

## Article

# Proposing a Framework for the Digital Transformation Maturity of Electronic Sports Businesses in Developing Countries

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**Abstract:** Digital transformation has become the top priority for 80% of sports companies worldwide, but statistics show that between 70 and 95% of all digital transformation projects fail due to the significant and varied challenges that sports businesses face during the digital transformation process. This is because strategy, not digital technology, drives digital transformation, and without a mature digital transformation model, success is unlikely. Moreover, the digital transformation model of developing and developed countries is not the same, and it cannot be adopted as a blueprint. Therefore, the aim of this research was to propose a framework for the digital transformation maturity of electronic sports businesses in developing countries. Semi-structured interviews were conducted with a sample of 15 stakeholders of electronic sports businesses in Iran. Thematic analysis was used to analyze the interviews, and three main perspectives were identified: (1) enablers, (2) digital resilience and capabilities, and (3) digital transformation maturity stages. The enablers were formed by six sub-themes, including governance and leadership, strategy, culture, and skills, innovation, technology, and data. Digital resilience and capabilities were formed by four sub-themes, i.e., business model and ecosystem, digital customer experience, digital employee experience, and digital processes. Additionally, it was found that the digital transformation maturity stages were based on four stages: digital beginners, digital followers, digital conservatives, and digital leaders. The findings indicate that moving towards digital transformation and achieving digital resilience in electronic sports businesses will be impossible without synergy between enablers and digital resilience and capabilities. This framework can be useful for electronic sports businesses to evaluate their current digital status and effectively guide them towards a desirable digital status. Furthermore, electronic sports businesses can prioritize their efforts and resources for digital transformation by focusing on targeted capabilities and enablers and ensure the more effective and efficient allocation of resources towards digital transformation.

**Keywords:** digital transformation; digital maturity; electronic sports businesses; digital resilience; thematic analysis



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## 1. Introduction

Digital transformation has become a vital aspect in many fields of life, including electronic sports businesses, because it is the basis of supporting flexible and adaptive changes in operational processes and information systems [1]; leads to improved efficiency and productivity [2]; makes it easy to enter new markets [3]; recognizes the emergence of threats and opportunities caused by the dynamism and rapid change of the business environment [2]; leads to automated processes, reduces costs, and improves decision making [4]; causes innovation [4]; follows strategic change [5]; improves the customer experience [6]; and ultimately improves the value proposition for the customer and creates new revenue channels [7].

Therefore, many industries have taken steps in this direction in order to gain the benefits of these developments. Meanwhile, the sports industry has been one of the greatest users of these new technologies due to the ever-growing need for using digital solutions [8], so that digital transformation has become the main priority of 80% of sports companies around the world [9]. For example, GoPro initially offered a camera that was suitable for filming action sports; then, this company reached millions of people around the world by using its brand and taking advantage of social media and providing user-friendly software [10]. Such digital innovations are not limited to social media; Roger Goodell, the National Football League (NFL), also introduced the NFL's roadmap to enhance the in-stadium experience using digital technologies [11]. Stadium operators are beginning to digitize their stadiums by offering smartphone applications that allow spectators, the media, and other stakeholders such as sponsors to communicate with each other and create value. For example, the San Francisco 49ers app provides an opportunity for fans to order food and drinks, communicate with other fans, access real-time statistics, and see traffic patterns inside and outside the stadium [12]. This means that sports businesses are increasingly trying to create new ideas and have come to the conclusion that new technologies will help them develop products and services [8].

Nevertheless, the researchers show that the adoption of digital transformations has not always been accompanied by success. Many companies, especially sports businesses, have avoided entering this field [13], or their digital transformation process has slowed down [14] due to the chaotic conditions resulting from fundamental changes in the organizations, the nature of uncertainty, the lack of transparency in terms of the consequences, the high costs of investment [13,15], employees' resistance to change [14], a lack of digital skills among employees [14], doubts about the safety and effective management of data [16], cyber security, changes in the way customers interact, and compliance with regulations [14,16,17]. As an explanation, I should say that Kane et al. (2017, 2015) have a different opinion; they believe that strategy, not technology, drives digital transformation, and they have suggested that businesses should focus on developing a clear digital strategy that is aligned with their overall business strategy and must create the organizational capabilities needed to effectively implement this strategy [18,19]. In addition, Brown and Brown (2019) believe that the lack of knowledge about the various dimensions of this phenomenon and the factors related to it and also the lack of guidelines to direct the organizations are the main reasons for this failure. They suggest maturity models as a guideline [20] because digital maturity is a systematic method for the digital transformation of the businesses [18] and shows the achievements that the organizations have reached by making digital attempts so far, including the way the organization adapts to this environment and being ready to compete in this digital environment [6].

However, there is no clear and specific framework that describes the concepts and general guidelines of digital transformation maturity [21,22]. Between 70% and 95% of all digital transformation projects fail due to the large and varied challenges that organizations face during digital transformation processes [23]. Most models provide an incomplete picture of digital maturity, and most of the existing models of digital maturity are dedicated only to the field of production [24]. On the other hand, in developing countries, there are challenges such as digital skills, a lack of digital skills [25], legal complexity, insufficient funding [26], obstacles to successful implementation [27], and a lack of context-dependent policy etc., which prevent the successful implementation of digital transformation maturity in businesses [28]. Therefore, it is necessary to develop a framework that is capable of guiding businesses towards digital transformation in a desired way. Such a framework seems to be much more valuable in electronic sports businesses because in electronic sports businesses, digital transformation requires specific capabilities and enablers just like other businesses, but unlike them, digital transformation maturity models in electronic sports businesses have not been customized with the specific goals and needs of these businesses. On the other hand, they do not have a clear picture and a deep understanding of the maturity of digital transformation because basically most of the researchers have an indus-

trial background. In addition, in the field of sports management, theoretical contributions regarding the potentials and consequences of digitalization are still limited [29].

