

The perceived effect of digital transformation and resultant empowerment on job performance of employees in the fitness family business

Perceived
effect of digital
transformation

Kadir Yildiz

*Department of Sport Management, Faculty of Sport Sciences,
Manisa Celal Bayar University, Manisa, Türkiye*

Halil Erdem Akoğlu

*Department of Sport Management, Niğde Ömer Halisdemir University,
Niğde, Türkiye*

Esra Emir

Faculty of Sport Sciences, Bartın University, Bartın, Türkiye

Salvador Angosto

*Department of Physical Education and Sport, Universidad de Sevilla,
Seville, Spain and*

*Department of Physical Activity and Sport, Universidad de Murcia,
Murcia, Spain, and*

Jerónimo García-Fernández

*Department of Physical Education and Sport, Universidad de Sevilla,
Seville, Spain*

Received 11 February 2024
Revised 17 March 2024
Accepted 17 March 2024

Abstract

Purpose – The impact of technological transformations in all sectors is undeniably significant, especially in fitness family business. The aim is to examine the digital transformation perceptions of fitness centre employees and the effects of perceived empowerment on their job performance in family business in Turkey. **Design/methodology/approach** – The sample was 334 fitness centre employees. Four variables were evaluated (digital transformation, meaning competence, self-determination and job performance), and PLS-SEM was used.

© Kadir Yildiz, Halil Erdem Akoğlu, Esra Emir, Salvador Angosto and Jerónimo García-Fernández. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>

We would like to thank all the participants who participated in the study. The publication is part of grant JDC2022-048886-I, funded by MCIN/AEI/10.13039/501100011033 and by the European Union “NextGenerationEU”/PRTR.

Funding details: To include when the article will be accepted.

Disclosure statement: The authors report there are no competing interests to declare.

Institutional review board statement: The study was conducted according to the guidelines of the Declaration of Helsinki.

Informed consent statement: Informed consent was obtained from all subjects involved in the study.



Journal of Family Business
Management
Emerald Publishing Limited
2043-6238

DOI 10.1108/JFBM-02-2024-0038

Findings – The digital transformation process in the fitness sector can be considered as an important factor in terms of creating new business ventures. Our results showed that digital transformation perceived by family business employees had a significantly influence on the meaning competence of the employees. Also, the meaning competence of employees was a mediator between the digital transformation and job performance.

Practical implications – Managers of family businesses must take into account that an appropriate digital transformation of their products and/or services has an impact on the meaning competence of their employees. Thus, through increased competence in employee performance, the digitization of family business fitness will lead to higher employee performance and productivity.

Originality/value – This study innovates by linking digital transformation as a factor influencing the coach's own motivation and self-perceived competence in the use of technology to their job performance.

Keywords Digital transformation, Sport services, Perceived empowerment, Digital impact, Job performance, Fitness industry

Paper type Research paper

1. Introduction

Family businesses are the most common type of business in the world (Ernst and Young, 2018; Ratten *et al.*, 2023), which contribute greatly to the economic development of countries (Carbone *et al.*, 2022). Family businesses generate jobs for a large part of the world's population, helping in the economic prosperity of the country (Gagné *et al.*, 2021). The role of the family business in the economy is shaped by cultural traditions and new social attitudes with new technologies changing the way a family business is conceived (Ratten, 2023).

According to Ramadanani *et al.* (2017), the family can be understood as a social form group consisting of more than one person by biological association. Although the social changes that have taken place in recent years have meant that the family is also associated with a group of people with whom a close social bond of affection is shared and where a feeling of solidarity arises among family members (Ramadanani and Hoy, 2015). Baltazar *et al.* (2023) consider that family business is the business at least 50% owned by a single family. While Jain *et al.* (2023) think that family business are commercial organizations in which several generations of the same family may influence on the decision-making process to achieve objectives defined by the own family leadership. Therefore, understanding a family business in depth can be a complex process that needs to be investigated (Ratten, 2021), especially in terms of organizational performance.

Today, technological developments have important effects in both individual and social sense include family business. Digitalization, which is one of the important outputs of technological developments, significantly changes both the private (Reis *et al.*, 2018) and professional (Loebbecke and Picot, 2015) lives of individuals. This effect also has an impact on the way individuals work and consume. Although digitalization is considered as the process of creating a common value for institutions and companies (Cecere and Bernardi, 2023; Stegmann *et al.*, 2023; Swaminathan *et al.*, 2020), it also emerges as a structure that diversifies humans' behaviours and their ways of interacting with each other (Payne *et al.*, 2008).

In line with technological developments, the sports industry, which is one of the most important industries of the world, has also taken its share from the digital transformation (DT) trend (Stegmann *et al.*, 2023; Zhang and Sun, 2024). This transformation process is considered as a significant element in explaining how sports services can be better managed. While Talimciler (2002) emphasized that sports are a social institution, he also stated that it is essential to reevaluate this social phenomenon, which is growing every day in economic and cultural organizations, by considering the changing economic and social conditions of the world.

Therefore, it does not seem to be possible to isolate the changes in sports from economic and cultural changes that occur in the world (Cecere and Bernardi, 2023). One of these important changes is the acceleration of the DT process in sports environments. In addition to having a far-reaching effect on the economic dimension of sports, this process of change will also have powerful effects on the service sector (Ratten, 2024). The sooner sports institutions

adapt to the DT processes, the more effective they will be in institutional sustainability (Stalmachova *et al.*, 2022).

Hence, the implementation of digital technologies has affected the way of doing business (Soluk *et al.*, 2021). Despite the visible impact of DT and new business models, the scientific literature has paid little attention to these developments (Verhoef *et al.*, 2021). Xie *et al.* (2023) revealed that most family businesses are currently not very committed to DT and do not prepare for it. This study will analyse (1) the relationship between DT perceived by employees of family business fitness; (2) the impact generated by the implementation of DT in companies on psychological empowerment factors and (3) the impact of psychological empowerment that DT has on the performance of non-family employees. In this context, the aim of the present study is to research the digital transformation perceptions of professionals working in fitness family business, which occur through technological development, and to research the effect of psychological empowerment within the structure of the institution on job performance.

2. Theoretical background

Ratten (2020, p. 89) conveyed the prevalence of technological transformation in sports organizations in the 21st century and stated that with the increase in the acceptance and adaptation of technology, the DT process accelerated in the sports industry. She also pointed to an increased use of digital technologies in the society with Industry 4.0.

The digital transformation can be defined as a change in the way a company uses digital technologies to develop a new digital business model that helps to create and appropriate greater value for the company (Verhoef *et al.*, 2021). In addition, DT can also be seen as a process of both digitization and digitalization necessary to pursue innovation for the firm to remain competitive (Leonardi and Treem, 2020). In this sense, Gradillas and Tomas (2023, p. 4) define digitization as “the creation of digital artifacts through technical processes of conversion, representation, and enhancement”, while digitalization is “the transformation of the socioeconomic environment through processes of digital artifact adoption, application and utilization”.

Currently, family businesses struggle to deal with the continuous technological changes having to adopt a digital mindset to survive in the market (Rashid and Ratten, 2020). Digitisation manifests itself incrementally and radically in family businesses, especially during a company’s scaling strategy (Appleton and Holt, 2024). Recent studies have evaluated digitization processes in family firms, which can master such a process despite limited resources coming from family capital (de Groote *et al.*, 2023). Xie *et al.* (2023) have evidenced the existence of a positive relationship between the firm’s readiness for digital innovation and the digital business model, as well as the medication of family learning. However, the relationship between family influence in such firms and dynamic capabilities is weakened due to the existing environmental dynamism of digitalization (Soluk *et al.*, 2021).

With technological developments, the fitness sector tended to use information more effectively and efficiently (Angosto *et al.*, 2023; Zhu *et al.*, 2023). In this sector, DTs are important for employees who have an important role in the sustainability of the business (Stalmachova *et al.*, 2022). Therefore, DT can be used to understand the internal and external interactions of a sports business (Chen and Tian, 2022). Furthermore, in the fitness industry there are numerous family businesses, and for a correct management of these, it is necessary to reduce the gap in research related to DT, non-family employees and family businesses (Mousa and Arslan, 2023; Ratten *et al.*, 2023).

