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Examination of Business People's Attitudes Towards Virtual Trade Fairs *

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Abstract

The digitalization trend in the business world and the mandatory conditions that originated from COVID-19 increased the importance of virtual fairs. Determining the direction of attitudes of the business people, who participated in virtual fairs, will allow for having an idea about the future of these fairs. In addition, it is also essential to determine which company characteristics are associated with these attitudes. However, there are only few studies in the literature about virtual fairs, which have recently gained much importance. In this research, which aims to contribute to the literature, an online survey was conducted on 204 business people that participated in at least one virtual trade fair in 2022. The data collected was analyzed by using Exploratory Factor Analysis, K-means Clustering, and Chi-Square Test. The results showed that the firms generally have positive attitudes. The dimensions of these attitudes are related to the perceived usefulness of the Technology Acceptance Model. However, given the results of the Exploratory Factor Analysis, the items that represented the perceived ease of use are not effective. When the relationships between business characteristics and business people's attitudes towards virtual trade fairs were tested and no statistically significant relationship was found between the business's age or the business's size and attitudes. The only statistically significant relationship is the one between business people's judgment on the industry's suitability of the business and their attitude towards virtual trade fairs.

Keywords: Virtual trade fairs, Attitude, Digitalization, Technology Acceptance Model.

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1. INTRODUCTION

Digitalization changed the scope and pace of business activities. Thanks to the faster and easier transfer of values, it created new ecosystems for change and also helped businesses connect and consumers worldwide more easily (González & Ferencz, 2018). Digital technologies (a combination of information, computing, and communication technologies) radically transform business strategies, business processes, business capabilities, products, and services, and also enhanced business relationships (Bharadwaj et al., 2013).

Even though face-to-face communication has been an essential component of trade for centuries, time and cost concerns shifted communication channels to virtual alternatives. The COVID-19 pandemic accelerated this process. Digital technology drew increasingly more interest due to the changing economic conditions of the world and the expectations of businesses during the pandemic period. Because the COVID-19 pandemic forced many businesses and individuals to move from a predominantly physical world into a potentially temporary and digital one (Schneider & Kokshagina, 2021). However, mandatory changes in business activities might become preferable after the pandemic. For these virtual activities to be permanent, the business world must adapt to these activities and attain positive attitudes in parallel with their benefits. Otherwise, the previous conditions will return when the mandatory conditions are removed.

Trade fairs are one of the business activities affected by digital transformation and shifted remarkably to virtual environments during the COVID-19 pandemic. As a concept, a trade fair refers to "a planned event where manufacturers, distributors, and other vendors exhibit their products or promote their services to guests, including current and potential customers, suppliers, other business partners, and the press" (Bonoma, 1983). Especially the international ones, continue to function as early heralds of change and transformation in every field worldwide. On the other hand, virtual trade fairs are those: '*held in cyberspace, where all types of organizations (from small to large) use computer-mediated information technology (IT) with web-based capability can participate*' (Gani et al., 2021: 288).

As Lacka et al. (2020) revealed in their bibliometric analysis covering 50 years, "there is a scarcity of empirical studies examining technological advancements and B2B activities at international level, as well as local". In addition to this literature gap, virtual trade fairs are a relatively new phenomenon, and there is an ongoing debate about whether they will replace physical ones in the future (Lee-Kelley et al., 2004). So, the first motivation of this study is to create a vision regarding the future of virtual trade fairs in post pandemic period. The companies' receptivity to virtual trade fairs and their scope are questions to be addressed, in this context. Moreover, scientific research is cumulated in the Western world. Developing countries like Türkiye are still behind the Western world in researching this topic (Sarmento & Simoes, 2018). Origin of the research is important because attitudes are shaped under the shade of culture. Asian trade fairs take a more relational approach than Western counterparts' transactional tendencies (Li & Ze, 2024).

Critical questions still need to be answered, such as how business people perceive and embrace virtual trade fairs. These attitudes will determine the post-exhibition purchases and the next visits. These emerge as signals of an exhibition's performance in relation to visitors' perception. Besides, especially when visitors' long-term motives meet their participation goals, they will tend to confirm participation at the next edition of the event (Vitali et al., 2022). Kourkouridis et. al (2024) tried to answer this question in their research. However, the sample used, consisted of only 26 companies that attended at a virtual trade fair before. Consequently, the attitudes measured relied on the unexperienced business people and because of the sample restriction, analysis depend on graphics.