Therefore, it is necessary to design a framework for the maturity of digital transformation in electronic sports businesses in developing countries, and in this regard, this study has three objectives: (1) to identify the capabilities of digital transformation maturity in electronic sports businesses, (2) to identify the achievements of the maturity of digital transformation in electronic sports businesses, and (3) to identify the maturity levels of digital transformation in electronic sports businesses. Achieving these goals can help electronic sports businesses manage digital transformations and also provide systematic insight into the requirements of the success of digital transformation in electronic sports businesses. The results can also guide the mentioned businesses to adopt a coherent and integrated digital strategy. Additionally, this study contributes to the existing literature on the maturity of digital transformation in electronic sports businesses.

## 2. Literature Review

### 2.1. Digital Transformation

In the research literature, digitization, digitalization, and digital transformation are concepts that are sometimes used interchangeably even though these concepts do not have a single definition [30,31]. Digitalization is the process of converting analog information into digital encoded information [32], which occurred with the widespread emergence of computers [29]. Digitalization is a phenomenon that describes the use of digital technologies, for example, when companies use computers to facilitate work processes and do not adopt them only for traditional uses [33]. Therefore, digitization is related to the use of digital technologies in organizational settings and increasing the workforce [29]. On the other hand, digital transformation is a radical process of change that is carried out using the pre-introduced innovations [34,35]. Also, digital transformation is the process of imposing changes in the use of digital technologies or the development of new digital business models and a dramatic change in the functioning of an organization or a country centered on transformative technologies [19,36,37]. In addition, it means the integration of digital technologies in all different segments of a business, which changes the working procedures and provides value for the customers [38]. Therefore, in this study, digital transformation in electronic sports businesses refers to a cultural, organizational, and operational change that involves the intelligent integration of digital technologies, processes, and competencies at all levels, resulting in a convergence of these elements towards a strategic direction. The findings of a case study indicate that the number of published studies focusing on digital transformation in sports marketing has increased steadily since 2016 and reached its peak in 2020. Most of these studies have been published in sports communication journals, such as the *International Journal of Sports Communication* and *Communication and Sport*. The majority of studies have utilized a quantitative or qualitative approach, and more than half of them have been conducted in the United States. These studies have primarily focused on sports media, electronic sports, fantasy sports, and other digital innovations, such as smartphone applications [29]. There is no research that examined the digital transformation with an emphasis on electronic sports businesses. However, in the few studies conducted by Yang and his colleagues, by analyzing the digital transformation in Chinese traditional companies of sporting goods in tandem with the COVID-19 pandemic crisis and examining the role of digital transformation in coping with this problem, they found that the relevant businesses can increase their knowledge management capabilities and flexibility, allowing a higher level of performance [39].

### 2.2. Digital Maturity

Organizations are trying to successfully implement digital transformation in order to achieve sustainable success in their operations. This requires evaluating the organization's current digital maturity levels based on several dimensions and employing the best approach for this evaluation and creating a launching pad to implement digital trans-

formation and use the digital maturity models [40]. Digital maturity is closely related to digital transformation and is defined by Gökalp and Martinez as a state in which the digital technology of a unit has changed its activities, skills interaction, and business frameworks [41]. Hägg and Sandhu [42] call it a situation where a transformation has occurred in an organization that has succeeded in solving problems related to digital business prospects [42]. Schumacher and his colleagues define maturity as a complete provision or an ideal, which indicates the developing stages of a system [43]. Teichert uses the term digital transformation maturity to specify that the relationship between digital transformation and digital maturity includes technological and managerial components [24]. Cargiov and his colleagues have defined the maturity of digital transformation as the degree of an organization's readiness and capacity to change the strategy, business model, technology, products and services, internal and external processes, organizational structure, and company culture using digital technologies [6]. Based on these definitions, digital maturity can be summarized as a critical indicator that shows the adaptive performance of digital transformation [40].

In the field of sports, the digital maturity model can be used to evaluate the digital readiness of sports organizations such as clubs, leagues, and federations. This model can help them understand their strengths and weaknesses in terms of digital capabilities and create a road map for digital transformation [44]. However, there are few empirical studies that have focused on the maturity of digital transformation in sports and the sports industry and have identified the enablers and achievements of digital transformation in this context. In one of the few studies conducted in this field, Kitocompent and his colleagues showed in research entitled "Proposed framework of digital maturity dimension for sports media in Thailand: review and comparative analysis" that there are eight characteristics that are used in the most common maturity models: culture, technology, organization, customer, strategy, operations, innovation, and data analysis [45]. Wijnen also believes that strategy, culture, data, technology, processes, and people are important pillars around which the maturity of digital transformation in sports revolves [44]. In addition, Wylie and Palmer state that the maturity of digital transformation in sports leads to increased digital capabilities, creating a digital advantage, increasing agility, innovation, and greater participation, creating personalized products and services to improve sports experiences [46].

### 2.3. Electronic Businesses

E-business can be defined as the use of the Internet for networking and enabling business processes, e-commerce, organizational communication, and collaboration within a company and with its customers, suppliers, and other stakeholders. E-businesses use the Internet, intranets, extranets, and other networks to support their business processes [47]. Electronic sports businesses are online retailers that specialize in sports-related goods and services. These retailers offer a wide range of products (including sports clothing, sports equipment, tickets to sports events) and sports services (including sports content production) [48]. There are also businesses that provide sports-related products and services on the Internet or produce sports-related information and content [48]. Therefore, electronic sports businesses refer to online businesses that specialize in selling products and services related to digital sports and use digital technologies to reach a wider audience, improve customer experience, and simplify operations.