Sports businesses face significant opportunities and threats because of increasing competition with technological developments and rapidly changing environmental conditions (Ratten, 2024; Shahzad *et al.*, 2022). This situation creates the need for businesses to empower their employees to get maximum benefit from them. Empowerment can briefly be

explained as improving an existing process by making some changes or advances (Cimini *et al.*, 2020). The concept of empowerment is defined as increasing the efficiency of decision-making processes in organizations and thus rapidly adapting to constantly changing external environmental conditions (Çöl, 2008). In other words, it has been stated that empowerment is a way to maximize organizational change and performance with changes and improvements (Jeong, 2017). Employee empowerment has been recognised as an essential contributor to organizational success (Jose and Mampilly, 2014). Based on this concept Spreitzer (1995) defined psychological empowerment as a motivational construct manifested in four cognitions: meaning, impact, competence and self-determination. In our case, *meaning* is the value of a work goal or purpose, judged in relation to an individual's own ideals or standards (Thomas and Velthouse, 1990); and *competence* or self-efficacy is an individuals' belief in his or her capability to perform activities with skill (Gist, 1987). Therefore, the *meaning competence* is the individual's proposal about the beliefs they have in their abilities to perform their jobs in accordance with their ideals. Finally, *self-determination* reflects autonomy in the initiation and continuation of work behaviours and processes (Spreitzer, 1995).

In their study, Jeong *et al.* (2019) emphasized the relationship between empowerment and organizational culture and organizational citizenship behaviour and pointed out the contribution of empowerment to sport management. Empowerment behaviours in sports family businesses will both contribute to the professionalization of the non-family employees and affect their job performance. It is important to note that the expertise of non-family employees in family businesses helps business innovation due to the recognition of the owners of these businesses (Ahluwalia *et al.*, 2017). Generally, managers and non-family employees can play relevant roles in family businesses (Soltanifar *et al.*, 2023). These authors identified that in family business there is usually a tendency to ignore non-family employees in lower roles.

Thus, training employees is a good way to keep their knowledge base updated improve their ability to participate in family business innovation (Ahluwalia *et al.*, 2017). Dekker *et al.* (2015) evidenced that the effect that the involvement of non-family employees can have on firm performance depends on the family's engagement in the family's professionalization process. That is, relational mechanisms stemming from family social capital can act as substitutes for formal practices aimed at fostering the involvement and commitment of non-family employees and that these mechanisms depend on the degree of family involvement in the governance of the firm (Pittino *et al.*, 2016).

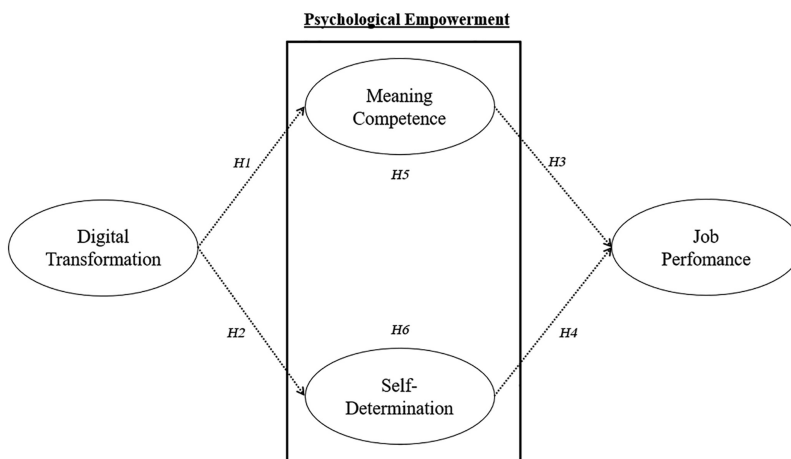
The measurement that expresses the process of evaluating and rating a person, unit or institution according to a set of predetermined criteria or similar ones in the same business line is evaluated as job performance (Mohrman *et al.*, 1989). Job performance can be defined as "a person's ability to perform his/her job effectively" (Giri and Kumar, 2010, p. 138). Another similar definition considers job performance "as an individual's effort to fulfill workplace responsibilities" (Obrenovic *et al.*, 2020, p. 4). Job performance evaluation is very important in terms of feedback, in-service training, and development. Individuals who are expected to behave in accordance with the job roles assigned to them by others may show different performance behaviours as a result of situational limitations or improvements in the work environment (Yelboğa, 2008).

In order to gain the power to compete in their sector, employees as well as employers must use skills and career development tools that will increase their job performance (Sonntag and Frese, 2002). In the rapidly developing and changing world of technology, institutions can quickly reach their goals by bringing raw material in their hands together with the information in a large information pool by pursuing institutional goals, thanks to human awareness. Individuals who are included in the institutional structure as a conscious workforce can show quality performance by using technology in favour of their needs and the needs of the institution. At this point, the integration of technological developments into

performance by the institution and the individual, the harmony of employees' development and goals with the institution and providing institutional support to the individual are factors affecting each other (Daft, 2000).

Organizing training programmes appropriate for the age, body type, health status and personal expectations of individuals and applying personalized programmes with the support of fitness professionals such as personal trainers and life coaches have become a very common sectorial necessity and change today (Klein and Sychalska-Wojtkiewicz, 2020). From this point of view, it is very important for fitness professionals working in sports businesses to be able to create a balance between technological developments, institutional goals and customer expectations. The job performance of employees forms a direct bridge between the customer and the institution (Kalogiannidis, 2020). The success of reaching a high-level performance with the success of personal and institutional digital harmony and empowerment support are factors that will carry both the individual and the institution further within the sectorial competition. In line with this purpose, the following hypotheses have been put forward (Figure 1):

- H1. There is a positive relationship between the digital transformation status and the meaning-competence status of employees working in fitness family business.
- H2. There is a positive relationship between the digital transformation status and the self-determination status of employees working in fitness family business.
- H3. There is a positive relationship between the meaning-competence status and the job performance of employees working in fitness family business.
- H4. There is a positive relationship between the self-determination and job performance of employees working in fitness family business.
- H5. The meaning-competence status of employees working in fitness family business brings about an indirect effect between digital transformation and job performance.
- H6. The self-determination of employees working in fitness family business causes an indirect effect between digital transformation and job performance.



Source(s): Authors own creation

Figure 1.
Proposed model

3. Methods

3.1 Participants and procedure

In the study, convenience sampling technique, a non-random sampling method, was used. The data were collected from fitness centres engaged in family business in Turkey. The participants included in the research were selected from family businesses that have franchises in many different cities in Turkey and have at least 25 fitness centres employees. Fitness sector employees in Turkey are recruited from among individuals with coaching and sports management skills who have received training from the Sports Sciences Faculties of universities. In addition, employees must have a coaching certificate in various sports branches.

The questionnaire in forms were delivered to the participants via structured electronic communication (Google Forms) and were collected again in the same way. The created form was delivered to the participants via e-mail. With these tools, a total of 450 participants were sent forms (Table 1), but feedback was received from 334 (202 male and 102 female fitness family business employees). Hair *et al.* (2019) stated that this number of responses meets the basic rule of minimum sample size required to run structural equating modelling (SEM). In addition, G*power v3.1.9.4 software was used to calculate the required minimum sample size based on statistical power. As a result of the analysis, a sample size of 107 was found to be sufficient to reach a statistical power of 0.95 with an effect size of 0.05 (Faul *et al.*, 2009).

3.2 Instruments

In this study, four different scales were used to collect data. Details about the scales are given below. The demographic characteristics included personal information of the participants such as gender, education, working status, age, income, working times, etc. The digital transformation scale consisted of three factors and 12 items. This scale was developed by Kumar (2016) and adapted into Turkish by Yıldırım (2020). Items 1 to 4 measure the factor of the digital revolution on human resource development. Items 5 to 8 measure the factor of the digital revolution on talent management. Items 9 to 12 measure the factor of the digital revolution on performance management. The empowerment perceptions scale was measured by an adaptation of the scale from Spreitzer (1995) and adapted to Turkish by Çöl (2008). The adapted scale was two factors, meaning competence with six items and self-determination with three items. To measure the employees' perceived job performance, the study used the job performance scale (Kirkman and Rosen, 1999) adapted by Sigler and Pearson (2000) with four items. The participants responded to each item using a five-point scale (1 = strongly disagree, 5 = strongly agree).