Another gap in virtual trade fair literature is that more research is focusing on differences among company characteristics and industries (Sarmento & Simoes, 2018). The present study aims to measure the attitudes of experienced Turkish business people towards virtual trade fairs and determine which business qualifications these attitudes relate to. Firstly, the findings will give some managerial insights regarding the future of these events. Some insights are supposed to answer questions such as: Will businesses continue participating in those events after the pandemic? Should fair organizers continue promoting these activities? In which areas can these events be improved? Secondly, the study will contribute to the academic literature, focusing on "virtual fairs" for the first time under the lights of technology adoption models. The wide range of sectorial scales in the sample may inspire new sectorial research.

The rest of this paper is organized as follows. In section 2, the past research related to virtual trade fairs, their comparison with physical ones, their future, and the theoretical background of the research are covered. Section 3 comprehensively outlines the methodology.

2. LITERATURE REVIEW

2.1. Virtual Fair as a Digitized B2B Event

Nowadays businesses face rapidly evolving changes and complexities that challenge their management structures and capabilities. Especially digitalization, which refers to using digital technologies to change a business model and provide new income/value generation opportunities or transition to a digital business (Gartner, 2018), has been one of the essential drivers of the new economy. This transformation is more prominent particularly in marketing communication because communication has shifted to digital and virtual fields and local and international face-to-face communication has decreased further (Silva & Elo, 2019).

The concept of "virtual event" refers to a business event or activity that connects two or more parties via technology. These events played a crucial role in business life during the COVID-19 period. While the restrictions caused by the COVID-19 pandemic significantly limited and affected the work of scientists and communicators, the pandemic has also encouraged the development of new networking and public engagement methods. People have adapted to virtual events together with the popularization

of webinars, online meetings, and digital resources (Munzi & Giovanetti, 2021). Roos et al. (2020) stated that virtual events, especially virtual conferences, are increasingly becoming a new reality. Similarly, Cardon et al. (2021) emphasized that the number of daily virtual meeting participants increased from 10 million to 300 million between January and April 2020 and the platforms supporting these meetings also grew. For example, Microsoft Teams grew from 50 million daily users to 145 million between 2019 and 2020.

The number of virtual events increases for several reasons. Virtual events and trade shows can be managed online, virtually eliminating the cost of travel, accommodation, and trade fair activities. Virtual events also create a smaller carbon footprint. Finally, this reduction in travel reduces the risk of downtime due to absenteeism (Pearlman & Gates, 2010).

Trade shows have traditionally been one of the best ways to enter or find a new market. Thanks to the fairs, businesses convey their messages regarding their products to many potential buyers simultaneously. In addition, they can gather information about the conditions of competition. From this perspective, a trade fair is an exhibition held for businesses operating in a particular industry to exhibit their new products and services and also examine and discover their competitors' activities (Palumbo, 2012).

Businesses can participate in fairs for various objectives and benefits. Those objectives include launching and introducing new products to potential customers (Shereni et al., 2021), gathering information about technological and strategic choices of competitors, suppliers, and customers (Bathelt & Spigel, 2012), developing brands, accessing to global customers, and enhancing relations with existing customers.

It can be seen that trade fairs and trade shows are used interchangeably in the literature. Gottlieb and Bianch (2017) define a virtual trade fair as: “A virtual trade show is a type of virtual event, where exhibitors and visitors connect with one another via a virtual environment (Internet), regardless of geographic location, to interact and exchange information.” Geigenmuller (2010), on the other hand, defines virtual trade fairs as multimedia web-based platforms, where customers, suppliers, and distributors can meet virtually anytime and anywhere and where the interactions consist of textual, visual, and acoustical components. The virtual trade fair is still very new as a concept and, as with many innovative technologies, it would take some time for those fairs to draw intense attention.

However, the COVID-19 pandemic increased businesses’ speed of gaining experience in this field. In that period, virtually organizing the fairs was the only alternative to canceling physical fairs. Center of Exhibition Industry Research (CEIR) (2021) stated that 71% of the organizers, who had to postpone their planned events during the COVID-19 period to 2021 and later, continued their activities by offering hybrid alternatives until 2021.

Willingly or by necessity, many business people participated in virtual trade fairs with the expectation of adding value to their businesses. The benefits expected from virtual trade fairs are similar to traditional ones. Businesses participate in virtual fairs to increase sales revenue, reduce costs, gain access to new or different markets, and build brand reputation and corporate legitimacy among visitors (Gottlieb & Bianch, 2017). Similarly, Vik et al. (2018) stated that the benefits of virtual fairs include visibility and branding, low costs, and analytics-based customization. In addition, more precise tools, such as gradual access permissions, distinguish between less qualified visitors, senior customers, and prospect buyers (Geigenmuller, 2010). Despite the overlap between expected benefits, there also are some researchers considering virtual fairs as a complement to traditional fairs rather than an alternative. Sarmento and Simoes (2019) argued that while virtual trade shows are an instrument for personal interaction with people as in physical trade fairs, they function as a catalyzer to promote interaction and connection before and after physical trade fairs.