In general, though the existing literature has increased our understanding of the specific aspects of digital transformation in sports businesses, we lack a comprehensive picture of the nature and concepts of digital transformation and digital maturity in electronic sports businesses. Perhaps the reason is that the studies conducted on sports management are mainly focused on the relationship between digital transformation and electronic sports, and the comprehensive understanding of digital transformation in sports requires a broader approach [49]. Therefore, in the present study, an attempt has been made to provide a framework for the maturity of digital transformation with an emphasis on electronic sports businesses.

### 3. Methodology

#### 3.1. Research Methodology

In this study, the method of content analysis was used to identify, analyze, and report the patterns present in qualitative data. Content analysis encompasses a broad spectrum of methods and techniques, and suitable analytical methods can be employed based on the research goals and questions [50]. Nevertheless, the most commonly accepted method for conducting content analysis involves six stages, all of which were carried out in this study: (1) Familiarization with the data, (2) Developing initial codes, (3) Searching for themes, (4) Reviewing themes, (5) Naming themes, and (6) Producing the report [51].

#### 3.2. Sampling and Participants

The participants in this study were stakeholders of electronic sports businesses operating in Iran, which is considered a developing country. The reason why this research focuses on developing countries and Iran is that García-Fernández and colleagues believe that digital transformation in developing countries is not comparable to that of developed countries in many aspects, including technology infrastructure, digital culture, and so on [52]. Therefore, a uniform digitalization pattern cannot be applied to them [53].

According to stakeholder theory, anyone who is in any way affected by an organization or its performance is considered a stakeholder [54]. However, in this study, stakeholders included employees, managers, producers, and suppliers of electronic sports businesses. In this study, criteria such as expertise (having relevant knowledge and expertise in the field of study), work experience (having at least 5 years of work experience in the field of study), diversity (having diverse and broad backgrounds and experiences), availability, and willingness to collaborate were considered for selecting experts. The sampling method used was purposive sampling, and its strategy was snowball sampling. The reason why participants from different spectrums (employees, managers, producers, and suppliers) were selected for the interviews was to explore a range of perspectives on the research topic. After conducting 12 interviews, we reached data saturation, and to ensure data saturation, we conducted three more interviews.

Of this number, 7.66% were men and 3.33% were women. Their average age was 41.3 years, and their work experience was 7.11 years. They had an equal distribution of bachelor's, master's, and doctoral degrees. The businesses in which these individuals were active are as follows: a video-based fitness and bodybuilding movement educational database, a home workout application, a football news, statistics, and data reference website, a specialized online sales platform for sports equipment, the science of a bodybuilding educational system, social network for sports with the ability to compare sports clubs, a comprehensive sports directory for Iran, an online store for sports clothing and equipment, a sports social network and information platform, an online platform for introducing and booking sports facilities, a platform for providing diet and exercise plans, a sports industry platform, and a specialized store for yoga and meditation equipment.

#### 3.3. Data Collection

The data were collected between August 2021 and January 2022. Participants were asked to participate in semi-structured interviews, the purpose of which was to identify the drivers of digital transformation, its achievements, and stages. Skype was used to collect the data because the time and location flexibility provided by the Internet is beneficial for qualitative research, allowing researchers to access diverse and geographically dispersed populations that may not be easily accessible [55].

#### 3.4. Validity and Reliability

In this study, the following measures were taken to evaluate the validity and reliability of the results (Table 1).



**Table 1.** Validity and reliability of the results.

Result	Method	Strategy	Validity/Reliability
Confirm	Research process confirmation by eight experts	Credibility (reliability)	Validity
Confirm	Using two coders for coding multiple interview samples	Credibility (reliability)	Validity
Confirm	Opinions of three experts who did not participate in the study	Transferability	Validity
Confirm	Recording and documenting all interviews	Conformability (verifiability)	Validity
Confirm	Sharing information with five participants in the study	Process audit study	Reliability
Reliability between two coders is 88%	Analyzing three interviews by the researcher and a co-worker and identifying similar and dissimilar codes	Inter-coder agreement	Reliability

### 3.5. Data Analysis

Data analysis began from the first day of data collection and was carried out using transcription, note-taking, coding, theoretical comparison, charting, and integration. All interviews were conducted in the local language (Persian) and transcribed as soon as they were completed. The primary author transcribed all recorded data in Microsoft Word 2010. The transcripts were then checked and sent via email for review by the participants. This was done to ensure that the transcripts accurately reflected the participants' opinions. Each transcript was kept in its original form and was never translated into English because translating a significant portion of the data into another language carries the risk of losing its true meaning [56]. However, themes or codes generated from the analysis were translated into English because they were shorter (in phrases or a few words) and were easier to translate with less chance of losing their meaning.

To facilitate the data analysis process, note-taking was carried out after each interview, during transcription, and throughout coding. These operations involved reflections on the environment, participants' expressions of emotions and responses, interview quality, lessons learned, and strategies for future interviews. Note-taking during transcription focused on key words, patterned questions, and gaps that needed to be filled. Note-taking during coding focused on the relationship between key ideas and themes that emerged during the analysis. Finally, the information was prepared for analysis using the reflexive thematic analysis method proposed by Braun and Clarke in 2006, which has since become one of the most common methods of conducting content analysis [57].

