

-RESEARCH ARTICLE-

## VALUE CHAIN, INFORMATION TECHNOLOGY AND INTERNET NETWORKS INFLUENCES ON ADOPTING ELECTRONIC TICKET BOOKING ACTIVITY AND ITS ROLE IN COST REDUCTION

**Zaid Raad Anwar**

AL-Iraqia University, Iraq

Email: [Zaid.r.anwer@aliraqia.edu.iq](mailto:Zaid.r.anwer@aliraqia.edu.iq)

### —Abstract—

Given this is something that has proved to be a success factor for modern airlines, exploring the same in contemporary research would not be irrelevant either. This study, therefore, looks at how value chain technology, information technology, and internet networks influence consumer behavior in adopting electronic ticket-booking in Iraq. Apart from that, this study also explores how cost reduction mediates the association of the value chain technology, information technology, internet networks, and the adoption of electronic ticket bookings. The data were collected through questionnaires for airline customers in Iraq. Smart-PLS was used to verify the reliability of data and to investigate the relationships among the variables. The results identified that the association of value chain technology, information technology, and internet network was positively associated with the adoption of electronic ticket booking. Additionally, it has been cleared that cost reduction significantly mediates the relations of those factors towards the adoption of electronic ticket booking. The study makes valuable inputs to the regulator agencies to formulate policies that encourage customers to adopt electronic ticket booking through efficient use of value chain technology, information technology, and strong internet networks.

**Keywords:** Value Chain Technology, Information Technology, Internet Networks, Electronic Ticket Booking, Cost Reduction

### INTRODUCTION

The rapid advancements in technology have led to the increasing digitalisation of business operations. Commercial entities now not only utilise technology for managing

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business operations and production processes but also recognise its potential in advertising and marketing products and services (Kuncara et al., 2021). Certain businesses, particularly those in sectors such as travel, tourism, recreation, education, cinema, and accommodation, require customers to book tickets, reserve seats or rooms, and arrange for additional services or refreshments. The process of acquiring these services can be complex and time-consuming, like the purchase of goods. Traditionally, booking tickets for such services involves a cumbersome procedure.

However, electronic ticket booking—conducted via digital devices such as computers addresses the inefficiencies inherent in traditional methods (Puthur et al., 2020). This system eventually lessens the customer's desire to pay recurrent visits to service providers or their representatives for information gathering, ticket purchase, and seat or room confirmation. Online ticketing systems streamline the process, benefiting both businesses and customers. Businesses save on staffing, stationery, and physical booking stations, while customers enjoy the convenience of booking anytime, anywhere. This digital shift also reduces environmental impact by minimizing travel and paper usage. The combination of convenience, cost savings, and eco-friendliness drives customer adoption, ultimately contributing to economic growth (Lee et al., 2019).

The adoption of E-ticket booking is shaped by a myriad of key factors, such as value chain technology, IT, and internet networks. The value chain is thoughtfully seen as the journey of a product or service, from sourcing raw materials to production, use, and eventual recycling or disposal, with added value at every stage. Value chain technology plays a crucial role by integrating tools like process automation, research and development, and technological innovations to enhance these activities. For companies that offer ticketed services, embracing these technologies transforms how they operate and market their offerings. It allows them to go beyond simply selling services, they can now connect directly with customers, shaping their purchasing decisions. This shift has paved the way for electronic methods of introducing services and booking tickets, making the process more efficient and customer-focused.(Sodhi & Tang, 2021).

Information technology refers to the processes involved in searching for, acquiring, processing, using, storing, and sharing information using electronic devices, computer-based technologies, internet resources, software, and programming technologies. The integration of information technology enhances management's understanding of modern demands, leading to improvements in products, services, and delivery methods. As a result, companies are more likely to adopt electronic solutions for customer ticket booking (Verhun et al., 2022). Internet networks are the global systems of interconnected computerized devices, servers, smart devices, phones, and electronic gadgets that communicate using the transmission control protocol (TCP) standard to facilitate rapid file and information exchange. These networks also support services such as time synchronisation, directory services, e-commerce, online transactions,

search engines, and network management. Companies with effective internet networks can expand their communication reach, better influence customer intentions, and enhance the adoption of electronic ticket booking ([Hakimov et al., 2021](#)).