2.2. Virtual Fairs Versus Physical Trade Fairs

As stated in the Innovation Adoption Model, business people tend to evaluate the advantages/disadvantages of the recent technology relative to the old one. It is essential to compare the physical and virtual trade fairs from the perspective of participants. Although the expectations from virtual fairs overlap with those from physical fairs, there are differences between the two regarding information flow and communication. The following comparison created by Bathelt and Schuldt (2010) reveals the advantages and disadvantages of physical and virtual fairs quite well.

As seen in Table 1, although information and communication technology utilized in virtual fairs has many disadvantages when compared to physical fairs, it also offers a few advantages. These advantages are related with convenience and access, whereas there also are disadvantages regarding relationship depth and focus.

As stated by previous researchers, providing access to busy business people attending virtual fairs at any time and the simplicity of finding and searching for the correct information are the factors making these events attractive. Pecherskaya et al. (2019) also emphasized the access and conveniences of virtual trade fairs. However, due to the ease of access, participants differing from the usual participants of physical fairs might gather in virtual fairs, which is considered to be a negative aspect. The focus brought by spatial unity is weaker in virtual fairs. The attendance of participants in the virtual fair while fulfilling their daily work routines negatively affects the communication process. Another factor that negatively affects the communication process is the limitedness of nonverbal communication components in virtual fairs. Considering the importance of nonverbal communication in contextual cultures, it is obvious how this disadvantage in virtual fairs can negatively affect communication.

Bathelt and Schuldt (2010) compared virtual and face-to-face fairs in terms of information and communication. However, it should be noted that virtual fairs can be more advantageous in terms of

cost and practicality. Virtual fairs can be considered to be a good alternative for a business that cannot participate in a physical fair due to time and financial constraints. The benefits of virtual fairs for SMEs might be more than the others.

Table 1. Comparison between Physical and Virtual Fairs Regarding Relationship Development

Global buzz during international trade fairs	Virtual buzz during virtual trade fairs
Global co-presence	
(+) High level of participation from different countries	(+/-) No requirement for the physical presence
(+) Unique business networking environment	(+) Ability to get fast and plain impressions about products/firms
(+) Participants share commitment and patience	(+) Ability to access all the time
(+) Daily routines rarely interrupt the process	(+) High connectivity for agents in isolated locations
(+) Critical self-reflection	(-) Scattered participants
(+/-) High accessibility of exhibitors	(-) Daily routines interrupt the virtual activity
Face-to-face interaction	
(+) Usage of non-verbal communication tools	(+) Ease of focused communication for existing partnerships
(+) Ease of conveying complicated messages and quick feedback	(-) Lack of eye-contact
(+) Decentralized information flows	(-) Hidden identities/intentions/agendas
(+) Permanent evaluation and re-evaluation of news	(-) Not sharing sensitive information for security concerns
(+) Reduced risks in establishing future partnerships	(-) Minimum sensible relations
Observation	
(+) In situ observation: inspection/"touch and feel"	(+) Ability to observe the web activities of participants
(+) Ability to observe the reactions of other participants	(-) Designs/products can only be imagined, not experienced
(+) Ability to visualize the competitors' positions	(-) Evaluation/interpretation as an isolated process
(+/-) Being reachable and meetable	
Focused communities	
(+) Diversity of practitioners and other participants who have other purposes	(+) Probability of randomly colliding with unrelated sectors
(+) Complementary/conflicting know-how bases	(-) Accessibility is more difficult for newcomers
(+) Ability to conduct high-quality business relationships	(-) The presence of a critical global scale company participant at any time is rare.
(+) Combined evaluations help individuals to decide	
(-) Existence of closed communities	
Multiplex meetings and relationships	
(+ /-) Variety of scheduled/unscheduled meetings	(+/-) A goal-dedicated approach
(+) Close relationships established with different participants	(+/-) Limited number of bilateral relations
(+) Effective feedback opportunity	(-) Risk of missing out on important possible partners
(+) Initial trust can be developed quickly	(-) Difficult to give and receive feedback
(+) Multiple channels derive from face-to-face contact	

Source: (Bathelt & Schuldt, 2010).