## 4. Findings

Our findings generally indicate that moving towards digital transformation and achieving digital maturity in electronic sports businesses depend on six key capabilities. By equipping relevant businesses with these capabilities, it will be possible to move towards digital transformation and achieve the four outcomes of digital transformation. In addition, the maturity of digital transformation in electronic sports businesses is divided into four levels. Now, we will discuss the enablers, achievements, and stages of digital transformation in electronic sports businesses in more detail.

### 4.1. Enablers of Digital Maturity in Electronic Sports Businesses

Every electronic sports business needs key enablers and capabilities to move towards digital transformation. Digital enablers refer to "governance and leadership", "digital strategy", "culture and skills", "innovation", "technology", and "data", and achiev-

ing digital transformation and digital maturity will be impossible without each of these enablers (Table 2).

**Table 2.** Enablers of Digital Maturity.

Themes	Subthemes	Concepts
Enablers of Digital Maturity	Digital Governance and Leadership	Internal promotion of digital governance literacy Efforts to increase digital governance literacy Definition, approval, and management of digital transformation projects Design of a digital governance system Moving towards a digital-focused redesign of structures Support for managers in digital transformation The impact of managers on digital transformation Attracting digital transformation managers from outside Development of digital transformation managers at various levels
	Digital Strategy	A strategic approach to digital transformation Development of strategic pillars (vision and goals of the organization in the field of digitalization) Expansion and coverage of strategic pillars Alignment between digital transformation strategies and functional and competitive strategies
	Digital Culture and Skills	Evaluation of digital culture Evaluation of digital skills Cultivation of digital culture Development of digital skills and training
	Digital Innovation	A strategic approach to digital innovation Building a digital innovation governance system Systematic research and development Enhancement of business innovation literacy Presence in innovation trends
	Technology	Moving towards information technology governance Thinking about information technology auditing Thinking about information technology architecture Entering the field of information technology management Using transformative technologies in products and services Having short-term and long-term development plans for the technology field
	Data	Evaluation of data maturity Data literacy Use of data analysis platforms

#### 4.1.1. Digital Governance and Leadership

Digital governance is a system for guiding digital transformation in electronic sports businesses that establishes policies, structures, processes, and mechanisms to ensure the acquisition of digital value and benefit. According to interviewee number 8, who is an employee of an electronic sports business with 15 years of work experience, “digital governance pursues two main objectives: first, coordination for prioritizing, synchronizing, and aligning digital initiatives across the organization; second, sharing efficient resources to achieve digital transformation goals”. Additionally, “digital leaders” are leaders who define and frame digital age issues well, offer technology-based solutions for them, and coordinate the elements of their organization to move towards digital transformation. In this regard, interviewee number 4 stated, “Digital leaders know that the digital transformation story is not just a technology story, but they consider strategy, culture, innovation, and employee skills as circles alongside technology that are essential to guide the organization on the path to digital transformation. Perhaps the most important role of digital leaders is to attract enthusiastic employee participation in the path of digital transformation”.

#### 4.1.2. Digital Strategy

Digital strategy is important in electronic sports businesses because today, the role of technology in business has gone beyond a specific area such as information technology and encompasses the entire business. To take advantage of this, a business needs a more comprehensive strategy than an information technology strategy. In recent years, to address this problem, the convergence of information technology strategy and business strategy has been discussed in the form of “digital strategy”. In this regard, interviewees 7 and 11 stated a similar position, i.e., “Digital strategy seeks to create capabilities within a business using transformative technologies so that an organization can respond to changing market conditions. Therefore, electronic sports businesses need to have a strategic outlook on digital transformation and at the same time formulate their vision and goals in the field of digitalization”.

#### 4.1.3. Digital Culture and Skills

Regarding the importance of “digital culture and skills”, it can be said that to successfully implement digital transformation in electronic sports businesses, digital culture must be nurtured. When we talk about digital culture, it does not mean an entity independent of the organizational culture. Digital culture is a set of systematic values and methods that each individual strengthens individually and empowers businesses to progress in a world that is advancing towards a digital economy. Therefore, digital culture is the same culture that organizations of this era must cultivate to embark on a digital journey. According to interviewee number 9, “Electronic sports businesses, according to my experience over the past 17 years, must have a technology-accepting culture for sustainable digital transformation”. On the other hand, interviewee number 3 believes that “although culture may be an effective factor, we should not forget that without digital skills and talents, we cannot hope for digital transformation in business. Businesses should not necessarily focus on professional experts in technology such as data analysis and artificial intelligence; in fact, they should aim to attract, develop, and retain individuals with a set of cognitive, social, emotional, and technical skills”.

#### 4.1.4. Digital Innovation

“Digital innovation” refers to innovation in products, processes, or business models using digital technologies. “Digital innovation” refers to using digital technologies to solve problems and challenges in electronic sports businesses. In this regard, interviewee number 3 stated, “Businesses have no choice but to innovate to take advantage of opportunities and overcome the implicit threats of transformative technologies”. At the same time, interviewee number 5 stated, “Research, development, and innovation are an ongoing and dynamic process, not a one-time event, which requires both short-term and long-term results. Therefore, innovation must become a key capability in the organization”.