Variable	Groups	f	%	Total	\bar{x}	S	Min	Max
Gender	Female	102	33.6	304				
	Male	202	66.4					
Education	High School	38	12.3					
	Bachelor	226	74.3					
	Postgraduate	40	13.2					
Working status	Part-time	66	37.3					
	Full-time	111	62.7					
Age					29.09	6.938	18	50
Income (\$)					175.20	130.81	55.72	2.786
Working time (Years)					4.262	4.42	1	25

Table 1.
Descriptive statistics
(Measures of
percentage, frequency,
average and currency)

Source(s): Authors' own creation

3.3 Data analysis

In order to evaluate the correlations in the created model, the analyses were conducted by using the Partial Least Squares Structural Equation Modelling (PLS-SEM) approach supported by Smart-PLS® 3.2.8 software. PLS-SEM is a method which uses weighted components of indicator variables to minimize the unexplained variance and to ease responsibility for measurement errors (Hair *et al.*, 2012; Ringle *et al.*, 2015). This software also determines the structure of dependent variables and measures the effects of each independent variable on the dependent variable (Henseler *et al.*, 2009). Mardia's (1970) multivariate normality analysis was used to test the normality of the study data. Harman's single factor test was applied to minimize the impairment of the relationship between the research variables resulting from common method bias. In addition, the 5,000 bootstrapping procedures recommended by Hair *et al.* (2019) was used to evaluate the measurement and structural model.

Normality test: Mardia's (1970) multivariate normality test was used to test the multivariate normality distribution of the study data (Cain *et al.*, 2017). A web-based application developed by Zhang and Yuan (2018) was used for this analysis. Multivariate normality analysis is important to show the accuracy of the model. As a result of the multivariate analysis of normality, it was found that Mardia's multivariate Skewness ($\beta = 320.4981$, $p < 0.01$) and multivariate Kurtosis ($\beta = 1071.957$, $p < 0.01$) indicated multivariate non-normality. PLS-SEM was preferred because it can process non-normal data well (Hair *et al.*, 2019).

Common method bias (CMB): In studies conducted in social sciences, collecting cross-sectional data from the same source may lead to bias in research results. This may cause errors in analysis findings related to the model between theoretical structures (Podsakoff *et al.*, 2003). To avoid this situation, common method variance was controlled. Harman's single factor analysis is one of the most common methods of determining whether probability exists (Podsakoff *et al.*, 2003). In this context, as a result of the analysis, Harman's single factor test was applied, and it was found that it explained 31.827% of the total variance. These results show that it is lower than the stated 50% threshold (Fuller *et al.*, 2016).

4. Results

A two-step procedure was conducted to evaluate the measurement model and structural model (Anderson and Gerbing, 1988) by using a bootstrapping technique with SmartPLS 3, which is appropriate to explain the variance of endogenous structures (Hair *et al.*, 2012). First, it was found that composite reliability (CR) values were greater than the recommended 0.70 and the internal consistency coefficients were appropriately very high. Average variance extracted (AVE) was found to be higher than the acceptable threshold of 0.5 and thus convergent validity was confirmed (Table 2).

The Heterotrait-Monotrait Ratio (HTMT) expresses the ratio of the mean of the correlations of the statements of all the variables in the study to the geometric mean of the correlations of the statements of the same variables (Henseler *et al.*, 2015). Kline (2015) stated that it should be below 0.90 for theoretically close concepts and below 0.85 for theoretically distant concepts. It can be seen that the values in our research model are below 0.85 (Table 3).

PLS bootstrapping analysis was run in Smart-PLS 3.2.8 (Hair *et al.*, 2014, 2017, 2021) and the hypotheses in the model were tested (Table 4). In relation to the direct effects, the results indicate that DT positively and significantly ($p < 0.000$) influences both Meaning Competence (H1: $\beta = 0.344$) and Self-Determination (H2: $\beta = 0.320$). Therefore, H1 and H2 were confirmed. H3 was also confirmed as there was a positive and significant relationship between Meaning Competence on Job Performance ($\beta = 0.582$), being the strongest relationship. In contrast, H4 was rejected as Self-Determination did not have a significant

Scales	Text	Outer loadings	Rho_A	CR	AVE	α					
Digital transformation	Digital revolution develops my ICT knowledge at work	0.763	0.938	0.941	0.573	0.932					
	Digital revolution develops my cognitive skills at work	0.813									
	Digital revolution assists me in continuous professional development	0.760									
	Digital revolution enhances my career advancement at work	0.685									
	Digital revolution makes me creative at work	0.736									
	Digital revolution broadens my talent at work	0.766									
	Digital revolution brings change and transformation in me compared to the past	0.718									
	Digital revolution qualifies me for a higher position at work	0.725									
	Digital revolution improves my productivity at work	0.825									
	Digital revolution enhances my customer service at work	0.697									
	Digital revolution adds value to the work that I handle	0.785									
	Digital revolution enhances my responsiveness and adaptation to flexible and productive work	0.811									
	Meaning competence	The work I do is very important to me					0.732	0.844	0.884	0.560	0.843
		My job activities are personally meaningful to me					0.774				
The work I do is meaningful to me		0.741									
I am confident about my ability to do my job		0.764									
I am self-assured about my capabilities to perform my work activities		0.777									
I have mastered the skills necessary for my job		0.697									
Self-determination	I have significant autonomy in determining how I do my job	0.899	0.894	0.928	0.811	0.883					
	I can decide on my own how to go about doing my work	0.936									
	I have considerable opportunity for independence and freedom in how I do my job	0.866									
Job performance	I complete my tasks on time	0.664	0.766	0.843	0.574	0.752					
	I meet or exceed my goals	0.781									
	I make sure that services meet or exceed quality standards	0.806									
	I respond quickly when problems come up	0.771									
Source(s): Authors' own creation											

Table 2. Construct validity and reliability second stage results

influence on Job Performance ($p > 0.000$). Regarding the indirect effects of DT on Job Performance, the results indicated that Meaning Competence was a significant moderating

Models	Analysis type	Scales	DTS	M	S	JP	Perceived effect of digital transformation
Measurement Model I	Fornell-Larcker criterion	Digital transformation	0.757				
		Meaning competence	0.344	0.748			
		Self-determination	0.320	0.509	0.901		
	Heterotrait-monotrait ratio (HTMT)	Job performance	0.450	0.608	0.347	0.758	
		Digital Transformation					
		Meaning competence	0.381				
		Self-determination	0.338	0.588			
		Job performance	0.540	0.747	0.430		

Note(s): * Root square of AVE- HTMT<0.85 (Kline, 2015). Note: DTS, digital transformation; M, meaning competence; S, self-determination; JP, job performance
Source(s): Authors own creation

Hypotheses	Paths	(β)	SD	t-value	P	Cronbach's alpha (%2.5) (%97.5)		Results
	<i>Direct Effect</i>							
H1	Digital transformation →Meaning competence	0.344	0.054	6.378	0.000	0.241	0.454	Confirmed
H2	Digital transformation →Self determination	0.320	0.055	5.848	0.000	0.213	0.429	Confirmed
H3	Meaning competence →Job performance	0.582	0.043	13.473	0.000	0.501	0.671	Confirmed
H4	Self-determination →Job performance	0.051	0.057	0.890	0.374	-0.064	0.152	Rejected
	<i>Indirect Effect</i>							
H5	Digital transformation →Meaning competence → Job performance	0.200	0.040	5.037	0.000	0.133	0.292	Confirmed
H6	Digital transformation →Self-determination → Job performance	0.016	0.020	0.800	0.424	-0.021	0.056	Rejected

Source(s): Authors' own creation

Table 4. Internal Loadings, path coefficients and T values

variable ($\beta = 0.200$), confirming H5. H6 was rejected, as Self-determination did not act as a moderating variable between DT and Job Performance ($p > 0.000$).

When the VIF (Variance Inflation Factor) values between variables were examined as a result of the analysis conducted for the created model (Table 5), it was found that the values were below the threshold value of 5 and that there was thus no linearity problem between the variables (Hair et al., 2017). When the R^2 values of the model were examined, DT variable explained 12% of the meaning-competence variable, while it explained 11% of the self-determination variable. In addition, it was found that the meaning-competence and self-determination variables explained 37% of the job performance variable. An effect size coefficient (f^2) of ≥ 0.02 is evaluated as a low effect, while an effect size of ≥ 0.15 is evaluated as a moderate effect and ≥ 0.5 is evaluated as a high effect (Cohen, 1988). According to Sarstedt et al. (2021), it is not possible to talk about an effect when the coefficient is < 0.02 . When the

effect size coefficients (f^2) were examined, it was found that the DT variable affected the meaning-competence and self-determination variables at a low level. In addition, while it was observed that the meaning-competence variable affected the job performance variable moderately, it did not affect the self-determination variable. The fact that the predictive power coefficients (Q^2) calculated for endogenous variables are greater than zero shows that the research model has the power to predict endogenous variables (Hair *et al.*, 2017). Since the Q^2 values in the table are greater than zero, it can be said that the research model has the power to predict the variables of meaning-competence, self-determination, and job performance. Finally, the overall predictive power of the model was estimated by using Goodness of Fit (GoF) with the formula given below.

$$GoF = \sqrt{AVE} + \sqrt{R^2}$$

The geometric mean of mean AVE and mean R^2 (for endogenous structures) were used to calculate the fit values of the model. Wetzels *et al.* (2009) proposed predictive values to evaluate GoF analysis. These are GoF = 0.10 (small), GoF = 0.25 (moderate) and GoF = 0.36 (large). The mean AVE value was 0.629, while the mean R^2 value was 0.197. According to this report, observed GoF value for the model was calculated as 0.352 and it was found that the model showed a fit close to a good fit.