2.3. The Future of Virtual Trade Fairs

It is unknown if virtual trade fairs will be organized after the pandemic as frequently as during COVID-19. As stated by the World Bank, virtual tools including fairs are expected to increase after the pandemic. Trade Promotion Organizations plan to expand the use of all the virtual programs put in place

as COVID-related restrictions ease (Choi et al., 2023). However, the report focuses only on virtual fairs, not the hybrid ones. Porpiglia et al. (2020) proposed that human and technology should be combined. To achieve this objective, the unlimited potential of the digital world should be gradually integrated into the real world and open its doors to "hybrid" events. In other words, face-to-face activities should be combined with virtual activities. Thus, participants can enjoy the virtual content provided and interact with it in real-time. Therefore, hybrid alternatives should be considered rather than solely virtual and physical fairs.

The benefits, which businesses derive from previous virtual trade fairs, will determine their intention to participate in such events in the future. However, it should be determined if virtual fairs will be considered as an alternative or a complement to physical fairs or a completely different digital marketing tool. Moreover, technological advancements will continue, and the structure of virtual events will evolve. These changes also will shape future attitudes.

Investigating the virtual fair experiences of the participants and their future predictions, The Global Association of Exhibition Industry (UFI, 2022a) carried out a survey study on participants from more than 30 countries in the year 2020. The survey included questions addressing the disadvantages of virtual trade fairs and how they affected business people from personal and professional aspects. Given the results achieved, it was determined that face-to-face events are still strong as a core value and there is no evidence suggesting a long-term shift from live events.

UFI (2022b) repeated the same study when the effects of COVID-19 decreased, and normalization started. The survey results completed in February 2022 and July 2022 are as follows:

Table 2. UFI Global Barometer Statistics Related to the Format of Future Trade Shows

Statements	% of the participants who agree with the statement	
	February 2022	July 2022
COVID-19 confirms the value of face-to-face events - the sector bounces back quickly	80	87
Less international "physical" exhibitions, and overall, fewer participants	44	31
A push towards "hybrid" events, more digital elements at events	73	61
Virtual events replacing physical events	11	5

In this 6-month period, when the return to the old order accelerated after the decline in COVID-19 cases, the participants' predictions evolved from virtual to physical fairs. However, the expectations for hybrid events are quite positive. Although the participants think virtual fairs cannot replace physical fairs, they anticipate that the conveniences offered by digitalization can be integrated into physical fairs. Based on these views, virtual and physical fairs can be considered to be promotional tools with complementary elements rather than alternatives to each other.

As stated by Gottlieb and Bianch (2017), the future of virtual fairs will depend on the technological evolution of virtual exhibition systems and how they are integrated into existing

technological and strategic business processes for exhibitors and visitors. It can be expected that advancements such as the spread of 5G technology and the use of Metaverse for exhibition facilities would expand the interaction area of virtual exhibitions.

2.4. Theoretical Background on Acceptance and Adoption of New Technologies in the Context of Virtual Fairs

In the literature, there are different theoretical approaches to explaining digital activities. However, within the context of this study, which includes the approach to virtual fairs, the following three theories are discussed: the Theory of Planned Behavior, the Diffusion of Innovations Theory, and the Technology Acceptance Model.

Azjen's (1991) Theory of Planned Behavior (TPB) suggests that attitudes are one of the determinants of future actions. How did those business people evaluate their experiences and what attitudes do they have towards those fairs? The answers will be useful in predicting the future actions of those business people. Did they adopt the virtual fairs, or will they abandon them? Theories aiming to discover the factors influencing this decision will help to find the answers.

In Rogers' (1976) Diffusion of Innovations (DI) Theory, it is emphasized that there are five stages of the innovation-decision process: (1) awareness, (2) developing an attitude, (3) adopting or rejecting, (4) decision to use (5) reinforcing and institutionalizing the innovation-decision. In the case of virtual fairs, it wasn’t an option to reject the digital way of doing business because, in that period, there was no alternative to this method. Due to this obligation, many businesses participated in virtual fairs, and most of them had their first experiences in those fairs. However, it is not clear if these companies would participate in those events when the pandemic is over. So, in the context of the innovation-decision process, the first stages are covered speedily. After their experiences, the businesses will decide to reinforce or abandon when the pandemic is over. Furthermore, it was revealed that participants' engagement regarding hybrid fairs and perceived compatibility positively affected their loyalty to these events (Silva et al., 2023). Attitudes, in this regard, are the antecedents of engagement.

The Technology Acceptance Model (TAM) is considered to be the most influential and commonly employed theory for describing an individual's acceptance of information systems (Lee-Kelley et al., 2004). In this theory, it is emphasized that the acceptance of information systems depends on "perceived usefulness and perceived ease-of-use" (Davis, 1989). It defines perceived usefulness as "the degree to which a person believes that using a particular system would enhance his or her job performance." Here, usefulness is defined as "capable of being used advantageously." When developing this model, Davis (1989) criticized Innovation Adoption Model, which was developed by Tornatzky and Klein (1982). Their model suggests that the innovations' compatibility, relative advantage, and complexity have the most consistent and significant relationships to innovation adoption. Both models specified the advantages of the new technology as a determinant of acceptance. However, Innovation Adoption Model defines these advantages relatively. Perception and attitude towards the new

technology are defined in the users' minds by comparing the advantages of the new technology with the old one.