#### 4.1.5. Technology

“Technologies” are divided into two common and transformative types. Common technologies play a maintenance role in electronic sports businesses and have become essential for survival. In contrast, transformative technologies aim to create fundamental changes in electronic sports businesses. Common technologies are used only to perform routine and daily operations in organizations, and they cannot be expected to create transformation in business or industry. The Internet, email, AR/VR ID, GPS, and smartphones are examples of such technologies. Although daily business operations become difficult without common technologies, their use does not create a competitive advantage for electronic sports businesses and does not generate digital dividends. However, transformative technologies provide the possibility of fundamental changes for businesses. In this regard, interviewee number 12 stated: “Digital leaders equip themselves with innovative digital technologies more than their competitors and put themselves on the path of transformation through them. These technologies are a combination of information, communication,



operations, and media technologies that facilitate the organization role through innovation in the business model, improving core processes of the organization and enhancing customer experience, leading to digital transformation in business. Data analytics, artificial intelligence, blockchain, the Internet of Things, cloud computing, 3D printing, virtual and augmented reality, robotics, physical, and social media are among the most important digital technologies that play a key role in the digital transformation of businesses, and electronic sports businesses are certainly not an exception”.

#### 4.1.6. Data

Another empowering element of digital transformation maturity is “data”, which help electronic sports businesses move away from guesswork and towards inspiring predictions and continuous testing of hypotheses. Today, data provide the necessary insight for decision-making, and the era of decision making based solely on intuition and emotions is over. In this regard, interviewee number 4 stated: “Today’s businesses have become data-driven businesses. They need data analysis and information to gain a better understanding of customers, competitors, target markets, and even products and services to be offered. These analyses help managers define new business lines”. Also, interviewee number 15 stated: “Digital electronic sports businesses managers must make all their decisions data-driven, from formulating business strategies to determining employee salaries and rewards, to succeed in the digital age”.

#### 4.2. Achievements of Digital Transformation Maturity

The findings indicate that by equipping electronic sports businesses with the aforementioned capabilities and tools, they can move towards digital transformation and achieve four digital transformation achievements: “business model and ecosystem”, “digital customer experience”, “digital employee experience”, and “digital processes” (Table 3).

**Table 3.** Achievements of Digital Transformation.

Themes	Subthemes	Concepts
Achievements of Digital Transformation	Business model and ecosystem	Reviewing the ways and methods of creating value in the digital age Adaptation of actions to the capabilities and opportunities of the digital age Sustainability of the digital business model A digital ecosystem approach Developing a digital ecosystem
	Digital customer experience	Evaluation of digital customer experience Design and analysis of customer journey maps Program and process for enhancing the digital customer experience before, during, and after purchase Upgrading the management and knowledge of digital customer experience Co-creation of digital product and service development with customers
	Digital employee experience	A strategic approach to digital employee experience management Evaluation of the work environment and digital employee experience Development of a digital work system Design and analysis of employee journey maps Upgrading digital employee experience before, during, and after employment
	Digital processes	Documenting digital processes Modeling and architecture of digital processes Ensuring the maturity of digital processes Using digital technologies and innovation in business processes Redesigning digital business processes

##### 4.2.1. Business Model and Ecosystem

“Business models” are business models that create value for electronic sports businesses with a focus on digital technologies. The transformation that digital technologies

create in business models can be partial or fundamental. Sometimes, a review of the business model is carried out by creating innovation, limitations, and non-structural changes in the current model. These changes do not bring a completely new business model for electronic sports businesses, but rather focus on innovation and improvement in the current model's performance. On the other hand, the transformation of the business model through digital technologies can go beyond limited innovations in the current model and lead to the creation of new products and services or fundamental changes in sales approaches or revenue generation methods. This fundamental re-creation sometimes not only affects the business itself but also affects related industries and creates new structures in the industry or new behaviors in customers.

Furthermore, the concept of the "business ecosystem" is a new concept that emphasizes the cooperation and synergy among various players in the business space, where the business space is considered an ecosystem, and a network of actors plays a role in creating value for the customer. Interviewee number 14 stated in this regard, "The participation of each of the main and ancillary players with each other in the ecosystem of the product or service offered in related businesses creates a dependency that ultimately brings more value to the customer".

#### 4.2.2. Customer Digital Experience

Digital technologies are impacting the "customer experience" more than ever before. Although "customer experience" is not a new concept in the field of electronic sports businesses, due to the amazing impact that digital technologies have had on customer experience in various industries, it has received more attention than ever before, and a new concept called "customer digital experience" has been introduced. Interviewee number 13 believes: "Digital technologies are able to significantly improve the customer experience by creating an attractive, interactive and completely different environment and meeting their expectations in the best possible way". Interviewee number 10 also stated: "To create an attractive digital experience, coherence must be created between the physical and technological experience of customers to create the highest value for them".

#### 4.2.3. Employee Digital Experience

Entering the era of "employee experience" is a major revolution in the field of electronic sports businesses. In this era, organizations no longer treat individuals as the "assets and resources of the organization", but rather as "humans". The result of this new approach is a greater effort to understand employees and provide solutions tailored to their needs. In fact, when employees have a positive experience in the business, they have a high level of attachment, are well integrated with the organization, participate, are sensitive to what they do, and have higher productivity. In this regard, participant number 6 stated: "The employee experience includes all factors that affect the perception and feelings of employees about their work environment and job, and electronic sports businesses must always have a strategic approach to managing the digital experience of employees and design and analyze employee travel plans".