The present study focuses on electronic ticket booking within Iraqi Airways. Iraq, classified as a developing country with an upper-middle-income economy, is home to Iraqi Airways, the national airline service provider. The headquarters of Iraqi Airways is situated at Baghdad International Airport. As the second oldest airline in the Middle East, Iraqi Airways offers both regional and domestic services, with Baghdad International Airport serving as its primary hub. Since the resumption of operations in 2003, the airline has expanded to operate 10 international routes across Asia, Africa, and Europe, in addition to five domestic routes. However, seven international routes were discontinued following this period ([Shubbar & Shabban, 2022](#)). The airline was instructed to cease operations on 26 May 2010, largely due to compensation claims from Kuwait related to the Gulf War. Despite this, Iraqi Airways continues to maintain operations on regional and domestic routes. As of 2023, the Iraqi Airways fleet consists of fifty-eight aircraft, including the Airbus A220-300, Airbus A320-200, Airbus A321-200, Airbus A330-200, Boeing 737-800, Boeing 737 MAX 8, Boeing 737 MAX 10, Boeing 777-200LR, Boeing 787-8, Boeing 787-9, and Bombardier CRJ-900LR ([Maarroof et al., 2022](#)). In the first five months of 2024, the airline reported over \$92 million in sales and profits, reflecting a significant 89% increase compared to the same period in the previous year. Additionally, Iraqi Airways has implemented online technology for ticket booking, providing digital solutions for its customers ([Boutros & Muhammad, 2022](#)).

Iraqi Airways is a rapidly emerging sector within the economy, recording substantial revenues and notable advancements in technology, including the adoption of electronic ticket booking. However, its market share remains limited, which raises uncertainties about its future growth prospects. The present study aims to illuminate the future trajectory of Iraqi Airways by examining strategies to encourage greater adoption of electronic ticket booking among customers. The primary objective of the study is to explore the impacts of value chain technology, information technology, and internet networks on the adoption of electronic ticket booking. Additionally, the study seeks to assess the role of cost reduction as a mediating factor between these influences.

This study makes several important contributions to the literature. First, while previous research has examined the individual effects of value chain technology, information technology, and internet networks on electronic ticket booking, this study provides a combined analysis of these factors. Second, few studies have explored the role of cost reduction as a mediator between these factors and electronic ticket booking, making this study a significant addition. Third, the study stands out by testing its model within the context of Iraqi Airways, an area not extensively covered in existing literature. The

current study is structured into five parts. The second part reviews the relevant literature to formulate hypotheses regarding the relationships between value chain technology, information technology, internet networks, cost reduction, and electronic ticket booking. The third part outlines the research procedures, followed by the presentation of the results in the fourth part. In the fifth part, the findings are compared with similar studies to validate the results. Finally, the study discusses its implications, concludes, and highlights its limitations.

## LITERATURE REVIEW

Existing literature has explored the roles of technical factors such as value chain technology, information technology, and internet networks in cost reduction and electronic ticket booking. However, researchers have approached the relationships among these factors from various perspectives, yielding diverse findings. Several studies are reviewed in the following sections to establish the research hypotheses.

As value chain technology becomes increasingly popular among businesses, it enhances the quality of resources and improves employee efficiency in service delivery. This, in turn, accelerates the digital transformation of sectors such as tourism, travel, transportation, and social entertainment. The adoption of digital methods for advertising and ticket sales leads to a rise in electronic ticket booking, as consumers seek convenient solutions to meet their needs. Thus, the use of value chain technology causes increased E-ticket bookings (Shen & Sun, 2023). A study by Adam et al. (2020) went farther into the relationship among value chain technology, digital marketing platforms, customer satisfaction, customer loyalty, and using of E-ticket booking. The research, conducted with SMEs in Indonesia using structured questionnaires, aggravatingly found that when technology is employed to streamline and unequivocally aid resource flow across firms, employees would undoubtedly become more adept at using digital technologies. Such firms relatedly leverage digital marketing platforms to engage with customers online, offering benefits such as security, ease of interaction, and cost and time savings. This, in turn, boosts customer satisfaction and fosters a positive attitude to E-transactions, encouraging the use of E-ticket booking. Sundaram et al. (2020) examined the association among value chain technology, digital marketing, and E-ticket booking through a systematic literature review. The study suggests that value chain technologies will apparently facilitate closer connections among individuals and organizational personnel through digitalisation, admittedly enabling companies in sectors like recreation, travel, and information services to provide online access for customer interactions. This undoubtedly enhances the possibility of customers engaging in E-ticket bookings. Therefore, we hypothesized that,

