement. S.E.Q.R. is a seamless subsidiary, allowing the client to connect their mobile bank to bank accounts to conduct mobile banking and impact the Electronic Data Interchange application within the organization's accounting system. The firm grew substantially. Now it can pay a lot of people both online and in-person with the help of Garanti Bank (Apostol, 2020, p.650). The number of S.E.Q.R. clients willing to use N.F.C. technology, a section of Electronic Data Interchange for payment, is growing daily. Clients can now scan a code and pay bills using a single app from their comfort smartphones.

All the selected reference sources point to one direction to justify the role of Electronic Data Interchange to have a vast impact on accounting systems (Mak, 2022). This is compared to the old manual techniques used by several organizations to achieve tasks such as editing and preparing financial records. Supportive arguments from the study on the future of accounting also indicate the potential EDI has on the organization if fully implemented (Moll and Yigitbasioglu, 2019, p.100833). Relating to the previous manual accounting system, the future of accounting with EDI shows easy information transfer, such as mobile banking, collaborative accounting system, and the remote relationship between clients and companies in financial data (Gonçalves et al., 2022, pp.11). Most banks and organizations in places such as Europe are also showing a rapid change in their accounting system due to the pressure of being eliminated from the market and minimized profits while bargaining with manual systems. However, the high impact of Electronic Data Interchange adoption in the accounting system among several organizations affects how several organizations operate. The gap seems to favor the organizations that have mastered the electronic automation controls, ultimately affecting the organization still struggling to master the trend. Explaining "The effect of digital accounting systems on the decision-making quality in the banking industry sector," EDI, as much as acting as a blueprint for some organizations and advancing their accounting system, affects the quality of decision-making since an error can be easily transmitted and shared among collaborated accounting system (Al-Okaily et al., 2022). Thus, comparing the selected sources and the prior,

they relay two different sides of EDI, thus indicating a theoretical gap that is yet to be justified on the methodology below. Explaining the theoretical gap opens more research to verify if Electronic Data Interchange adoption is relevant in accounting. This study will rely on the fact that Electronic Data Interchange has proved an appropriate role and enabled global collaboration due to advanced accounting systems, which were impossible with manual systems (Moll and Yigitbasioglu, 2019, p.100833). Thus, despite the opposing arguments, there are way too many advantages of Electronic Data Interchange in accounting systems if the adoption is shaped and the professional utilizes the potential of an Electronic Data Interchange system to ensure efficient and effective results.

MATERIAL AND METHODOLOGY

Fourteen case studies were conducted to explore the benefits of Electronic Data Interchange adoption within European companies' management to assess community members' completion. Transaction companies from the following nations: The R.H.C.N.E.T. and Technische Unie in the Netherlands, Jan Damgaard in Finland, Groceries in Malaysian, Small media enterprises in Dutch, Industriink and State Railroad company in Denmark, Brun Passot and Leroy Merlin in France, Whirlpool and Barilla in Italy, Danzas and Ciba-Geigy company in Swaziland, A.E.C.O.C. company in Spain, Alcatel Bell Telephone in Belgium, Kuhne and Nagel and Bosch-Siemens Hauser in Germany were studied.

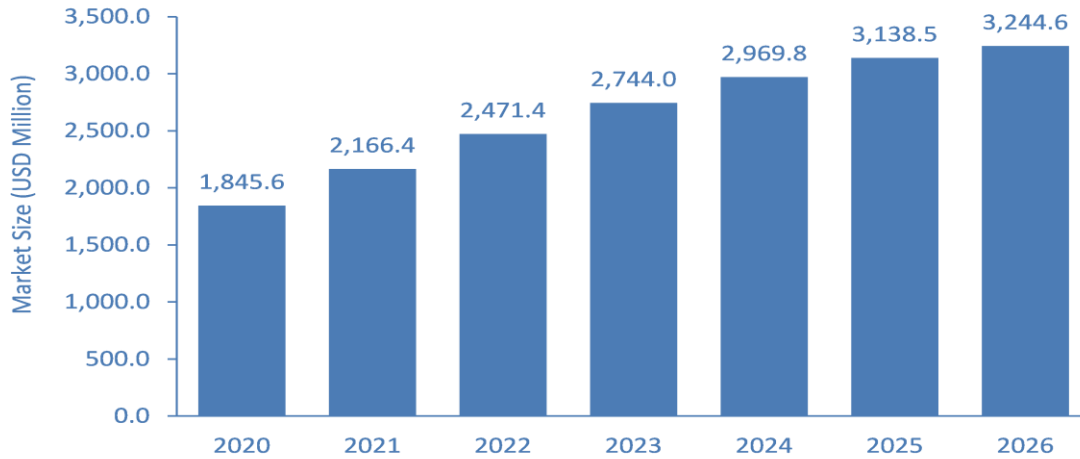
The research on the impact of electrical data interchange on accounting happening between banks of Europe and Romania was conducted for 14 days, from March 21 to February 4 progressively. Both analytical and descriptive data collection methods were employed. The data was obtained through reputable secondary information catalogs like recommended scientific European internal report journals, textbooks, and open-ended questionnaires primarily developed to collect data from banks that use Electronic Data Interchange in Europe and Romania. Sampling tools approaches like simple random sampling mechanism were used to spread the data collection tools to the manager of the following eleven European businesses(the R.H.C.N.E.T. and Technische Unie in the Netherlands, Jan Damgaard in Finland, Groceries in Malaysian, Small media enterprises in Dutch, Industriink and State Railroad company in Denmark, Brun Passot and Leroy Merlin in France, Whirlpool and Barilla in Italy, Danzas and Ciba-Geigy company in Swaziland, A.E.C.O.C. company in Spain, Alcatel Bell Telephone in Belgium, Kuhne and Nagel and Bosch-Siemens Hausgar in Germany were studied)