5. Discussion

The information age in which we live is experiencing rapid mobility, especially after the COVID-19 pandemic, the DT having changed the everyday life of society to become highly dependent on technology (AlNasrallah and Saleem, 2022). This process of digitization enables users to obtain and consume information quickly. As in all sectors, this process of transport and production in information technologies affects the sports industry, especially in family business, with all its processes and structures, especially the fitness sector (Cecere and Bernardi, 2023). Thus, the sustainable structure of companies must be adapted to the DT process of the 21st century. DT is evolving in parallel to innovation processes in family businesses by modifying their knowledge management and innovation performance (Radicic and Pugh, 2017). Moreover, DT is more likely to occur in family businesses, since, unlike other types of businesses, family businesses are more agile and can adapt their business model more quickly (Ferrao and Cristiano, 2021; Xie *et al.*, 2023).

AlNasrallah and Saleem (2022) consider digitalization to be one of the transformations that best contributes to sustainability. The quick development of digitalization and its pervasive effects has taken a prominent place in the business strategy of family business management (Nieto *et al.*, 2023). Several studies have shown that DT helps to promote firm innovation, enhance customer consumption, and improve firm performance (Chen and Tian, 2022; Martinez-Caro *et al.*, 2020; Stegmann *et al.*, 2023; Zaki, 2019). At this point, employees' job performance and adaptation processes can be considered as important elements being greatly influenced by DT. Therefore, companies should try to improve their employees from

Variables		VIF	R^2	f^2	Q^2
Digital transformation	Meaning competence	1.000	0.118	0.134	0.061
	Self-determination	1.000	0.102	0.114	0.079
Meaning competence	Job performance	1.349	0.371	0.399	0.205
Self-determination				0.003	

Table 5. Structural model result table of the model

Source(s): Authors' own creation

the perspective of their visions and missions through their training (Demerouti, 2022). Considering that employees' job performance is vital for achieving companies' strategic goals (Yildiz, 2017), motivating employees seems to be important for companies in terms of sustainability.

It is also likely that the inclusion of new digital technologies will not only change the behaviour of employees (family and/or non-family) but also transform consumer behaviour by challenging traditional business rules (Verhoef *et al.*, 2021). The factors of capability, willingness and environment can be effective in revealing job performance (Koca and Yildiz, 2018). Family business need to structure the working conditions, equipment, and resources of their employees well, especially for environmental factors to be formed (Ratten *et al.*, 2023). In this fashion, Kraus *et al.* (2021) consider that DT becomes a necessity to manage all these societal needs and expectations. For example, a recent review found that the thematic of dynamic capabilities has been the one most studied (Kraus *et al.*, 2022).

From this point of view, the adaptation of fitness facilities' employees to the DT process may also affect their job performance. In their study, Sevilmiş and Şirin (2022) stated that the DT process changed traditional strategies and structures and created new business opportunities. These developments have led fitness family business to have to adapt to new technologies by abandoning traditional business approaches to improve their performance and adapt their workers to user needs. Hence, with the entry of digital technologies into people's business and social lives, fitness centres have started to use digitalization more intensively in all business processes at all levels.

These results are relevant because, as discussed above, family businesses in some countries are prioritized and promoted due to the success of many well-known family businesses (Ratten, 2023). In the context of the analysed family fitness companies, it allows for the creation of complex affective and social bonds between employees by sharing ties in their workplace (Martínez *et al.*, 2019). It is important to bear in mind that family businesses are a complex form of business because of the social changes that occur in the family (Ratten, 2021). Thus it is important to pay attention to the dynamic interactions of social attitudes among its members and the resources that family firms have at their disposal (Ratten, 2021). Ferreira *et al.* (2020) considered that family sports businesses should take into account the influence and effect of the family on them. Given the contribution that family businesses have on the economy of countries (Glyptis *et al.*, 2021), analysing the performance of their employees and how DT and competition influences it is important for their success.

The results of the model have proven that H1 was confirmed, where DT influences meaning competition. Based on empowerment, the concept of *meaning* is the value of the purpose of a task for the employees of a family business. This value is put forward by the employees within the framework of the standards that they have and compliance (Çöl, 2008). Through technological innovation, fitness family business will be able to more effectively ensure both employee loyalty to the company and company sustainability. In this way, the digitalization processes of fitness family business will increase the harmony between job requirements and the values and behaviours of employees and in this way create efficiency in terms of business. Competence is the belief of individuals in their abilities to perform their work in the best possible way (Çöl, 2008). The ease of work provided by DT will enable the fitness sector to perform its work faster and more efficiently, facilitating the fitness centre management processes (León-Quismondo *et al.*, 2020). It should be remembered that the main objective of DT is to solve challenges related to efficiency and effectiveness (Kraus *et al.*, 2022).

It has also been found that DT influences self-determination (H2). Fitness centres require an autonomous structure in terms of working principles and customer potential. Therefore, the family business's employees must have the ability to use initiative by increasing their motivation through DT processes. People who use their initiative can play an effective role in

initiating, maintaining, and solving any activity (Hu and Leung, 2003). Therefore, the DT process will have an important effect on individuals' autonomous performance by expanding their areas of initiative use. However, self-determination is not a factor that directly influenced job performance (Hypothesis 4) or acted as a mediating variable between DT and job performance (hypothesis 6). Both hypotheses were rejected.

The results found in the research model show that hypothesis 3 is confirmed: meaning competence affects job performance. The fact that employees consider the purpose of a task as an important element (Çöl, 2008) will naturally influence employees' job performance. The belief of employees in the fitness sector that they will do their job in the best possible way will have a positive effect on their job performance. For example, Sabuhari *et al.* (2020) found similar results in postal employees in Indonesia. H5 about DT having an indirect effect on job performance through meaning competence was found to be confirmed. For employees in the fitness sector, the belief that companies have an innovative structure will have a positive effect on employees' beliefs and behaviours in performing their tasks. Naturally, this effect will significantly change the job performance of companies entering the DT process. In addition, high employee performance will facilitate the work of managers, contribute to the tranquillity of the workplace (Yıldız, 2015), and consequently provide higher quality service to customers. The fitness industry, which has a very intensive mobility cycle, has been assessed as a very suitable area for digitalization (Jones *et al.*, 2020; Miragaia *et al.*, 2019).

Ultimately, moving users' workouts in fitness centres to virtual platforms will provide significant gains in both time and performance for both customers and employees (Zhang and Sun, 2024). As demonstrated during the pandemic in organized sport (Ehnold *et al.*, 2020), the fact that the DT process has made fitness industry information faster and more accessible through digital tools has provided an important foundation for people to start their fitness journey. This situation has increased the mobility of employees in the sector in digital environments and their job performance. However, it is also necessary to consider the training processes and digital skills of the employee in the use of new digital tools.

The relationship of employees with the owners of the family business may have an influence on the contribution to the innovation of its products or services, as employees have an interest in the best performance of the firm (Ahluwalia *et al.*, 2017). Williams *et al.* (2018) found the leadership of family businesses by family or non-family managers may have different objectives. These authors considered that it may be because family managers would focus on the security of the firm or avoiding potential losses or failures. In contrast, non-family managers may have a goal oriented towards seeking opportunities or profit. It is important to note that in order to develop innovative services, family businesses need external expert knowledge and competences to advise them (Rondi *et al.*, 2021). However, this effort might compromise their socio-emotional wealth or not suit the family's non-economic objectives (Filser *et al.*, 2018).

6. Conclusions

As a conclusion, the digital transformation process in fitness sector can be considered as an important factor in terms of creating new business ventures. In other words, DT process will trigger the information management processes of family businesses. This situation will increase the performance of employees and the family business positively.