**H1:** *Value chain technology has a positive influence on adopting electronic ticket booking.*

Information technology (IT) categorically provides the knowledge and channels necessary for worldwide interactions, when required. Improving such connections unequivocally boosts the capability to make tasks via innovative technologies, which interestingly facilitates E-interactions with companies for ticket purchasing. So, the use of IT characteristically promotes the advancement of E-ticket booking. A study by [Marquez et al. \(2020\)](#) dived into the relationship among IT, customers' online buying intentions, and E-ticket booking. The study surveyed 523 American football spectators over 12 games using a paper-and-pencil method, with data analysis performed through structural equation modelling (SEM) and Confirmatory Factor Analysis (CFA) using Mplus 8.1, SPSS, instead, was adopted for descriptive statistics. The findings suggest that increasing the use of IT by organisational management and personnel can extensively provide valuable insights into market trends, customer preferences for innovative technologies, and effective online platforms for sales. This tremendously makes it easier to implement E-ticket booking.

[Phalitnonkiat and Chewwasung \(2018\)](#) further explored the association among IT, customers' online buying intentions, and E-ticket booking, applying the Technology Acceptance Model (TAM) theory to assess the way IT use affects customer behaviour towards electronic ticket booking. A survey was meticulously made with 394 respondents from the millennial generation, all of whom had experience purchasing online entertainment tickets. The causal relationships among factors were analysed via the Structural Equation Modelling (SEM) approach. The study concluded that information technology enhances the ability to search for and communicate with a broader customer base. It also improves company representatives' capacity to influence customer attitudes towards purchasing services and using electronic means for this purpose. As a result, this drives the adoption of electronic ticket booking. Therefore, we hypothesized that,

**H2:** *Information technology has a positive influence on adopting electronic ticket booking.*

The right internet network, offering fast speed, reliable communication, and wide coverage, enables users to benefit from innovative technologies and stay virtually connected. This increases users' engagement in online transactions, thus boosting electronic ticket booking. Therefore, the availability of a good internet network enhances the frequency of electronic ticket bookings ([Shaheen et al., 2020](#)). [Hadjielias et al. \(2022\)](#) evaluated the relationship between digitalisation, internet networks, agility, customer value, customer satisfaction, and electronic ticket booking through in-depth interviews with 34 managers in Cyprus. The study involved tourism service providers such as travel agencies, consultants, tour operators, and hotels, analysing internet networks like email, teleconferencing, online booking platforms, social media, and the World Wide Web. It suggests that using diverse internet networks improves

communication, helping companies connect with clients across regions and motivate them to book tickets electronically. [Ganesh and Prabu \(2020\)](#) argue that a strong internet network allows managerial staff to access valuable online platforms and information, enhancing their capabilities and enabling them to create online platforms that attract customers and facilitate electronic ticket booking from home. Therefore, we hypothesized that,

**H3:** *Internet network has a positive influence on adopting electronic ticket booking.*

Adopting the technology of value chain freely opens the door for firms to operate more efficiently, significantly reducing costs related to short lead times, inventory handling, material defects, and supplier procurement. This cost reduction directly enhances the financial stability of firms, encouraging them to provide electronic customer services, including the ability for customers to easily book tickets online ([Sarc et al., 2019](#)). [Foster et al. \(2018\)](#) interestingly examined the use of digital technologies in value chains and their impact on E-ticket booking. A comprehensive qualitative study was conducted in Rwanda and Kenya, involving 264 interviews across sectors such as tourism, tea, and business process outsourcing. The study found that companies offering recreational, medical, or travel services, when actively collaborating with suppliers focused on quality, can adopt innovative technologies that significantly reduce costs. This enables these firms to seamlessly engage in online transactions, thereby effectively promoting electronic ticket booking. [Li \(2020\)](#) asserts that value chain technology not only notably reduces business expenditures but also consistently improves service quality. The savings generated can be strategically reinvested to expand the business online, providing customers with affordable services and strongly creating incentives for electronic ticket booking. Thus, cost reduction serves as a critically important link between value chain technology and E-ticket booking. Hence, we hypothesized that,

**H4:** *Cost reduction is a significant mediator between value chain technology and adopting electronic ticket booking.*