Descriptive sampling was drawn from the following Romania banks that adopted Electronic Data Interchange in their accounting transactions. The twenty questionnaires were emailed to the executive directors and the managers of these twenty banks. The letter instructed them to talk about the impact of E.D.I. in their accounting system. An official letter binding them to stick to the objectives of this study was attached following the questionnaire, all requesting the information system to release insight on the impact of Electronic Data Interchange in their transaction across banks and other study case firms. Two hundred questionnaires were given out, and 98% returned and reviewed to have answered the research questions accordingly; thus, they created the base of this study. The usages of Electronic Data Interchange trendy in selected banks had vicissitudes in structural guidelines and measures. Besides that, fluctuations in the procuring strategies developed the dependent variables of our study. Over the years, the banks have been using the Electronic Data Interchange technique, the purchasing transaction done using E.D.I. in percentages within the banks. Lastly, the rate of retailers that used Electronic Data Interchange in their dealings in our study developed our independent variable for this research.

RESULTS AND DISCUSSION

Explaining from the Fourteen case studies that were conducted to explore the benefits of Electronic Data Interchange adoption within the management of European companies to assess completion among the community members. Secondly, analytical and descriptive data collection methods showed an increment in the adoption of Electrical Data Interchange. Electronic Data Interchange in accounting systems proves a relevant role that assures global collaboration by several organizations implementing them. The trend evident from the case studies shows a positive impact among organizations implementing EDI on their accounting system, as shown below.

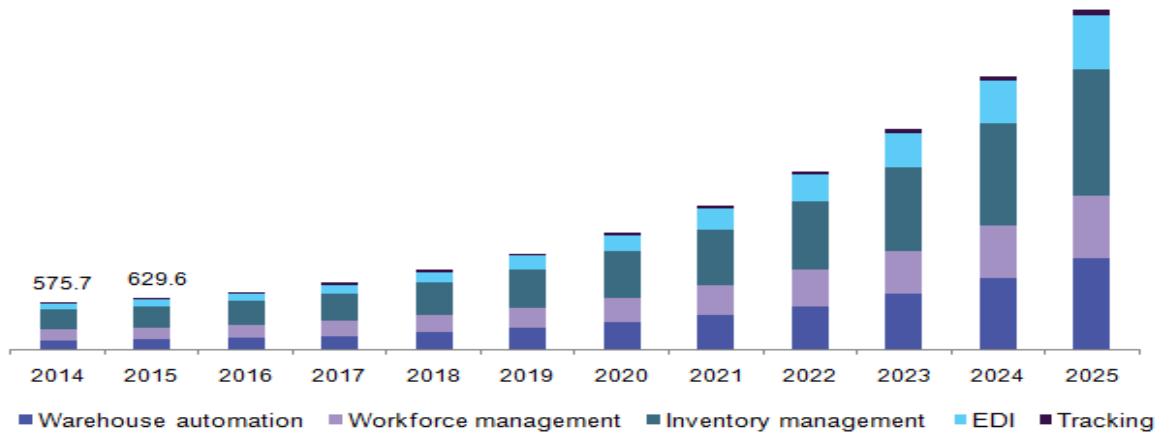
Fig1: EDI evident trend among organizations implementing the system in accounting.