Although these models are widely employed, variables of TAM consistently explain 40 percent of the variance in individuals' intention to use (acceptance) and subsequent implementation (adoption) of a technology (Autry et al., 2010). TAM-based empirical studies did not yield consistent or clear results; hence, significant factors needed to be identified and included in the models (Legris et al., 2003). Some of these factors are experiences related to the technology (Davis & Venkatesh, 2004), environmental and organizational factors (Gangwar et al., 2014) such as company size, innovativeness of the firm, level of technology readiness, security, and trust (Wu, 2011). The experiences related to a specific technology (such as using prototypes) are significant predictors of usage intentions and behavior (Davis & Venkatesh, 2004).

Virtual trade fairs, which are products of information technologies, were new for most businesses until the COVID-19 pandemic. So that the adoption or the acceptance of virtual trade fairs can be evaluated by using the models of Technology Acceptance and Innovation Adoption models, together with the new extensions proposed by researchers.

Although TAM applies to many information technologies and software (Marangunić & Granić, 2015), no research could be found on virtual fairs because businesses participated with or without developing an attitude toward virtual fairs during the COVID-19 period. Nevertheless, they experienced those fairs, and those experiences will have predictive power in determining their future behaviors. These attitudes and some of the organizational factors might provide insights into the theory-building efforts of future research.

2.5. Hypotheses

Lee-Kelley et al. (2004) investigated to what extent virtual fairs support the marketing mix elements in their study. They conclude that, while there was a general agreement that there is a beneficial environment for "product," "promotion," and "price,", the consensus on "location/distribution" was not that strong. This finding regarding the "place" might be related to their participation in virtual fairs solely to convey information and provide communication. Industries, for which physical contact or product display is vital, might be affected more than others due to this disadvantage of virtual fairs. In other words, while some sectors might be more active in virtual fairs, some cannot be because of a higher degree of need for a detailed examination of the product or establishing trust. However, as an interesting finding in the same study, it was revealed that jewelry companies were more willing to participate in virtual fairs than oil companies. However, jewelry is a product group that needs to be supported by more concrete elements than petroleum. This finding is consistent with King and Gribbins's (2002) research. They claimed that the individual-based technology acceptance model might not fit company-wide technology adoption. Their findings suggest that industry types, product types, and company sizes might

affect the technology adoption of the companies. In a qualitative research study carried out by Duman and Ecevit (2021), it was reported that sectors that are suitable for virtual fairs are informatics, games, education, books, stationery, tourism, real estate, and machinery. However, the sample of their study was fair organizers rather than participants. Based on the results of these studies, it can be seen that the attitude towards virtual fairs might vary depending on the industry, and the H_1 hypothesis is as follows:

"H_1: There is a relationship between the business people's judgment about the suitability of their industry and their attitude towards virtual fairs."

In a few academic studies examining firm behavior towards innovation and digitalization, firm age was considered as a variable. These studies also reported quite different findings. For instance, the results of the research conducted on exporting businesses located in Balıkesir and Bursa suggested that the evaluations of businesses in terms of marketing innovation did not differ according to the age of the businesses (Biçimveren, 2017). In another study, Aydıner et al. (2019) argued that experienced businesses can avoid investing in new technologies by creating more social networks when compared to younger ones. Therefore, being experienced can be a disadvantage considering the information system practices. However, Zimmerman (2018) determined that the probability of completion of digitalization projects is almost twice as high in older businesses as in younger businesses. They stated that "The likely reason is that older businesses, in particular, need to keep up with the digital environment more often. By contrast, start-ups are probably starting out with a higher level of digitalization already". In line with these studies, hypothesis H_2 is as follows.

"H_2: There is a relationship between business people's attitudes towards virtual fairs and the age of businesses they work in."

Along with the ease of use and relative benefits of the technology, organizational structure also may impact technology acceptance (Gangwar et al., 2014). In a study conducted by Eren (2017), it was determined that large enterprises are in better positions in comparison to small and medium-sized enterprises in terms of accessing the opportunities offered and using these opportunities effectively. As the business scale gets smaller, the number of cooperation and external links decreases. On the other hand, King and Gribbins (2002) claimed that the decision to adopt a technology might become more complex in larger organizations. Similarly, another research carried out in the United Kingdom showed that smaller businesses use e-commerce to a greater extent when compared to their larger counterparts. Smaller businesses believe that they have benefited more significantly from their e-commerce services than larger firms (Daniel & Grimshaw, 2002). As a result, it is not clear if the size of a business is a significant issue (Premkumar, 2003). These ambiguous findings show that more empirical tests should be conducted on this issue. Thus, the next hypothesis is as follows:

"H_3: There is a relationship between business people's attitudes towards virtual fairs and the size of the businesses they work in."