The use of information technology enhances a company's ability to address business challenges and access higher-quality resources. By leveraging this knowledge, management can improve operational efficiency and control excessive costs. The resulting cost reduction allows organisations to allocate financial resources more effectively, particularly towards better marketing practices. Companies that strategically invest in digital tools, skilled sales teams, and advanced software are in a stronger position to engage with customers virtually and effectively encourage electronic transactions. As a result, businesses in sectors like travel, education, and leisure are increasingly likely to see an increase in online ticket bookings. Cost reduction plays a crucially key role here, acting as a bridge between the use of information technology and E-ticket booking ([Jeon et al., 2019](#)) . [Li \(2020\)](#) explored

how information and communication technology (ICT) tools straightforwardly impact people's intents as well as behaviors regarding online ticket booking. The study gathered data from 254 internet users through a structured questionnaire and analysed the results thoroughly using AMOS® 20.0 software. Findings revealed that information technology helps companies make better use of their human, financial, and material resources, enabling them to produce more while significantly keeping costs low. These savings, in turn, directly support the digitalization of operations and drive growth in online ticket sales. Similarly, [Saleem et al. \(2019\)](#) clearly emphasized that the increasing reliance on information technology encourages management to gradually shift their focus toward adopting electronic platforms for ticket sales. Therefore, we hypothesized that,

**H5:** *Cost reduction is a significant mediator between information technology and adopting electronic ticket booking.*

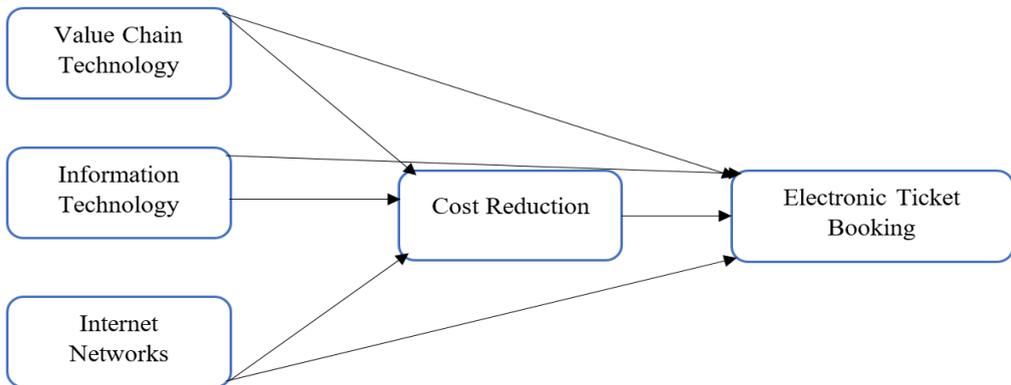
An active internet network give permission to companies to make up deep, continuous, and seamless connections with others. Such connections are both informative and supportive, assisting users gain knowledge while enabling them to share views and messages. This level of connectivity helps businesses streamline operations and reduce overall costs. With these cost savings, companies can invest in digital technology teams and further increase E-ticket bookings ([Ahmad et al., 2020](#)). [Guan et al. \(2020\)](#) explored the role of internet networks in reducing costs and promoting electronic ticket booking. Employing railway service providers in China as a case study, they applied structural equation modelling to analyse data and test their research hypotheses. The study found that internet platforms, such as social media, email, websites, and teleconferencing, facilitate effective communication with stakeholders, which positively influences decision-making processes. This improved connectivity enhances business operations and lowers costs. The resulting savings encourage companies to adopt digital technologies and promote electronic ticket booking. Similarly, [Branda et al. \(2020\)](#) emphasized that internet networks make customer interactions more cost-effective compared to face-to-face meetings. These cost reductions allow companies to offer services at competitive rates, which in turn encourages customers to book tickets online. Thus, we hypothesized that,

**H6:** *Cost reduction is a significant mediator between internet networks and adopting electronic ticket booking.*

## RESEARCH METHODS

The influence of value chain technology, information technology, and internet networks on adopting electronic ticket booking, with cost reduction as a mediating variable between these factors and customers' adoption of electronic ticket booking in Iraq, has

been examined in this study. To gather insights, data was carefully collected through questionnaires distributed to airline customers across the country. The study measured key variables using specific items from previous research: value chain technology (four items, (Alexander et al., 2020)), IT (six items, (Rehman et al., 2020)), internet networks (six items, (Peris et al., 2020)), cost reduction (five items, (Sanders et al., 2021)), and adopting E-ticket booking (four items, (Puthur et al., 2020)). The respondents were actual customers of airlines in Iraq selected through a random sampling method. For ensuring participation, questionnaires were distributed personally in airports. From 609 questionnaires distributed, 357 usable responses were returned for a very reasonable response rate of 58.62%. The software used for the analysis was Smart-PLS. This tool is known for its strong and reliable results, especially when working with primary data and large datasets (Hair Jr et al., 2020). The study identifies value chain technology (VCT), information technology (IT), and internet networks (IN) as independent variables, while cost reduction (CR) plays the role of a mediator, and the adoption of electronic ticket booking (ETB) serves as the dependent variable. These relationships are illustrated clearly in Figure 1.