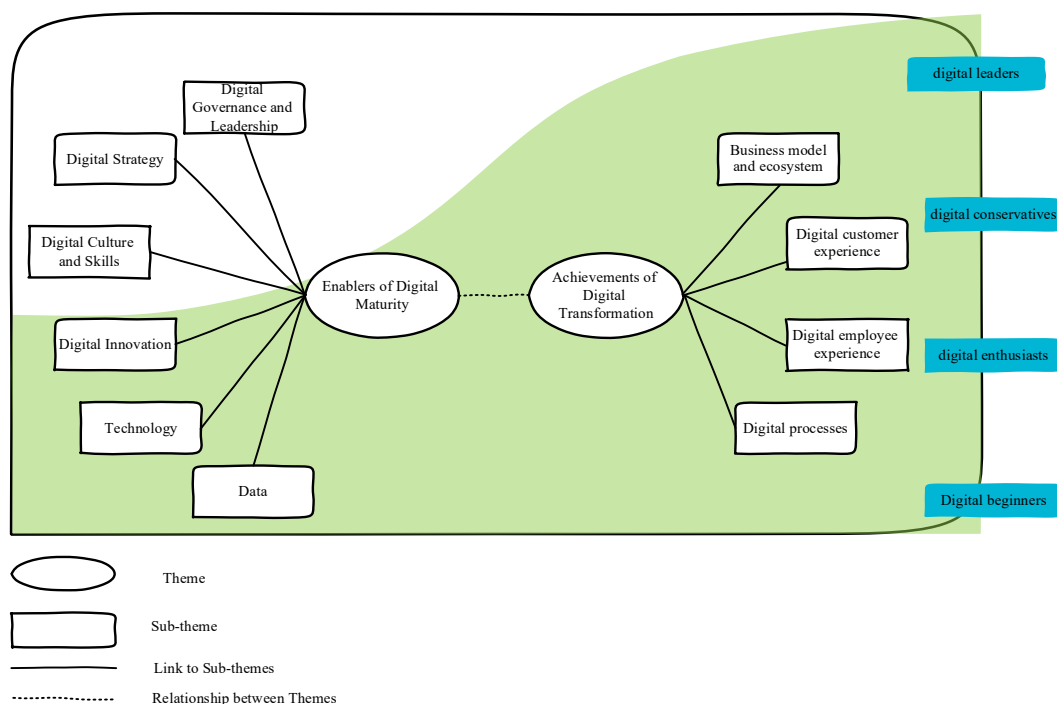
#### 4.2.4. Digital Processes

Advances in information technology and the emergence of digital technologies have provided better conditions for improving "organizational processes". Digital technologies can help improve the work processes in electronic sports businesses. Based on this approach, processes are eliminated, simplified, and automated. Businesses have been trying for years to automate manual tasks, but today, with the use of technologies, these tasks can be easily done, and many good and low-cost solutions have been provided through technologies.

#### 4.3. Levels of Digital Maturity

Findings show that after evaluation and auditing, electronic sports businesses are placed in one of the levels of digital maturity according to their score. "Digital beginners"

are at the lowest level, followed by “digital enthusiasts”, “digital conservatives”, and at the highest level of maturity, “digital leaders”. Participant number 3 states, “Beginners are at the starting point of their digital journey. Many of them are trying to ensure success before taking action, which is why they have adopted the ‘let’s see what happens’ strategy”. Interviewee number 5 also believes that “some beginners think that technological opportunities are suitable for other industries, not theirs. Others lack the necessary leadership to create change. As a result, beginners only have basic technological capabilities and are placed lower than their competitors in many financial performance criteria”. On the other hand, enthusiasts do not wait (interviewee number 12). They buy every new digital tool. They follow technological trends and fashions and are proud of this feature, but do not change the nature of their affairs (interviewee number 9). However, due to the lack of strong digital governance and leadership, many of their expenses are wasted. Or they find that they need to review everything they have done so far in order to integrate and upgrade their capabilities (interviewee number 3). Interviewee number 10 believes that “none of these enthusiasts have a mechanism for coordinating activities or creating synergy between their investments. Creating a wide range of non-adaptive processes and systems may seem like progress, but in reality, it will limit the exploitation of larger opportunities. This inflexibility prevents the creation of a coordinated approach to customer interaction and a unified approach to operations”. Furthermore, conservatives are at the opposite end of enthusiasts in terms of capability. Interviewee number 9 believes that “although conservatives have useful digital leadership capabilities, excessive caution prevents these businesses from creating powerful technological capabilities. These businesses focus on the fact that each technological investment should be carefully selected and fully coordinated with each other. Leaders in these businesses avoid making mistakes because they know it will waste scarce resources like time, effort, and money”. Finally, unlike most businesses, digital leaders excel in both empowering and achieving superior results. This is while some businesses may only appear strong in technological capabilities and be weak in leadership capabilities, and vice versa (Figure 1).



**Figure 1.** Conceptual Map of Digital Maturity in Developing Countries' Electronic Sports Businesses.

## 5. Discussion

In simple terms, in any change or transformation, we need a benchmark model to compare and measure our progress. Digital transformation is no exception, and using a benchmark model is crucial for achieving the best results. Moreover, a crucial element that different businesses should consider before embarking on the digital transformation journey is determining an appropriate model for assessing digital maturity in their industry. This is because in different time intervals, the basis for measuring progress and desired indicators must be determined to obtain a proper comparison and analysis of progress, strengths, and weaknesses. In this study, based on interviews with stakeholders in developing countries' electronic sports businesses, a framework has been developed for digital maturity in these businesses.