Source: own processing

The results collected from the sent Questionnaires sent among the selected banks were based on justifying the role of EDI in the accounting system implemented by the banks compared to the manual system. The adoption collected was analyzed to show how most of the banks and businesses from the case studies have advanced and are quickly creating a strong market size in several tasks, such as warehouse accounting automation for business, workforce management, inventory management, financial tracking, and EDI as shown in the fig below.

Fig2: EDI adoption and prediction on accounting systems among business.



Source: own processing

The research data on the impact of electrical data interchange on accounting happening between banks of Europe and Romania.

Table 1 shows E.D.I. usage in European nations.

	NATION	EDI COMPANY CASE STUDY	BEGINNING YEAR	COMMENT
1	Netherlands	RECENT-Regional Healthcare	1923	To obtain a standardized success
2	Italy	Barilla-Food Industry	2007	98% of the plant uses E.D.I.
		Whirlpool-EDI to manage business	1999	Enhanced efficiency of its supply chain, cutting down expenses
3	Switzerland	Pharmaceutical Ciba-Geigy invoice project	1991	Reduced cost
		Danzas and beyond	2003	Competitive advantage over established firms
4	France	Leroy-Merlin	1989	A win-win proposal for our supplier
		Brun Passot	1994	So, the family business could secure earnings and benefits.
5	Belgium	Alcatel Bell Telephone -Procumbent and flexibility Strategy	1987	Expedition creating video communication between buyers and vendors
6	Denmark	Industrilink	1991	improve the competitiveness of a single company
7	Germany	Bosch-Siemens Hausger	1980	To achieve standardized integration architecture
8	Spain	A.E.C.O.C. s	1985	To connect with business partners
9	Finland	Jan-Dalsgaard, Consider multiple points	1996	To avoid losing clients
9	Malaysian	Grocery	2015	Provided information to small enterprise businesses
10	Dutch	137 small-medium enterprises	1999	Reduced completion by far much

Source: own processing

As shown from the evident trend connected from the results, several European organizations are rapidly developing towards fully adopting Electronic Data Interchange in their accounting system. Justifying the set hypothesis, E.D.I. lowers cost and upsurges effectiveness besides upgrading the company's worth. Explaining from Transaction companies from the following nations: The R.H.C.N.E.T. and TechnischeUnie in the Netherlands, Jan Damgaard in Finland, Groceries in Malaysian, Small media enterprises in Dutch, Industriink and State Railroad company in Denmark, Brun Passot and Leroy Merlin in France, Whirlpool and Barilla in Italy, Danzas and Ciba-Geigy company in Swaziland, A.E.C.O.C. company in Spain, Alcatel Bell Telephone in Belgium, Kuhne and Nagel and Bosch-Siemens Hauser in Germany that were studied (Setyowati, Widayanti, and Supriyanti, 2021, p.182). They all reflect Straight reimbursements of Electronic Data Interchange, including improved productivity of interior maneuvers, better openness to clientele, better-quality trading affairs, and increased inexpensive aptitude due to quick and less error-prone entreaty/answer ratio, a speedy and correct appointment and termination of orders, computerization of tedious managerial processes, and the optimization of catalog levels.

In Dutch, Electronic Data Interchange required three main factors to be adopted successfully. The presumed profits, company's readiness, and external forces. One hundred thirty-seven minor and medium enterprises were case studied in the Netherlands. Eighty-three of the totals who did not use E.D.I. supported the legitimacy and promised to adopt the

application. Fifty-four small firms were forced to adopt it mainly to avoid the eternal pressure issues and not because the system was beneficial. Researchers found no significant relationship between the level of amalgamation and benefits accruing from using Electronic Data Interchange techniques in their businesses.

Impact of Electronic Data Interchange on the European Accounting System

In Europe, the banking industry is advancing rapidly among other financial institutes. It is closely intertwined with other firms, including the central bank. Banks make sure that all financial transactions are completed daily. Banking activities like debit notes, payments, and credits happen daily at any time safely, both on the local and international levels (Savona, 2021). Banking activities run under safe and reliable legislative regulations for any financial data exchange between parties involved (Setyowati, Widayanti, and Supriyanti, 2021, p.181). Under such credentials, the guaranteeing member is transparently required to exchange information for timely payment, large-scale transactions, and cash management efficiency. For banking industry of Europe that uses E.D.I. offers the following significance. The banking systems that adopted Electronic Data Interchange in their overall setting proved to be positively impacted. E.D.I. has been known to speed up, standardize, and simplify documentation in accounting data popular in international trade (Saragiotis, 2019). Electronic Data Interchange can reduce negotiation costs while conducting business deals, thus impacting the bank by reducing supply costs. Various companies are enjoying horizontal interrogations besides other accruing advantages. Predictions on the impact of long-term usage of electrical data interchange are challenging to measure. E.D.I. turned out to be a necessary strategy in the accounting system. Suppliers could establish effective service with Electronic Data Interchange linkages with buyers, a simple form that benefits both parties and solidifies their partnership trust.