**Figure 1:** Theoretical Model

The respondents were, in fact, customers of airlines taken in Iraq, and such people were selected using snow-ball sampling. The researcher intended to distribute the paper copy of the surveyor on a personal visit because his target respondents would be identified upon their visit to the specific airports. A total response of 609 copies was mobilized, out of which, 357 valid results of responses were obtained entailing a response rate in magnitude of 58.62%. Reliability/data; and the relationship among studied variable has utilized the Smart-PLS; it provides robust of the results with both primaries along with large data-sets end (Hair Jr et al., 2020). The independent variables in the study include value chain technology (VCT), information technology (IT), and internet networks (IN), with cost reduction (CR) serving as the mediating variable and adopting electronic ticket booking (ETB) as the dependent variable. These constructs are illustrated in Figure 1.

## RESEARCH FINDINGS

The results of measurement model in [Figure 1](#) show the correlation among items, known as convergent validity, which was assessed via composite reliability (CR) and Cronbach's Alpha. Both measures yielded values greater than 0.70, showing strong reliability. Nonetheless, convergent validity was further examined via average variance extracted (AVE) and factor loadings, with both tests showing values above 0.50. These findings suggest a high level of correlation between the items. [Table 1](#) presents these outcomes.

**Table 1: Convergent Validity**

Constructs	Items	Loadings	Alpha	CR	AVE
Cost Reduction	CR1	0.872	0.857	0.898	0.641
	CR2	0.807			
	CR3	0.859			
	CR4	0.800			
	CR5	0.645			
Electronic Ticket Booking	ETB1	0.770	0.794	0.866	0.618
	ETB2	0.794			
	ETB3	0.795			
	ETB4	0.785			
Internet Networks	IN1	0.889	0.879	0.909	0.627
	IN2	0.838			
	IN3	0.747			
	IN4	0.680			
	IN5	0.749			
	IN6	0.830			
Information Technology	IT1	0.882	0.922	0.939	0.720
	IT2	0.864			
	IT3	0.799			
	IT4	0.804			
	IT5	0.876			
	IT6	0.862			
Value Chain Technology	VCT1	0.806	0.879	0.917	0.734
	VCT2	0.862			
	VCT3	0.907			
	VCT4	0.849			

The results demonstrate the correlation among variables, referred to as discriminant validity. This validity was assessed using the Fornell-Larcker criterion and cross-loadings. Both tests indicate that the values representing the correlation with the construct itself are higher than those representing the correlation with other constructs. These findings suggest a low correlation between variables. [Tables 2](#) and [Table 3](#) present these outcomes.

**Table 2: Fornell Larcker**

	CR	ETB	IN	IT	VCT
CR	0.801				
ETB	0.664	0.786			
IN	0.521	0.655	0.792		
IT	0.454	0.600	0.476	0.848	
VCT	0.461	0.624	0.602	0.530	0.857

**Table 3: Cross-Loadings**

	CR	ETB	IN	IT	VCT
CR1	0.872	0.604	0.488	0.374	0.441
CR2	0.807	0.495	0.417	0.289	0.351
CR3	0.859	0.536	0.366	0.373	0.330
CR4	0.800	0.459	0.324	0.298	0.273
CR5	0.645	0.525	0.450	0.451	0.411
ETB1	0.540	0.770	0.527	0.444	0.502
ETB2	0.668	0.794	0.430	0.459	0.519
ETB3	0.440	0.795	0.557	0.521	0.449
ETB4	0.422	0.785	0.554	0.464	0.488
IN1	0.430	0.595	0.889	0.428	0.578
IN2	0.383	0.537	0.838	0.432	0.506
IN3	0.469	0.424	0.747	0.308	0.382
IN4	0.395	0.451	0.680	0.326	0.376
IN5	0.439	0.571	0.749	0.393	0.491
IN6	0.350	0.509	0.830	0.358	0.501
IT1	0.416	0.545	0.405	0.882	0.471
IT2	0.429	0.532	0.403	0.864	0.450
IT3	0.389	0.525	0.393	0.799	0.437
IT4	0.336	0.449	0.448	0.804	0.465
IT5	0.373	0.510	0.398	0.876	0.451
IT6	0.355	0.483	0.384	0.862	0.428
VCT1	0.291	0.466	0.507	0.457	0.806
VCT2	0.383	0.566	0.552	0.449	0.862
VCT3	0.458	0.568	0.531	0.493	0.907
VCT4	0.427	0.528	0.476	0.421	0.849

Moreover, the results demonstrate the correlation among variables, known as discriminant validity. This validity was assessed using the Heterotrait-Monotrait (HTMT) ratio, and the test shows that the values are below 0.90. These findings indicate a low correlation between the variables. [Table 4](#) and [Figure 2](#) presents these outcomes.