3. METHODOLOGY

The research population consists of enterprises in Türkiye that participated in at least one virtual fair between 2020 and 2021. In order to reach these businesses, 1067 businesses participating in the digital B2B fair organized by the Turkish Arab Cooperation Association were targeted. This fair was selected deliberately because it involved many businesses operating in different industries. To reach a maximum number of observations, all units that volunteered to participate in the research are included in the sample. So that both judgmental and convenience sampling methods are used. 204 of those businesses volunteered to participate in the research. Although the number of the participants of the present study is more than the previous related research, the sectorial range was not homogenous, all the participants were from Türkiye, and the participants were selected from the list of the attendants of one specific fair. In addition, these participants' virtual fair experiences might have been affected by the devices, by which they had connected to the event. These restrictions may have negative effects on the generalization of the results.

Quantitative methods were used in the research. Because of the ongoing COVID-19 pandemic, it was not possible to get in-depth opinions from the participants. Since it is participant-oriented research and there is no opportunity to collect in-depth data, an online questionnaire was used as a data collection tool. No quantitative scale designed for the measurement of the attitudes of participants towards virtual trade fairs could be found in the literature. Due to the lack of a previously developed scale, the qualitative scales and quoations of the limited number of studies in the literature were examined. A scale with Likert Type statements is formed by combining the questions of Lee-Kelley et al. (2004), Ling-yee (2010), Sarmento and Simoes (2019), Duman and Ecevit (2021) and also the reports of The Global Association of Exhibition Industry (UFI) which articulated the Covid-19 experience. A pilot study was conducted with 40 participants and the items in the scale were improved. The final scale consists of three parts: (1) items describing the business, (2) items related to the attitudes toward virtual fairs, and (4) items about future expectations for virtual fairs. The data obtained in the research were analyzed by using the statistical package program after data extraction.

4. ANALYSIS AND RESULTS

4.1. Descriptive Statistics

Before the statistical analysis, the frequency and percentage distributions of the descriptive characteristics are given to see the general profile of the sample in Table 3.

• Most of the businesses are well-established enterprises in terms of the year of establishment.

• Although the businesses are distributed widely in terms of the industry they operate in; food and building/construction are dense.

• The business people from whom data is collected can represent the business.

• It can be seen that small and medium-sized enterprises dominate the sample.

Table 3. Descriptive Statistics of the Participants

		f	%			f	%
Age of Business	< 10	46	22.5	**Industry**	Food industry	53	26
	10-19	62	30.4		Building and Construction Materials	36	17.6
	≥20	96	47.1		Machinery and Parts	26	12.7
Number of Employees	>50	111	54.4		Furniture and Forest Products	17	8.3
	50-100	32	15.7		Textile and Apparel	12	5.9
	>100	61	29.9		Ferrous and Non-Ferrous Metals	10	4.9
Frequency of Participation in International Trade Fairs	1	91	44.6		Agriculture and Livestock	10	4.9
	2	37	18.1		Services	8	3.9
	>2	76	37.3		Cement, Glass, Ceramics, and Soil Products	5	2.5
Frequency of Participation in Virtual International Trade Fairs During COVID-19	1	133	65.2		Chemicals	5	2.5
	2	36	17.6		Electrical and Electronics	4	2
	>2	35	17.2		Home textiles	3	1.5
Title of Participant	Company Partner	76	37.3		Leather, Shoes, Bags	1	0.5
	General Manager	23	11.3		Coal	1	0.5
	Marketing/Sales Manager	34	16.7		Automotive and Parts	1	0.5
	International Trade Manager	57	27.9		Other	12	5.9
	Other	14	6.8				

4.2. Dimensions of Scale

Factor analysis operates on the notion that measurable and observable variables can be reduced to fewer latent variables that share a common variance and are unobservable, which is known as reducing dimensionality (Bartholomew et al., 2011). Principal Components analysis is used to extract maximum variance from the data set with each component thus reducing a large number of variables into smaller number of components (Tabachnick & Fidell, 2007). Principal Components Factor Analysis was conducted in order to determine the dimensions of the scale used in this research. The results obtained by performing orthogonal (Varimax) rotation are transferred by using tables. The Kaiser-Meyer-Olkin (KMO) criterion was used in assessing the consistency of the data. Cronbach Alpha analysis was conducted in order to determine the reliability of the scale.