The findings of this study provide useful information for practitioners (e.g. fitness centre managers) to understand both the opportunities and challenges arising from the DT of employees in family business. These results allow for a better understanding of employee job performance in fitness family business, where DT also plays an essential role in employee motivation even if this self-determination does not affect job performance. At the same time,

the results will as well enable fitness family business to better position themselves when it comes to digitizing their processes to increase employee loyalty and satisfaction and to pass this on to users.

Based on these results, this study presents some practical implications for managers of family businesses. When dealing with DT processes in family businesses, managers (family or non-family) should take into account the skills and competences of employees rather than their motivation. In other words, when dealing with innovation processes through the digitalization of products or services, they must be aware of the competence of their employees to use the digital tools or devices to be implemented in the company's processes. With this consideration in mind, the DT of the family business can be done successfully and effectively.

Managers of family businesses should also consider employing experts from outside the company to support the DT processes of the company. Having experts from outside the family business during the process would enhance the competences of employees (family and/or non-family) to use new technologies and to adopt the company's innovation processes more quickly. These aspects would reinforce the importance of employees' sense of meaning competence, since, as the results show, if employees have high values, their work performance will be much higher. For family businesses, especially small businesses, this leads to higher productivity through service innovation and adaptability to the company's objectives.

6.1 Limitations and future research

This research has several limitations which are discussed below. Firstly, the data obtained cannot be generalized as the sampling was purposive, considering the accessibility of the fitness family business and the voluntary response of the participants. Secondly, only 25 fitness family business in Turkey were considered, not all fitness family business in Turkey or other companies in other countries. In addition, the use or non-use of technologies by the fitness family business or the level of digitalization of the employees was not considered. On the other hand, only quantitative data was used in this study, and it is possible that employees' data could be biased to show their employment situation well. Similarly, it would also be necessary to evaluate not only the internal client (employees) but also the external client (users) to better compare the digital transformation process. Also, only sports centres where services are offered have been considered, without assessing other types of organizations that offer sports products. Another limitation is the lack of sex and gender-based analyses. A final limitation may be the appropriateness of the variables selected for the study, discriminating against other important constructs such as leadership, satisfaction, or stress.

Future lines of research that can be carried out considering the results and limitations of the study are mentioned below. Future studies should consider probabilistic sampling in the sports family business under analysis to be able to generalize the results to these organizations. However, it would be more appropriate to consider all existing fitness family business in Turkey or to extend the sample to centres in other countries and to be able to analyse possible differences according to the level of development of the country, its location or culture. On the other hand, it would also be interesting to take into account the stage of digital transformation of the fitness family business and the level of digitalization of its employees or customers. In this line, future studies should analyse both the internal customer (employees) and how they influence the use of digitalization by users, using a mixed methodology. Furthermore, it would be interesting to be able to establish levels of digitalization to evaluate the digital transformation process of sports organizations (Ratten, 2024). Further research can compare the digital transformation of sports organizations that

offer services with those that sell products. Also, future studies should include sex and gender-based analyses. Finally, it would be of interest to be able to include new variables in the proposed model, such as the level of the workers' burnout, their level of commitment, empowerment, or satisfaction.

References

- Ahluwalia, S., Mahto, R.V. and Walsh, S.T. (2017), "Innovation in small firms: does family vs. non-family matter?", *Journal of Small Business Strategy*, Vol. 27 No. 3, pp. 39-49.
- AlNasrallah, W. and Saleem, F. (2022), "Determinants of the digitalization of accounting in an emerging market: the roles of organizational support and job relevance", *Sustainability*, Vol. 14 No. 11, p. 6483, doi: [10.3390/su14116483](https://doi.org/10.3390/su14116483).
- Anderson, J.C. and Gerbing, D.W. (1988), "Structural equation modeling in practice: a review and recommended two-step approach", *Psychological Bulletin*, Vol. 103 No. 3, pp. 411-423, doi: [10.1037/0033-2909.103.3.411](https://doi.org/10.1037/0033-2909.103.3.411).
- Angosto, S., García-Fernández, J. and Grimaldi-Puyana, M. (2023), "A systematic review of intention to use fitness apps (2020-2023)", *Humanities and Social Sciences Communications*, Vol. 10 No. 1, 512, doi: [10.1057/s41599-023-02011-3](https://doi.org/10.1057/s41599-023-02011-3).
- Appleton, S.W. and Holt, D. (2024), "Aligning strategy and digitalisation activity as an incremental or radical innovation in family farms", *International Journal of Entrepreneurial Behavior and Research*, Vol. 30 Nos 2/3, pp. 498-519, doi: [10.1108/IJEBR-10-2022-0938](https://doi.org/10.1108/IJEBR-10-2022-0938).
- Baltazar, J.R., Fernandes, C.L., Ramadani, V. and Hughes, M. (2023), "Family business succession and innovation: a systematic literature review", *Review of Managerial Science*, Vol. 17 No. 8, pp. 2897-2920, doi: [10.1007/s11846-022-00607-8](https://doi.org/10.1007/s11846-022-00607-8).
- Cain, M.K., Zhang, Z. and Yuan, K.H. (2017), "Univariate and multivariate skewness and kurtosis for measuring nonnormality: prevalence, influence and estimation", *Behavior Research Methods*, Vol. 49 No. 5, pp. 1716-1735, doi: [10.3758/s13428-016-0814-1](https://doi.org/10.3758/s13428-016-0814-1).
- Carbone, E., Cirillo, A., Saggese, S. and Sarto, F. (2022), "IPO in family business: a systematic review and directions for future research", *Journal of Family Business Strategy*, Vol. 13 No. 1, 100433, doi: [10.1016/j.jfbs.2021.100433](https://doi.org/10.1016/j.jfbs.2021.100433).
- Cecere, R. and Bernardi, P. (2023), "From crisis to opportunity: exploring the interplay between entrepreneurial processes and technological changes in Italian fitness industry", *International Journal of Entrepreneurship and Innovation Management*, Vol. 27 Nos 3-4, pp. 237-268, doi: [10.1504/ijeim.2023.10057583](https://doi.org/10.1504/ijeim.2023.10057583).
- Chen, H. and Tian, Z. (2022), "Environmental uncertainty, resource orchestration and digital transformation: a fuzzy-set QCA approach", *Journal of Business Research*, Vol. 139, pp. 184-193, doi: [10.1016/j.jbusres.2021.09.048](https://doi.org/10.1016/j.jbusres.2021.09.048).
- Cimini, C., Boffelli, A., Lagorio, A., Kalchschmidt, M. and Pinto, R. (2020), "How do industry 4.0 technologies influence organisational change? An empirical analysis of Italian SMEs", *Journal of Manufacturing Technology Management*, Vol. 32 No. 3, pp. 695-721, doi: [10.1108/JMTM-04-2019-0135](https://doi.org/10.1108/JMTM-04-2019-0135).
- Cohen, J. (1988), *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed., Lawrence Erlbaum Associates, New Jersey, NJ.
- Çöl, G. (2008), "The Effects of perceived empowerment on employee performance", *Doğuş University Journal*, Vol. 9 No. 1, pp. 35-46.
- Daft, R.L. (2000), *Management*, 5th ed., The Dryden Press, New York, NY.
- de Groote, J., Soluk, J., Laue, S.-L., Heck, M. and Kammerlander, N. (2023), "How can family-owned Mittelstand firms use their unique resources to master the digitalization age? The role of family historical, venture, and collaborative capital", *Business Horizons*, Vol. 66 No. 1, pp. 133-152, doi: [10.1016/j.bushor.2022.04.001](https://doi.org/10.1016/j.bushor.2022.04.001).