**Table 4: Heterotrait Monotrait Ratio**

	CR	ETB	IN	IT	VCT
CR					
ETB	0.790				
IN	0.592	0.783			
IT	0.502	0.699	0.528		

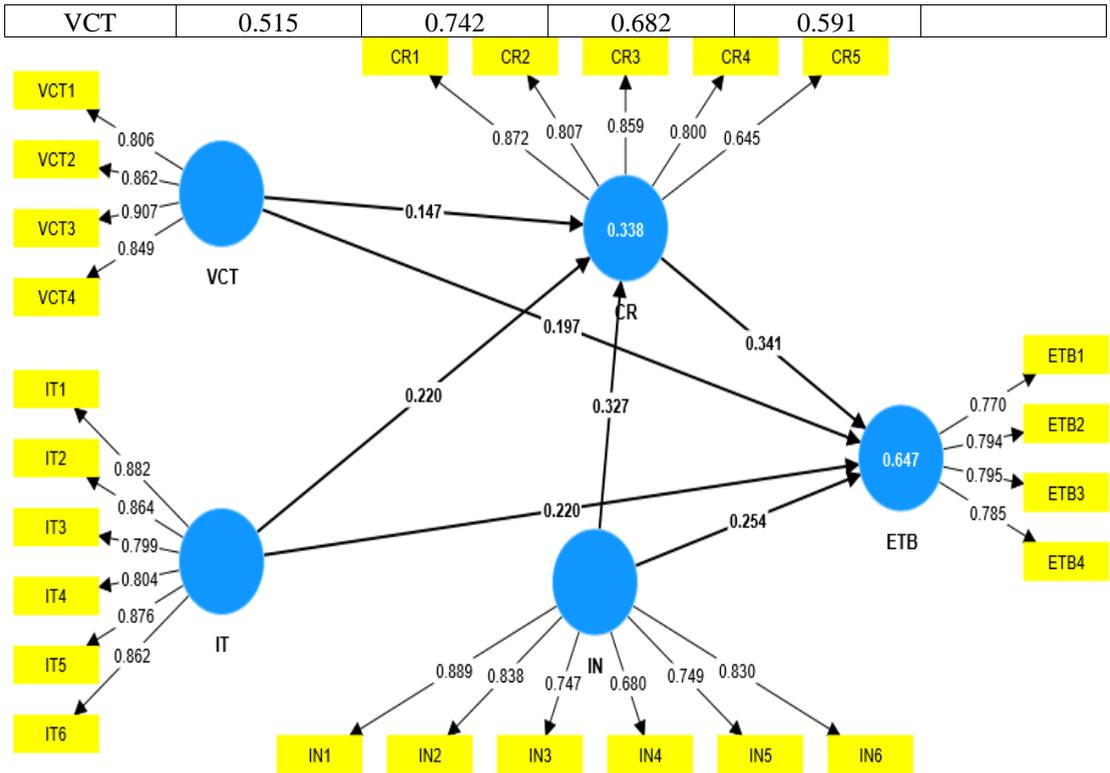


Figure 2: Measurement Model Assessment

Additionally, the results of the direct path analysis reveal the direct associations among the variables. The outcomes indicate that value chain technology, information technology, and internet networks have a positive relationship with the adoption of electronic ticket booking by customers in Iraq, thereby supporting hypotheses H1, H2, and H3. These associations are presented in Table 5 and Figure 3.