Electronic Data Interchange is known to reduce inventory levels, streamline company functionality, and supervise while improving money flow into the accounting chambers. High accuracy, besides improved speed, was observed in these companies giving more room for flexibility. E.D.I.'s ability to respond quickly to feedback from happy clients proves the company has competitive advantages over its users (Savona, 2021). Close ties between parties have been observed precisely due to enhanced and kept trust between the two partners. Electronic Data Interchange has shown more significant advantages in manufacturing industries that require frequent delivery supervision. It reduces the cost of human management, and this technique is electrical. It just needs to be commanded, and fewer people can keep supervising it as it monitors the workload on the ground (Moller, Schaffer, and Verbeeten,

2020, p.8). The use of E.D.I. has shortcomings that are of great concern to dealers. The lack of hard copies, the absence of audit trails, and the lack of document signatures are alarming. Organizations that adopted Electronic Data Interchange sage are influenced by the inability to control consumer retailer initiation transactions and the lack of disturbing data. However, the collected data justified its critical role in the accounting system; thus, challenges can be solved if the auditing department and control procedure is employed in the organization.

Justifying from the case studies, the Raiffeisen Banking system that embraces the Electronic Data Interchange technique amplifies the bank's position in Europe against other competitors. More clients request mobile banking, a safe and discrete form of exchanging cash. The method is fast and cheap. The impact brought tremendous significance making the firm grow immensely in collecting maximum profits. With the help of Garanti Bank, the machine is now used to pay for two thousand places online and face-to-face (Seetharaman, Chee and Saravanan, 2023). The number of people willing to use contactless payments is growing so fast. The client can spend all their bills by scanning a code from a single app, a process that reduces transaction fees. S.E.Q.R. is the world's largest payment supplier transaction media across twenty-six nations. It conducts one billion transactions across five hundred and twenty-five thousand marketing outlets (Schoenherr and Schoenherr, 2019, p.34). More than six thousand two hundred entrepreneurs use the Electronic Data Interchange system in their dealings, including the most prominent restaurants, national retailer marketing chains, and fast-food chains.

Justification From One of the Selected Case Studies to Show the Result of Electronic Data Interchange on Romania's Global Economic Shutdown

Romania uses advanced information technology and electrical data interchange in its accounting systems. It helps them to evaluate the data between the accounting platform. Anthony and colleagues conducted a study that evaluated various automatic artificial intelligence applications' performance to have a seventy-seven to ninety-five percent accuracy. The machine can function without any evaluation (Andrei and Brezeanu, 2019, p.186). Human intervention by recognizing the transactions. Here are the accounting digital automatic platforms powered by artificial intelligence used in Romania; One-up, QuickBooks, Xero, and Sage One are the applications Anthony evaluated. Romania's accounting system can now provide efficient services to its client due to the wide use of this overall development of artificial applications. According to Riva and Gudele, since accounting is a computerized field like the accounting profession, both shall experience more remarkable changes in Romania in 2022

(Sbarcea, 2019, p.221). The World Economic Forum research concluded that accounting is highly impacted by the computerized system and vice versa (Rivza and Gudele, 2019). Accountancy is advised to adopt and restructure toward digitizing the accounts system as ninety-seven percent of the system activities are downing into computerized techniques. Research conducted by C.E.C.C.A.R. demonstrated the impact of information technology in Electrical data interchange, how it forced changes in accounting activities, and changes in the accounting profession, explaining how the department ended up being innovative by reconsidering its approach through the establishment of accounting platforms.

For accountants to be effective, they must accomplish duties on time and remember to provide timely and accurate information to dealers and suppliers (Sbarcea, 2019, p.222). Researchers observed positive impacts on the company improving general company progress rendering it opting favor before its competitors simply by adopting electrical data interchange, a modern digital technique (Hartmann and Cautisanu, 2021, p.9315). According to Kinnunen, Romania's accounting system improved its accounting expedited through electrical data interchange technology. Besides the quality of the information, the data preparation and its relevancy ameliorated significantly (Kinnunen, Androniceanu, and Georgescu, 2019, p.12). Electronic Data Interchange reduces preparation time and delivery time. The day-day consultation activities of the business operation speed up, all thanks to E.D.I. Other researchers found that Electronic Data Interchange allows the accounting professional to concentrate on other unstructured business activities-routine, besides having more time to be involved in other creative-related works that need more thinking (Schoenherr and Schoenherr, 2019, p.33). For the older generation who have worked for a long in this accounting section, their shift and perception will be lessened with the change.