-
- Dekker, J., Lybaert, N., Steijvers, T. and Depaire, B. (2015), "The effect of family business professionalization as a multidimensional construct on firm performance", *Journal of Small Business Management*, Vol. 53 No. 2, pp. 516-538, doi: [10.1111/jsbm.12082](https://doi.org/10.1111/jsbm.12082).
- Demerouti, E. (2022), "Turn digitalization and automation to a job resource", *Applied Psychology*, Vol. 71 No. 4, pp. 1205-1209, doi: [10.1111/apps.12270](https://doi.org/10.1111/apps.12270).
- Ehnold, P., Faß, E., Steinbach, D. and Schlesinger, T. (2020), "Digitalization in organized sport—usage of digital instruments in voluntary sports clubs depending on club's goals and organizational capacity", *Sport, Business and Management: An International Journal*, Vol. 11 No. 1, pp. 28-53, doi: [10.1108/SBM-10-2019-0081](https://doi.org/10.1108/SBM-10-2019-0081).
- Ernst and Young (2018), "EandY global family business survey", available at: www.ey.com (accessed 15 May 2023).
- Faul, F., Erdfelder, E., Buchner, A. and Lang, A.G. (2009), "Statistical power analyses using G* Power 3.1: tests for correlation and regression analyses", *Behavior Research Methods*, Vol. 41 No. 4, pp. 1149-1160, doi: [10.3758/BRM.41.4.1149](https://doi.org/10.3758/BRM.41.4.1149).
- Ferraro, O. and Cristiano, E. (2021), "Family business in the digital age: the state of the art and the impact of change in the estimate of economic value", *Journal of Risk and Financial Management*, Vol. 14 No. 7, pp. 1-17, doi: [10.3390/jrfm14070301](https://doi.org/10.3390/jrfm14070301).
- Ferreira, J.J., Fernandes, C., Ratten, V. and Miragaia, D. (2020), "Sports innovation: a bibliometric study", in Ratten, V. (Ed.), *Sport Entrepreneurship and Public Policy*, Springer International Publishing, New York, NY, pp. 153-170.
- Filser, M., De Massis, A., Gast, J., Kraus, S. and Niemand, T. (2018), "Tracing the roots of innovativeness in family smes: the effect of family functionality and socioemotional wealth", *Journal of Product Innovation Management*, Vol. 35 No. 4, pp. 609-628, doi: [10.1111/jpim.12433](https://doi.org/10.1111/jpim.12433).
- Fuller, C.M., Simmering, M.J., Atinc, G., Atinc, Y. and Babin, B.J. (2016), "Common methods variance detection in business research", *Journal of Business Research*, Vol. 69 No. 8, pp. 3192-3198, doi: [10.1016/j.jbusres.2015.12.008](https://doi.org/10.1016/j.jbusres.2015.12.008).
- Gagné, M., Marwick, C., Brun de Pontet, S. and Wrosch, C. (2021), "Family business succession: what's motivation got to do with it?", *Family Business Review*, Vol. 34 No. 2, pp. 154-167, doi: [10.1177/0894486519894759](https://doi.org/10.1177/0894486519894759).
- Giri, V.N. and Pavan Kumar, B. (2010), "Assessing the impact of organizational communication on job satisfaction and job performance", *Psychological Studies*, Vol. 55 No. 2, pp. 137-143, doi: [10.1007/s12646-010-0013-6](https://doi.org/10.1007/s12646-010-0013-6).
- Gist, M.E. (1987), "Self-efficacy: implications for organizational behavior and human resource management", *Academy of Management Review*, Vol. 12 No. 3, pp. 472-485, doi: [10.5465/amr.1987.4306562](https://doi.org/10.5465/amr.1987.4306562).
- Glyptis, L., Hadjielias, E., Christofi, M., Kvasova, O. and Vrontis, D. (2021), "Dynamic familiness capabilities and family business growth: a longitudinal perspective framed within management accounting", *Journal of Business Research*, Vol. 127, pp. 346-363, doi: [10.1016/j.jbusres.2021.01.019](https://doi.org/10.1016/j.jbusres.2021.01.019).
- Gradillas, M. and Thomas, L.D.W. (2023), "Distinguishing digitization and digitalization: a systematic review and conceptual framework", *Journal of Product Innovation Management*, doi: [10.1111/jpim.12690](https://doi.org/10.1111/jpim.12690).
- Hair, J.F., Ringle, C.M. and Sarstedt, M. (2012), "Partial least squares: the better approach to structural equation modeling?", *Long Range Planning*, Vol. 45 Nos 5-6, pp. 312-319, doi: [10.1016/j.lrp.2012.09.011](https://doi.org/10.1016/j.lrp.2012.09.011).
- Hair, J.F., Sarstedt, M., Hopkins, L. and Kuppelwieser, V.G. (2014), "Partial least squares structural equation modeling (PLS-SEM): an emerging tool in business research", *European Business Review*, Vol. 26 No. 2, pp. 106-121.
- Hair, J.F.Jr, Sarstedt, M., Ringle, C.M. and Gudergan, S.P. (2017), *Advanced Issues in Partial Least Squares Structural Equation Modeling*, Sage Publications, New York, NY.

-
- Hair, J.F., Risher, J.J., Sarstedt, M. and Ringle, C.M. (2019), "When to use and how to report the results of PLS-SEM", *European Business Review*, Vol. 31 No. 1, pp. 2-24, doi: [10.1108/eb-11-2018-0203](https://doi.org/10.1108/eb-11-2018-0203).
- Hair, J., J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2021), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Sage Publications, New York, NY.
- Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009), "The use of partial least squares path modeling in international marketing", in Sinkovics, R.R. and Ghauri, P.N. (Ed.), *New Challenges to International Marketing*, Emerald Group Publishing, New York, NY, doi: [10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014).
- Henseler, J., Ringle, C.M. and Sarstedt, M.A. (2015), "New criterion for assessing discriminant validity in variance-based structural equation modelling", *Journal of The Academy of Marketing Science*, Vol. 43 No. 1, pp. 115-135, doi: [10.1007/s11747-014-0403-8](https://doi.org/10.1007/s11747-014-0403-8).
- Hu, S.L. and Leung, L. (2003), "Effects of expectancy-value, attitudes, and use of the Internet on psychological empowerment experienced by Chinese women at the workplace", *Telematics And Informatics*, Vol. 20 No. 4, pp. 365-382, doi: [10.1016/S0736-5853\(03\)00036-4](https://doi.org/10.1016/S0736-5853(03)00036-4).
- Jain, A., Thukral, S. and Paul, J. (2023), "Role of socioemotional wealth (SEW) in the internationalisation of family firms", *International Journal of Entrepreneurial Behavior and Research*, Vol. 29 No. 1, pp. 1-26, doi: [10.1108/IJEBR-12-2021-0961](https://doi.org/10.1108/IJEBR-12-2021-0961).
- Jeong, Y.D. (2017), *Structural Relationship Among Organizational Culture, Empowerment and Job Performance, and Comparison of Models-Focused on Professional Football Corporate Club and Citizen Club*, Kyonggi University, PhD thesis.
- Jeong, Y., Kim, E., Kim, M. and Zhang, J.J. (2019), "Exploring relationships among organizational culture, empowerment, and organizational citizenship behavior in the South Korean professional sport industry", *Sustainability*, Vol. 11 No. 19, p. 5412, doi: [10.3390/su11195412](https://doi.org/10.3390/su11195412).
- Jones, P., Ratten, V. and Hayduk, T. (2020), "Sport, fitness, and lifestyle entrepreneurship", *International Entrepreneurship and Management Journal*, Vol. 16 No. 3, pp. 783-793, doi: [10.1007/s11365-020-00666-x](https://doi.org/10.1007/s11365-020-00666-x).
- Jose, G. and Mampilly, S.R. (2014), "Psychological empowerment as a predictor of employee engagement: an empirical attestation", *Global Business Review*, Vol. 15 No. 1, pp. 93-104, doi: [10.1177/0972150913515589](https://doi.org/10.1177/0972150913515589).
- Kalogiannidis, S. (2020), "Impact of effective business communication on employee performance", *European Journal of Business and Management Research*, Vol. 5 No. 6, pp. 1-6, doi: [10.24018/ejbmr.2020.5.6.631](https://doi.org/10.24018/ejbmr.2020.5.6.631).
- Kirkman, B.L. and Rosen, B. (1999), "Beyond self-management: antecedents and consequences of team empowerment", *Academy of Management Journal*, Vol. 42 No. 1, pp. 58-74, doi: [10.5465/256874](https://doi.org/10.5465/256874).
- Klein, M. and Spychalska-Wojtkiewicz, M. (2020), "Cross-sector partnerships for innovation and growth: can creative industries support traditional sector innovations?", *Sustainability*, Vol. 12 No. 23, 10122, doi: [10.3390/su122310122](https://doi.org/10.3390/su122310122).
- Kline, R.B. (2015), *Principles and Practice of Structural Equation Modeling*, Guilford Publications, New York, NY.
- Koca, S. and Yıldız, S.M. (2018), "An Investigation of relationships among stress resources of football referees, job satisfaction and job performance", *Journal Sport Sciences Research*, Vol. 3 No. 2, pp. 195-207, doi: [10.25307/jssr.334624](https://doi.org/10.25307/jssr.334624).
- Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N. and Roig-Tierno, N. (2021), "Digital transformation: an overview of the current state of the art of research", *Sage Open*, Vol. 11 No. 3, p. 215824402110475, doi: [10.1177/21582440211047576](https://doi.org/10.1177/21582440211047576).
- Kraus, S., Durst, S., Ferreira, J.J., Veiga, P., Kailer, N. and Weinmann, A. (2022), "Digital transformation in business and management research: an overview of the current status quo", *International Journal of Information Management*, Vol. 63, 102466, doi: [10.1016/j.ijinfomgt.2021.102466](https://doi.org/10.1016/j.ijinfomgt.2021.102466).