Subjecting all 21 items were to factor analysis, a five-dimensional solution explaining 68% of the variance was achieved (KMO = 0.869). However, as a result of rotational factor analysis, it was observed that some items had factor loads close to each other in more than one dimension. These items are: “Less time is required to be prepared for the virtual fairs.” and “In virtual fairs, it is possible to face technical problems.”, “It is more difficult to obtain market intelligence in virtual fairs.”

The analysis was repeated by removing these items sequentially. The optimum solution was achieved by using 17 variables and 61.893% total variance was explained (KMO =0.865 and Cronbach Alpha =

0.847). The items under each dimension are examined. The first dimension is the "advantages dimension", the second dimension is the "short-term disadvantages dimension", and the third dimension is the "medium/long-term disadvantages". While the short-term disadvantages dimension mainly includes the constraints encountered before and during the fair, whereas medium/long-term disadvantages include the disadvantages related to issues such as efficiency that may be encountered after the fair. The details of the analysis are given in Table 4.

Table 4. Exploratory Factor Analysis of Attitudes Toward Virtual Trade Fairs Scale

Factor 1 – Advantages	**Factor Load**	**Variance Explained (%)**
1. Virtual fairs are suitable platforms for accessing new or distant markets.	0.889	
2. A wide variety of digital communication channels is an essential advantage of virtual fairs.	0.877	
3. Virtual fairs are convenient environments to gain new customers.	0.85	
4. Virtual fairs are suitable environments for the promotion of existing products.	0.85	36.05
5. Virtual fairs offer opportunities for small businesses that want to reach the global market.	0.843	
6. Virtual trade shows provide a unique environment for promoting new products.	0.831	
7. Exhibitors and visitors can access virtual fairs anytime, anywhere.	0.79	
8. Increasing brand awareness and credibility is easier in virtual fairs.	0.774	
9. With virtual fair technology, it is possible to eliminate visitors with lower potential.	0.668	
Factor 2 – Short-term disadvantages		
10. Virtual fairs are overpriced compared to the service offered by the organizers.		
11. Most exhibitors and visitors include the younger generation due to the digital adaptation problem in virtual fairs.	0.729	14.20
12. The lack of rules and standards is a fundamental problem with virtual fairs.	0.706	
13. It is possible to encounter virtual rudeness in the communication channels of virtual fairs.	0.698	
Factor 3 – Medium/Long-term disadvantages		
14. The return rate after virtual fairs is less than physical fairs.	0.783	
15. It is difficult to measure the effectiveness of virtual fairs.	0.699	11.65
16. There is no security risk in virtual fairs.	0.599	
17. The lack of physical contact is the most crucial disadvantage of the virtual fair.	0.554	

4.3. K-means Clustering Analysis

Clustering or grouping is done on the basis of similarities or distances, and it is one of the best approach of multivariate analysis and a common methodology for statistical data analysis (Oti et al., 2021). K-means is a partitional clustering method. It is commonly used in academic research due to its easiness, simplicity, and efficiency. Because of these advantages, this clustering technique was preferred in this research. K-means Clustering Analysis was conducted by using factor loads obtained from the Exploratory Factor Analysis to divide the sample into clusters in line with their attitudes. At eleven iterations, optimum clusters were found. Convergence was achieved due to no or small changes in cluster centers. The maximum absolute coordinate change for any center was less than 0.001. The minimum distance between initial centers was 6.869. The center point of the first of the two groups formed is 0.43462. The number of business people in the first group is 158, and the number of participants in the second group is 46.

Table 5 shows the averages of the answers given to the questions by the entire sample and the first and second clusters. The scale is a 5-point Likert scale; It should be noted that it is coded as "1=Strongly Disagree....5=Strongly Agree".