This framework emphasizes digital enablers and digital achievements in the path of digital transformation of electronic sports businesses in developing countries. Digital governance and leadership are among the digital enablers, as they ensure that electronic sports businesses have a clear strategy, structure, and accountability for their digital initiatives. Without effective governance and leadership, digital transformation efforts may lack direction, compatibility, and harmony with business objectives, resulting in wasted resources and missed opportunities. Digital governance includes creating policies, procedures, and standards for managing digital assets, data, and processes. It also involves defining roles, responsibilities, and decision-making processes for digital initiatives. Effective digital governance ensures that businesses can manage risks, comply with regulations, and optimize their digital investment value. On the other hand, digital leadership includes creating a vision, culture, and mindset that enhance innovation, collaboration, and agility in the digital age. Digital leaders must be able to inspire and motivate their teams to embrace change, experiment with new ideas, and continuously learn and improve. They also need to be able to communicate the value of digital transformation to stakeholders and align it with business strategy.

Strategy is another enabler of digital transformation maturity in electronic sports businesses, which has been highlighted in past research, unlike governance and leadership [44,45]. This is because strategy provides a roadmap for how digital technologies and processes can be used to achieve business objectives. A well-defined digital strategy ensures alignment between digital initiatives and the overall business strategy, and resources are effectively allocated to achieve maximum impact. A digital strategy also helps electronic sports businesses identify opportunities for innovation and growth and stay ahead of competitors in a digital landscape, while enabling businesses to prioritize investment in technologies and digital processes based on their potential to deliver value and improve customer experiences. Furthermore, a digital strategy provides a framework for measuring the success of digital transformation initiatives and continuous improvement and optimization over time, helping electronic sports businesses stay agile and respond to changing market conditions and customer needs.

Another enabler identified for digital maturity in electronic sports businesses is culture and skills, which have been previously mentioned in studies [44,45]. The reason culture and skills were recognized as an enabler for digital transformation maturity in electronic sports businesses is that both are vital factors that determine the success or failure of digital initiatives. A culture that is open to change, innovation, and experimentation is essential for accepting new technologies and processes and fostering a mindset of continuous improvement. In addition, having the appropriate skills and expertise for effective implementation of digital initiatives is crucial. This includes technical skills such as data analysis, artificial intelligence, and cybersecurity, as well as soft skills such as communication, collaboration, and adaptability. Without a culture that supports digital transformation and the necessary skills to implement it effectively, businesses may struggle to fully leverage the potential of digital technologies and processes. They may face resistance to change, encounter obstacles in implementation, or fail to achieve desired results. Therefore, businesses must invest in developing a culture that encompasses digital transformation and creating the necessary

skills and capabilities for effective implementation. This requires a commitment to continuous learning and development, as well as a willingness to experiment and take risks in the pursuit of innovation and growth.

The fourth enabler identified through the combination of themes in the study [45] is innovation, which plays a role in the maturity of digital transformation in electronic sports businesses as it fosters growth, competition, and customer satisfaction. Digital technologies are constantly evolving, and businesses that fail to innovate are at risk of falling behind their competitors and losing market share. Innovation can also help businesses identify new opportunities, create new products and services, improve processes, and enhance customer experiences. By embracing innovation, businesses can stay ahead of the curve and remain relevant in a rapidly changing marketplace. Furthermore, innovation can reinforce a culture of continuous experimentation and improvement, which is essential for successful digital transformation. It encourages employees to think creatively and remain open to new ideas, technologies, and approaches. Finally, innovation helps electronic sports businesses overcome challenges and obstacles that may arise during the digital transformation process, enabling them to find solutions for complex problems, adapt to changing conditions, and take advantage of new opportunities.

In this study, technology was also identified as an enabler of digital maturity in electronic sports businesses, previously mentioned in studies. The reason technology explains digital transformation maturity is that it is the foundation upon which digital transformation is built. Digital technologies enable businesses to automate processes, collect and analyze data, engage with customers, and create new products and services. Technology also guides innovation by providing new tools and platforms for experimentation and development. For example, cloud computing, artificial intelligence, and blockchain are all technologies that drive innovation in various industries. Additionally, technology is essential for businesses to remain competitive in a rapidly evolving market. Finally, by using technology, electronic sports businesses can improve efficiency, reduce costs, and enhance customer experiences.

The latest enabler identified through the combination of themes in this study is the sub-theme of data, which has also been emphasized in the studies by Kittkumpanat et al. (2023) and Wijnen (2020) [44,45]. Data provide valuable insights that can be used to improve decision making, optimize processes, and enhance customer experiences. As the volume of data generated by businesses increases, the use of data analysis tools and techniques to extract meaningful insights from these data has become essential. Through data analysis, electronic sports businesses can identify patterns, trends, and correlations that can help them understand customer behavior, market trends, and business performance. This information can then be used for informed decision making about product development, marketing strategies, and resource allocation. Data are also important for improving operational efficiency. By collecting and analyzing data about processes and workflows, electronic sports businesses can identify inefficiencies and areas for improvement, leading to cost savings, improved productivity, and better resource utilization. Finally, data are vital for enhancing customer experiences. By collecting and analyzing customer data, businesses can gain insights into their preferences, needs, and behaviors. This information can then be used to personalize products and services, improve customer service, and create more engaging marketing campaigns.

By equipping organizations with these capabilities, it is possible to move towards digital maturity. “Business model and ecosystem”, “digital customer experience”, “digital employee experience”, and “digital processes” are the four achievements of digital transformation that, when combined, will create a digital-savvy organization. The reason why the business model ecosystem contributes to the digital maturity of electronic sports businesses is that this model provides a framework for how businesses operate and interact with other businesses and stakeholders in the digital economy. On the other hand, it defines the value proposition, revenue streams, and cost structure of the business, showing how the business creates value for customers, shareholders, and other stakeholders. A

well-designed business model can help businesses identify new opportunities, optimize operations, and achieve sustainable growth. Additionally, the ecosystem can provide access to new technologies and resources that can accelerate digital transformation. For example, partnering with technology providers or startups can help electronic sports businesses gain access to technologies and expertise that can assist in innovation and staying ahead of competitors.