- Kumar, B.N. (2016), "Digital revolution in the Mauritian public service: a human resource development perspective in two unrelated companies", *International Journal of Novel Research in Interdisciplinary Studies*, Vol. 3 No. 5, pp. 1-10.
- León-Quismondo, J., García-Unanue, J. and Burillo, P. (2020), "Best practices for fitness center business sustainability: a qualitative vision", *Sustainability*, Vol. 12 No. 12, p. 5067, doi: [10.3390/su12125067](https://doi.org/10.3390/su12125067).
- Leonardi, P.M. and Treem, J.W. (2020), "Behavioral visibility: a new paradigm for organization studies in the age of digitization, digitalization, and datafication", *Organization Studies*, Vol. 41 No. 12, pp. 1601-1625, doi: [10.1177/0170840620970728](https://doi.org/10.1177/0170840620970728).
- Loebbecke, C. and Picot, A. (2015), "Reflections on societal and business model transformation arising from digitization and big data analytics: a research agenda", *The Journal of Strategic Information Systems*, Vol. 24 No. 3, pp. 149-157, doi: [10.1016/j.jsis.2015.08.002](https://doi.org/10.1016/j.jsis.2015.08.002).
- Mardia, K.V. (1970), "Measures of multivariate skewness and kurtosis with applications", *Biometrika*, Vol. 57 No. 3, pp. 519-530, doi: [10.2307/2334770](https://doi.org/10.2307/2334770).
- Martínez, A.B., Galván, R.S., Seaman, C. and Palacios, T.M.B. (2019), "Factors contributing to familiarity degree in family firms", *International Journal of Business Innovation and Research*, Vol. 18 No. 4, pp. 503-527, doi: [10.1504/IJBIR.2019.098768](https://doi.org/10.1504/IJBIR.2019.098768).
- Martínez-Caro, E., Cegarra-Navarro, J.G. and Alfonso-Ruiz, F.J. (2020), "Digital technologies and firm performance: the role of digital organisational culture", *Technological Forecasting and Social Change*, Vol. 154, 119962, doi: [10.1016/j.techfore.2020.119962](https://doi.org/10.1016/j.techfore.2020.119962).
- Miragaia, D., Ferreira, J., Carvalho, A. and Ratten, V. (2019), "Interactions between financial efficiency and sports performance: data for a sustainable entrepreneurial approach of European professional football clubs", *Journal of Entrepreneurship and Public Policy*, Vol. 8 No. 1, pp. 84-102, doi: [10.1108/JEPP-D-18-00060](https://doi.org/10.1108/JEPP-D-18-00060).
- Mohrman, A.M., Restnick, W.S. and Lawler, E.E. (1989), "Designing performance appraisal systems: aligning appraisals and organizational realities", *Jossey Bass Publishing*, Vol. 13 No. 4, pp. 1306-1319.
- Mousa, M. and Arslan, A. (2023), "Responsible leadership practices in the hospitality sector family businesses: evidence from an emerging market", *Journal of Family Business Management*, Vol. 13 No. 4, pp. 1429-1442, doi: [10.1108/JFBM-01-2023-0008](https://doi.org/10.1108/JFBM-01-2023-0008).
- Nieto, M.J., Santamaria, L. and Bammens, Y. (2023), "Digitalization as a facilitator of open innovation: are family firms different?", *Technovation*, Vol. 128, 102854, doi: [10.1016/j.technovation.2023.102854](https://doi.org/10.1016/j.technovation.2023.102854).
- Obrenovic, B., Jianguo, D., Khudaykulov, A. and Khan, M.A.S. (2020), "Work-family conflict impact on psychological safety and psychological well-being: a job performance model", *Frontiers in Psychology*, Vol. 11, p. 475, doi: [10.3389/fpsyg.2020.00475](https://doi.org/10.3389/fpsyg.2020.00475).
- Payne, A.F., Storbacka, K. and Frow, P. (2008), "Managing the co-creation of value", *Journal of the Academy of Marketing Science*, Vol. 36 No. 1, pp. 83-96, doi: [10.1007/s11747-007-0070-0](https://doi.org/10.1007/s11747-007-0070-0).
- Pittino, D., Visintin, F., Lenger, T. and Sternad, D. (2016), "Are high performance work practices really necessary in family SMEs? An analysis of the impact on employee retention", *Journal of Family Business Strategy*, Vol. 7 No. 2, pp. 75-89, doi: [10.1016/j.jfbs.2016.04.002](https://doi.org/10.1016/j.jfbs.2016.04.002).
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a Critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903, doi: [10.1037/0021-9010.88.5.879](https://doi.org/10.1037/0021-9010.88.5.879).
- Radicic, D. and Pugh, G. (2017), "Performance effects of external search strategies in European small and medium-sized enterprises", *Journal of Small Business Management*, Vol. 55, pp. 76-114, doi: [10.1111/jsbm.12328](https://doi.org/10.1111/jsbm.12328).
- Ramadani, V. and Hoy, F. (2015), "Context and uniqueness of family businesses", in Dana, L. and Ramadani, V. (Eds), *Family Businesses in Transition Economies*, Springer International Publishing, New York, pp. 85-116.

-
- Ramadani, V., Bexheti, A., Rexhepi, G., Ratten, V. and Ibraimi, S. (2017), "Succession issues in Albanian family businesses: exploratory research", *Journal of Balkan and Near Eastern Studies*, Vol. 19 No. 3, pp. 294-312, doi: [10.1080/19448953.2017.1277086](https://doi.org/10.1080/19448953.2017.1277086).
- Rashid, S. and Ratten, V. (2020), "A dynamic capabilities approach for the survival of Pakistani family-owned business in the digital world", *Journal of Family Business Management*, Vol. 10 No. 4, pp. 373-387, doi: [10.1108/JFBM-12-2019-0082](https://doi.org/10.1108/JFBM-12-2019-0082).
- Ratten, V. (2020), "Digital transformation in sport and social media", in Ratten, V. (Edt.), *Sport Startups: New Advances in Entrepreneurship*, Emerald Publishing, New York, NY, pp. 83-104, doi: [10.1108/978-1-78973-081-420201007](https://doi.org/10.1108/978-1-78973-081-420201007).
- Ratten, V. (2021), "Family business and sport entrepreneurship", *Journal of Family Business Management*, Vol. 11 No. 3, pp. 300-312, doi: [10.1108/JFBM-05-2020-0041](https://doi.org/10.1108/JFBM-05-2020-0041).
- Ratten, V. (2023), "Editorial: a new definition of family business", *Journal of Family Business Management*, Vol. 13 No. 3, p. 545, doi: [10.1108/JFBM-09-2023-160](https://doi.org/10.1108/JFBM-09-2023-160).
- Ratten, V. (2024), *Artificial Intelligence, Digital Trends and Globalization: Future Research Trends*, FIIB Business Review, 23197145231222774.
- Ratten, V., Chrisman, J.J., Mustafa, M., Sciascia, S., Seaman, C., Discua Cruz, A. and Feranita, F. (2023), "Learning from family business researchers", *Journal of Family Business Management*, doi: [10.1108/JFBM-09-2023-0162](https://doi.org/10.1108/JFBM-09-2023-0162).
- Reis, J., Amorim, M., Melão, N. and Matos, P. (2018), "Digital transformation: a Literature review and guidelines for future research", in Rocha, A., Adeli, H., Reis, L.P. and Costanzo, S. (Eds), *Trends and Advances in Information Systems and Technologies. WorldCIST'18 2018. Advances in Intelligent Systems and Computing*, Springer, New York, NY, pp. 101-129, doi: [10.1007/978-3-319-77703-0_41](https://doi.org/10.1007/978-3-319-77703-0_41).
- Ringle, C.M., Wende, S. and Becker, J.M. (2015), *SmartPLS 3*, SmartPLS GmbH, Bönningstedt.
- Rondi, E., De Massis, A. and Kraus, S. (2021), "Servitization through open service innovation in family firms: exploring the ability-willingness paradox", *Journal of Business Research*, Vol. 135, pp. 436-444, doi: [10.1016/j.jbusres.2021.06.040](https://doi.org/10.1016/j.jbusres.2021.06.040).
- Sabuhari, R., Sudiro, A., Irawanto, D. and Rahayu, M. (2020), "The effects of human resource flexibility, employee competency, organizational culture adaptation and job satisfaction on employee performance", *Management Science Letters*, Vol. 10 No. 8, pp. 1775-1786, doi: [10.5267/j.msl.2020.1.001](https://doi.org/10.5267/j.msl.2020.1.001).
- Sarstedt, M., Ringle, C.M. and Hair, J.F. (2021), "Partial least squares structural equation modeling", in Homburg, C., Klarmann, M. and Vomberg, A. (Eds), *Handbook of Market Research*, Springer International Publishing, New York, NY, pp. 587-632.
- Sevilmiş, A. and Şirin, E.F. (2022), "Fitness and digital transformation in Turkey", in J., García-Fernández, M., Valcarce-Torrente, S., Mohammadi, P. and Gálvez-Ruiz (Eds), *The Digital Transformation of the Fitness Sector: A Global Perspective*, Emerald Publishing, New York, NY, pp. 39-48.
- Shahzad, M., Qu, Y., Rehman, S.U. and Zafar, A.U. (2022), "Adoption of green innovation technology to accelerate sustainable development among manufacturing industry", *Journal of Innovation and Knowledge*, Vol. 7 No. 4, 100231, doi: [10.1016/j.jik.2022.100231](https://doi.org/10.1016/j.jik.2022.100231).
- Sigler, T.H. and Pearson, C.M. (2000), "Creating an empowering culture: examining the relationship between organizational culture and perceptions of empowerment", *Journal of Quality Management*, Vol. 5 No. 1, pp. 27-52, doi: [10.1016/S1084-5868\(00\)00011-0](https://doi.org/10.1016/S1084-5868(00)00011-0).
- Soltanifar, M., Hughes, M., O'Connor, G., Covin, J.G. and Roijakkers, N. (2023), "Unlocking the potential of non-managerial employees in corporate entrepreneurship: a systematic review and research agenda", *International Journal of Entrepreneurial Behavior and Research*, Vol. 29 No. 11, pp. 206-240, doi: [10.1108/IJEBR-04-2022-0333](https://doi.org/10.1108/IJEBR-04-2022-0333).