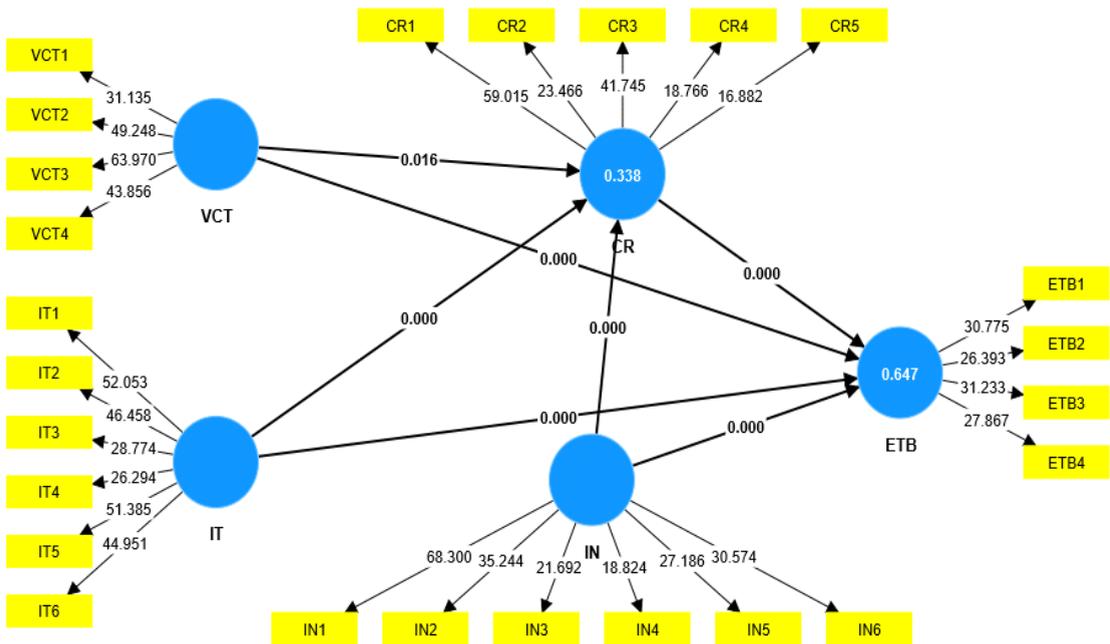
Table 5: Direct Path Analysis

Relationships	Beta	Standard Deviation	T Statistics	P Values
CR -> ETB	0.341	0.049	7.022	0.000
IN -> CR	0.327	0.070	4.696	0.000
IN -> ETB	0.254	0.054	4.688	0.000
IT -> CR	0.220	0.057	3.884	0.000
IT -> ETB	0.220	0.042	5.204	0.000
VCT -> CR	0.147	0.061	2.406	0.016
VCT -> ETB	0.197	0.047	4.144	0.000

The study results clearly show how these factors are all connected. The results strongly suggest that cutting costs is an important link between value chain technology, information technology, and internet networks, and getting people to use electronic ticket booking in Iraq. This strongly supports the hypotheses H4, H5, and H6. You can see these connections in Table 6.

**Table 6: Indirect Path Analysis**

Relationships	Beta	Standard Deviation	T Statistics	P Values
IN -> CR -> ETB	0.112	0.031	3.642	0.000
IT -> CR -> ETB	0.075	0.022	3.446	0.001
VCT -> CR -> ETB	0.050	0.023	2.166	0.031



**Figure 3: Structural Model Assessment**

**DISCUSSION**

The results apparently illustrate that the technology of value chain has a positive impact on adopting E-ticket booking. [Holmström et al. \(2019\)](#) state that using technology throughout the value chain can to some extent boost research and development, leading to new E-marketing methods and easier E-ticket booking. [Zand et al. \(2019\)](#) suggest that value chain technology can undoubtedly make people more comfortable with technology and encourage them to use electronic ticket booking. [Thilmay et al. \(2021\)](#) highlight that integrating technology into value chain management can improve

company operations and make it easier to offer electronic ticket booking services. The study's findings reveal that information technology positively influences the adoption of electronic ticket booking. This is supported by [Shafique et al. \(2019\)](#), who argue that the use of IT probably enhances companies' ability to reach consumers, thereby increasing the potential for E-ticket bookings. Similarly, [Putri et al. \(2019\)](#) suggest that the growing use of IT informs users about various recreational and travel deals, enabling seamless interaction with service providers and encouraging E-ticket bookings.