Romania banks have incorporated a new accounting model. Adopting Electronic Data Interchange technologies and e-transformation has upgraded the expansion of digitization in the account, the ongoing digital trend in the accounting world. Banks in Romania are more willing to transfer their accounting farms, a difficult thing they could be willing to do in the recent past. Besides easy access to facial data, Cloud-based services have encouraged the possibility of this activity (Seetharaman, Chee and Saravanan, 2023). As more accounting companies embrace this technological breakthrough, manual data entry has decreased. The data quality, accuracy, and speed have increased with E.D.I., thus improving the company's overall performance. By understanding the philosophy, mathematics, and technology behind Electrical data interchange between Romania banks, the accounting will be able to keep up with the high competition in the business world (Sbarcea, 2019, p.225). Accountants need to keep up with

the emerging technological advancement trends for the overall success of the accounting system. Accounting professionals must use upcoming specialized goods, incorporating the practical and theoretical understanding of Electronic Data Interchange for effective results.

The use of Electronic Data Interchange Between Banks and Big Data Accounts

Due to the increased trend from the results shows how people across the world are embracing the Electronic Data Interchange used in their business to be able to overlook the challenges (Bonsón and Bednárová, 2019, p. 745). The recent use of E.D.I. and Big data in accounting systems have been effective despite the surge. Electronic Data Interchange is an electric application with the aid of A.I. it can solve various accounting problems by rebooting the work and helping managers concentrate on decision-making (Rashawn and Alhelou, 2020, p.120). Electronic Data Interchange is an appropriate business model for H.R. management, budget planning, inventory management, and budget planning (Nezhyva and Miniailo,2020, p.129). Over the years, companies have been using the Resource-Based View Theory, E.D.I., and A.I., and Big Data has been the time-saving cheaper accounting assets that are effective in the accounting section.

Electronic Data Interchange Challenge

The challenge with Electronic Data Interchange is that it necessitates a substantial investment in infrastructure and technology, in addition to a high level of standardization and cooperation among trade partners (Maçada et al., 2021, np). Additionally, adopting Electronic Data Interchange systems by small and medium-sized organizations may be challenging due to their complexity and difficulty in integrating with current methods (Al-Okaily, 2022). Furthermore, EDI security is a serious problem since the shared, sensitive corporate data is open to hackers and cybercrime (Mosteanu and Faccia, 2020, p.160). Electronic Data Interchange may be costly to adopt and maintain. The expenses might be prohibitive for smaller organizations that do not have the means to invest in the necessary equipment. Due to the more significant impact Electronic Data Interchange has on artificial intelligence and its implications on extensive data management. The cost of purchasing E.D.I. is prohibitive in that there is a need for the managers to make sure vendors and suppliers can use this system before buying it. But from the existing studies and the collected data analyzed, they still predict the pace of adopting EDI among organizations in their accounting systems.

CONCLUSION

Electronic Data Interchange is the future of accounting systems due to its relevant role in enabling global collaboration and easy data transfer by eliminating a lot of paperwork that was limiting several organizations. The adoption of Electronic Data Interchange in accounting systems is continually changing how people think. The adoption also extends to changing business procedures and organization interactions financially (Bonsón and Bednárová, 2019, p. 740). Thus, for efficient performance, the relevant professionals in accounting systems must understand the strengths and potential of EDI (Möller, Schäffer, and Verbeeten, 2020, p.6). In justifying the theoretical gap where some studies indicate the disadvantages of EDI due to challenges in decision making, this can be solved by mastering the automation control and ensuring there is effectiveness in sharing accounting information. The results show rapid adoption of Electronic Data Interchange in accounting systems since several organizations are making progressive market sizes, as predicted.

More research is needed to shed light on a better understanding of the Electronic Data Interchange adoption in the accounting system. The limitation of the study is exploring the challenges posed by fully adopting EDI, which helps to fully justify the positive role of the accounting systems (Möller, Schäffer and Verbeeten, 2020, p.7). Also, the technology landscape is constantly changing, making it challenging to keep up with the latest developments and trends. Finally, the data was limited by privacy and security concerns which restricted the collection and use of data. A case study on an industry-wide investigation into the effectiveness of E.D.I. technologies in a certain intertwined could be undertaken. More economic analyses should be conducted to assess the influence of Electronic Data Interchange on account settings, including the banks led in industrialized, rising, and developing nations.

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