- Soluk, J., Miroshnych enko, I., Kammerlander, N. and De Massis, A. (2021), "Family influence and digital business model innovation: the enabling role of dynamic capabilities", *Entrepreneurship Theory and Practice*, Vol. 45 No. 4, pp. 867-905, doi: [10.1177/1042258721998946](https://doi.org/10.1177/1042258721998946).
- Sonnentag, S. and Frese, M. (2002), "Performance concepts and performance theory", in Sonnentag, S. (Ed.), *Psychological Management of Individual Performance*, John Wiley & Sons, Lmt, New York, NY, pp. 587-632.
- Spreitzer, G.M. (1995), "Psychological empowerment in the workplace: dimensions, measurement, and validation", *Academy of Management Journal*, Vol. 38 No. 5, pp. 1442-1465, doi: [10.5465/256865](https://doi.org/10.5465/256865).
- Stalmachova, K., Chinoracky, R. and Strenitzerova, M. (2022), "Changes in business models caused by digital transformation and the COVID-19 pandemic and possibilities of their measurement—case study", *Sustainability*, Vol. 14 No. 1, p. 127, doi: [10.3390/su14010127](https://doi.org/10.3390/su14010127).
- Stegmann, P., Nagel, S. and Ströbel, T. (2023), "The digital transformation of value co-creation: a scoping review towards an agenda for sport marketing research", *European Sport Management Quarterly*, Vol. 23 No. 4, pp. 1221-1248, doi: [10.1080/16184742.2021.1976241](https://doi.org/10.1080/16184742.2021.1976241).
- Swaminathan, V., Sorescu, A., Steenkamp, J.B.E., O'Guinn, T.C.G. and Schmitt, B. (2020), "Branding in a hyperconnected world: refocusing theories and rethinking boundaries", *Journal of Marketing*, Vol. 84 No. 2, pp. 24-46, doi: [10.1177/0022242919899905](https://doi.org/10.1177/0022242919899905).
- Talimciler, A. (2002), "Futbolun 'meta'laşması", *Toplum Bilim*, Vol. 16, pp. 37-42.
- Thomas, K.W. and Velthouse, B.A. (1990), "Cognitive elements of empowerment: an interpretive model of intrinsic task motivation", *Academy of Management Review*, Vol. 15 No. 4, pp. 666-681, doi: [10.5465/amr.1990.4310926](https://doi.org/10.5465/amr.1990.4310926).
- Verhoef, P.C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Qi Dong, J., Fabian, N. and Haenlein, M. (2021), "Digital transformation: a multidisciplinary reflection and research agenda", *Journal of Business Research*, Vol. 122, pp. 889-901, doi: [10.1016/j.jbusres.2019.09.022](https://doi.org/10.1016/j.jbusres.2019.09.022).
- Wetzels, M., Odekerken-Schröder, G. and Van Oppen, C. (2009), "Using PLS path modeling for assessing hierarchical construct models: guidelines and empirical illustration", *MIS Quarterly*, Vol. 33 No. 1, pp. 177-195, doi: [10.2307/20650284](https://doi.org/10.2307/20650284).
- Williams, R.I., Pieper, T.M., Kellermanns, F.W. and Astrachan, J.H. (2018), "Family firm goals and their effects on strategy, family and organization behavior: a review and research agenda", *International Journal of Management Reviews*, Vol. 20 No. S1, pp. S63-S82, doi: [10.1111/ijmr.12167](https://doi.org/10.1111/ijmr.12167).
- Xie, X., Zhang, H. and Blanco, C. (2023), "How organizational readiness for digital innovation shapes digital business model innovation in family businesses", *International Journal of Entrepreneurial Behavior and Research*, Vol. 29 No. 1, pp. 49-79, doi: [10.1108/IJEBR-03-2022-0243](https://doi.org/10.1108/IJEBR-03-2022-0243).
- Yelboğa, A. (2008), "Kişilik özellikleri ve iş performansı arasındaki ilişkinin incelenmesi", *ISGUC The Journal of Industrial Relations and Human Resources*, Vol. 8 No. 2, pp. 196-217, doi: [10.4026/1303-2860.2006.0032.x](https://doi.org/10.4026/1303-2860.2006.0032.x).
- Yıldırım, B. (2020), *İşletmelerde Endüstri 4.0 Dijital Dönüşüm Süreci Ve Çalışan Motivasyonuna Etkileri*, Kırklareli Üniversitesi.
- Yıldız, S.M. (2015), *Lider-üye Etiklesimi, İşyerinde Mobbing Ve Mesleki Tükenmişlik İlişkisi*, Detay, Ankara.
- Yıldız, S.M. (2017), "The Mediating effect of social exchange between internal marketing and job performance", *Dokuz Eylül University Journal of Graduate School of Social Sciences*, Vol. 19 No. 1, pp. 105-118, doi: [10.16953/deusbed.85146](https://doi.org/10.16953/deusbed.85146).
- Zaki, M. (2019), "Digital transformation: harnessing digital technologies for the next generation of services", *Journal of Services Marketing*, Vol. 33 No. 4, pp. 429-435, doi: [10.1108/JSM-01-2019-0034](https://doi.org/10.1108/JSM-01-2019-0034).

Zhang, H. and Sun, Q. (2024), "The transformation mechanism of fitness clubs: pricing of joint fitness courses by online platforms and well-known coaches", *Journal of Retailing and Consumer Services*, Vol. 76, 103539, doi: [10.1016/j.jretconser.2023.103539](https://doi.org/10.1016/j.jretconser.2023.103539).

Zhang, Z. and Yuan, K.H. (2018), *Practical Statistical Power Analysis Using Webpower and R*, ISDSA Press, New York, NY.

Zhu, Y., Wang, R., Zeng, R. and Pu, C. (2023), "Does gender really matter? Exploring determinants behind consumers' intention to use contactless fitness services during the COVID-19 pandemic: a focus on health and fitness apps", *Internet Research*, Vol. 33 No. 1, pp. 280-307, doi: [10.1108/intr-07-2021-0454](https://doi.org/10.1108/intr-07-2021-0454).

Corresponding author

Salvador Angosto can be contacted at: salvador.a.s@um.es