One of the sub-themes of achieving digital maturity is the digital customer experience, which has been mentioned in the study by Kittkumpanat et al. (2023) [45] as one of the indicators of digital transformation maturity. The reason why the digital customer experience explains digital maturity is that customer experience directly affects satisfaction, loyalty, and retention. In today's digital age, customers expect holistic and personalized experiences at all touchpoints, including websites, mobile applications, social media, and other digital channels. As a result, electronic sports businesses that prioritize the customer experience can gain a competitive advantage by providing exceptional experiences that meet or exceed customer expectations, leading to increased customer loyalty, positive word-of-mouth referrals, and higher revenue growth. In addition, the digital customer experience can also provide valuable insights into customer behavior and preferences that businesses can use to inform their digital transformation strategies. By collecting and analyzing customer data, businesses can identify pain points, opportunities for improvement, and new areas for innovation.

Furthermore, it has been found that in addition to the digital customer experience, electronic sports businesses must also focus on the digital employee experience to achieve digital maturity. A positive digital experience for employees can lead to increased productivity and efficiency. When employees have access to the right tools and technology, they can work more efficiently and complete tasks more quickly. When employees gain the necessary experience, they can provide better services and support to customers, and they are more likely to offer innovative ideas that can contribute to business growth.

Finally, it has been determined that digital processes are the foundation of digital maturity in electronic sports businesses, as previously mentioned in the study by Wijnen (2020) [44]. They enable electronic sports businesses to streamline their operations, increase efficiency, and improve customer experiences. Digital processes also allow businesses to collect and analyze data more effectively, which can help them make informed decisions and identify areas for improvement. By implementing digital processes, electronic sports businesses can automate repetitive tasks, reduce errors, and free up employees to focus on higher-value activities, which can lead to increased productivity, faster response times, and improved customer satisfaction. Digital processes also enable electronic sports businesses to leverage emerging technologies such as artificial intelligence, machine learning, and the Internet of Things. These technologies can help businesses gain insights into customer behavior, optimize operations, and create new products and services.

## 6. Conclusions

This section includes the authors' concluding comments, theoretical contributions, implications for practice, limitations of the study, and recommendations for future research.

### 6.1. Theoretical Contribution and Implications

This study provides a framework for digital transformation in developing countries' electronic sports businesses. As far as we know, this is the first qualitative study examining digital transformation in electronic sports businesses in developing countries. The results showed that digital transformation and digital maturity in electronic sports businesses in developing countries, with a focus on Iran, are a function of 10 sub-themes, and balanced development in these areas can ensure electronic sports businesses' digital transformation to a great extent. "Governance and leadership", "strategy", "culture and skills", "innovation", "technology", and "data" were identified as enabling factors and needs for digital maturity, and "business model and ecosystem", "customer digital experience", "employee digital



experience”, and “digital processes” were identified as achievements and needs for digital maturity. Although there are some differences between enabling factors and achievements, it is essential to emphasize that moving towards digital transformation and achieving digital maturity in electronic sports businesses is impossible without synergy between them.

From a theoretical perspective, this study highlights the importance of maturity models in the digital transformation process, and evaluations based on this framework can act as a catalyst and identify the turning points in the digital transformation journey of electronic sports businesses in developing countries. Overall, this framework increases our understanding of digital transformation and digital maturity in electronic sports businesses and provides valuable insights for researchers and experts in this field.

#### *6.2. Practical Implications*

From a practical perspective, this study provides useful concepts for electronic sports businesses in developing countries that are seeking successful digital transformation. For this purpose, a framework for digital transformation maturity with 10 sub-themes has been proposed. These sub-themes refer to various enabling factors and vital success factors in the digital transformation process, and the unique structure of the proposed framework enables the clear and explicit evaluation of digital maturity levels for electronic sports businesses. Additionally, electronic sports businesses can prioritize their efforts and resources towards successful digital transformation by focusing on targeted enabling factors and capabilities and ensure a more effective and efficient transition to digitalization. Finally, this framework helps electronic sports businesses in developing countries evaluate their progress in digital transformation over time and measure the effectiveness of their digital transformation initiatives.

#### *6.3. Limitations*

Despite the benefits of the digital transformation maturity framework for electronic sports businesses in developing countries, there are limitations that must be considered. The first limitation is that this framework is relatively new, and there is limited empirical research on its effectiveness in the electronic sports businesses. The second limitation is that this framework may not be applicable to all electronic sports businesses, as different businesses may have different goals, resources, and levels of digital maturity. Finally, this framework may not take into account the rapidly evolving nature of electronic sports businesses and the continuous emergence of new technologies and business models.

#### *6.4. Recommendations for Future Research*

To address these limitations, there are various areas for future research that can be explored. Firstly, empirical research can be conducted to evaluate the effectiveness of the digital transformation maturity framework in the electronic sports businesses. Secondly, future research can examine the applicability of the maturity framework for different types of electronic sports businesses. For example, this framework may be necessary for small and medium-sized businesses or start-ups that have limited resources. This research can also investigate the factors that impact the level of digital maturity in electronic sports businesses and how to address them. Lastly, future research can investigate the impact of emerging technologies and business models on the digital transformation maturity framework for electronic sports businesses. For instance, the emergence of blockchain technology and non-fungible tokens (NFTs) in the electronic sports businesses may require a different approach to digital transformation. This research can also examine the challenges that electronic sports businesses may face in adopting these new technologies and how to overcome them.

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