These results are also consistent with [Subramanya et al. \(2022\)](#), who highlight that adoption of IT allows companies to implement innovative channels for attracting customers, further boosting E-ticket bookings. [Kumar et al. \(2020\)](#) found that internet networks help companies reach more customers, improve communication, and build stronger relationships. This makes customers more likely to choose E-ticket booking. [Subramanya et al. \(2022\)](#) believe that internet networks allow companies to share information about their services, offers, and purchasing methods with a wider audience. This can encourage more people to book tickets online. [Tripathi et al. \(2022\)](#) emphasize that choosing the right internet network can help companies reach more customers and increase online ticket bookings. The study results strongly suggest that cutting costs is a really important factor in getting companies to adopt electronic ticket booking, especially when it comes to using value chain technology. [Modak and Kelle \(2019\)](#) believe that using value-adding technologies can significantly improve employee knowledge and skills, making them much more efficient at their jobs. This dramatically reduces costs for the company. With lower costs, companies can more easily run online sales platforms and encourage customers to book tickets electronically. [Min et al. \(2019\)](#) highlights the role of value chain technology in making electronic ticket booking more popular. They suggest that using value chain technology can significantly reduce costs across the entire process, making it much easier for companies to adopt electronic ticket booking. [Reinartz et al. \(2019\)](#) emphasize that value chain technology can help companies manage their operations more effectively and reduce costs. This, in turn, makes it much easier for companies to adopt electronic technologies, including electronic ticket booking.

The research results undoubtedly show that cutting costs is a really important factor in getting companies to adopt electronic ticket booking, especially when it comes to using information technology. [Jeng \(2019\)](#) strongly believes that using information technology can really boost employee efficiency, which in turn significantly reduces costs. With lower costs, companies can much more easily manage their online sales and quickly start offering electronic tickets. [Arifin and Setyaudhi \(2023\)](#) think that integrating information technology can helpfully reduce costs for companies, making them much better at handling electronic ticket booking. [Shpak et al. \(2020\)](#) emphasizes that cost reduction, made possible by information technology, is essential for promoting the use of electronic tickets.

The study results clearly indicate that cost reduction acts as a highly significant mediator between internet networks and the adoption of E-ticket booking. These findings are strongly supported by [Christou and Chatzigeorgiou \(2020\)](#), who convincingly argue that internet networks significantly raise awareness about valuable resources and trustworthy suppliers, helping companies dramatically cut business costs. The money saved can then be wisely reinvested into significantly improving the marketing of service tickets electronically. These results are also closely aligned with [Happ and Horváth \(2020\)](#), who persuasively suggest that when organizational personnel are highly proficient in using internet networks, costs related to production and service marketing can be dramatically reduced, which in turn significantly boosts the popularity of electronic ticket booking. Additionally, these findings strongly resonate with [Luo \(2021\)](#), who forcefully asserts that by fully leveraging internet services, companies can greatly enhance their research and development programs while effectively controlling business costs. The reduction in costs creates the perfect opportunity for implementing electronic ticket booking.

## IMPLICATIONS

This study is especially important for economies like Iraq, particularly when it comes to marketing airline tickets. It offers valuable insights and practical guidelines for companies in industries like cinema, sports, tourism, and transportation to significantly boost the adoption of electronic ticketing. The study strongly encourages management to fully embrace value chain technologies and adopt innovative information technologies to make online ticket sales much more efficient. It also wisely suggests carefully selecting the right internet networks to cut costs and encourage more customers to book tickets electronically. By effectively utilizing value chain technologies, companies can reduce costs and provide seamless electronic ticketing services, ultimately making it easier for customers to access and use digital booking options.

## CONCLUSION

This study has identified the link among value chain technology, IT, and internet network on the ticket's E-reservation, where cost reduction had the mediating role. In testing the hypotheses, data from Iraqi airlines companies had been used. The results reflect the positive bearing of value chain technology, IT, and internet network on the E-ticket booking. Value chain technology helps firms improve their operations and advertise their services digitally, thereby creating awareness among customers towards increasing their intention to adopt E-ticket booking. The study also outlines that increased use of information technology by companies helps them to know the customer

needs and market trends, promoting electronic means of booking. Similarly, increased adoption of effective internet networks has also promoted companies to expand their geographical reach by encouraging people to book tickets electronically. The study observes that cost reduction is a huge mediating variable between value chain technology, information technology, internet networks, and electronic ticket booking because these technologies are cost-effective and helped in bringing down the cost of shifting towards electronic ticket services.

## LIMITATIONS

Limitations of the current study include the following. First, it has a limited research framework because this study shall be concerned with researching only the technical factors-in this case, value chain technology, information technology, and the internet network-on how they play their role in adopting electronic ticket booking. Other factors dealing with marketing capability, influence of the company's influencers, and how human resources are managed were not addressed in the present study. Future research can also explore how all these factors influence electronic ticket booking in more detail. This study also established the mediating effect of cost reduction of value chain technology, information technology, and internet networks in the electronic ticket-booking process. Future studies should be more elaborate in presenting the results with the inclusion of moderators in the model for better comprehension.

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