Table 5. The general and cluster-based averages

	1. Cluster (n=158)	2. Cluster (n=46)	Sample (n=204)
Virtual fairs are suitable platforms for accessing new or distant markets.	3.62	1.93	3.24
Virtual fairs are suitable environments for the promotion of existing products.	3.61	1.98	3.24
Virtual trade shows provide a unique environment for promoting new products.	3.52	1.89	3.15
Virtual fairs are suitable platforms for accessing new or distant markets.	3.92	1.98	3.48
A wide variety of digital communication channels is an essential advantage of virtual fairs.	3.81	2.07	3.42
Increasing brand awareness and credibility is easier in virtual fairs.	3.39	1.87	3.05
Virtual fairs offer opportunities for small businesses that want to reach the global market.	3.92	2.17	3.53
Exhibitors and visitors can access virtual fairs anytime, anywhere.	**4.08**	**2.5**	**3.72**
With virtual fair technology, it is possible to eliminate visitors with lower potential.	3.53	2.24	3.24
The return rate after virtual fairs is less than physical fairs.	3.45	3.52	3.47
It is difficult to measure the effectiveness of virtual fairs.	3.17	3.15	3.17
There is no security risk in virtual fairs.	3.13	2.8	3.06
The lack of physical contact is the most crucial disadvantage of the virtual fair.	**3.78**	**3.7**	**3.76**
It is possible to encounter virtual rudeness in the communication channels of virtual fairs.	3.28	3.07	3.23
The lack of rules and standards is a fundamental problem with virtual fairs.	3.55	3.54	3.55
Virtual fairs are overpriced compared to the service offered by the organizers.	3.15	3.48	3.22
Most exhibitors and visitors include the younger generation due to the digital adaptation problem in virtual fairs.	3.51	3.37	3.48
Virtual fairs are not suitable for our industry.	**2.58**	**3.52**	**2.79**
Interest in virtual fairs will decrease after the COVID-19 Pandemic.	3.06	3.59	3.18
In the future, hybrid fairs (co-organizing physical and virtual fairs) will become widespread.	3.63	3.3	3.56
With the development of technology, physical fairs will lose their importance in the future.	**2.89**	**2.48**	**2.80**

First of all, when the averages of the answers given by the entire sample to the survey questions are evaluated, it can be seen that the issues of ease of access to virtual fairs and lack of physical contact stand out. Apart from this, the participants question sectoral suitability. It is widely believed that virtual fairs would be as crucial in the future as they are today.

Examining the cluster averages, it was determined that the attitudes of the first cluster are positive, while the second is not. The first cluster constitutes 77.4 % of the sample. So, it can be understood that the attitude towards virtual fairs is optimistic despite the negative aspects.

The items of which negative and positive attitudes groups differ the most are in the advantages dimension. Specifically,

- "Virtual fairs are suitable environments for the promotion of existing products." The difference between the means of the answers given to the item is 1.94.
- "Virtual fairs offer opportunities, especially for small businesses that want to reach the global market." The difference between the means of the answers given to the item is 1.75.

• "The existence of a wide variety of digital communication channels is an important advantage of virtual fairs." The difference is 1.74.

The differences in the averages of the items in the dimensions of disadvantages are low. For example, the two clusters have almost the same average in the item, questioning the lack of physical contact. Therefore, the sample has an attitude close to consensus on the disadvantages of virtual fairs; however, it can be argued that there are divergences regarding the benefits provided.

4.4. Chi-Square Test Results

The distribution of the answers given regarding the level of agreement with the statement "Virtual fairs are not suitable for our industry." on the basis of clusters is given in Table 6. As seen in Table 6, participants who think that the industry is suitable for virtual fairs usually adopt a positive attitude. Chi-square analysis results also show that the H_1 hypothesis is accepted.

Table 6. Distribution of Responses to Industry Suitability by Clusters

	The group with a positive attitude	The group with a negative attitude	Total
I strongly disagree	20	4	24
I disagree	64	9	73
I neither agree nor disagree	40	6	46
I agree	30	13	43
I strongly agree	4	14	18
Total	158	46	204

Pearson Chi-Square: 23.494, Asymp. Sig. (2- sided) < 0.001

Linear-by-linear association: 18.380, Likelihood Ratio: 21,937

Table 7 examines in which industries the participants are predominantly positive and in which ones they are negative. Although it is impossible to generalize the results on an industrial basis since the sample shows a very fragmented view of industries, the data in this table is valuable in providing insight.

Table 7. Positive and Negative Clusters According to Industries*

Industries	Positive Attitude		Negative Attitude	
	Frequency	%	Frequency	%
Ferrous and Non-Ferrous Metals	8	80	2	20
Food industry	40	75	13	25
Service	8	100	0	0
Machinery and Parts	18	69	8	31
Furniture and Forest Products	14	82	3	18
Agriculture and Livestock	6	60	4	40
Textile and Apparel	12	100	0	0
Building and Construction Materials	28	78	8	22

* Since the percentage analysis of the sectors with few total participants in the table above will not yield meaningful results, these sectors are not included.

Examining Table 7, it can be seen that all the participants from the service and textile sectors have adopted a positive attitude and that the group that has the most negative attitude operates in the

agriculture and livestock industry, followed by the machinery. Although the number of businesses in the sample is insufficient to generalize, it is not wrong to suggest that promoting services in the virtual fair can be done more effectively than the goods.

The results of the Chi-square test on the distribution of clusters with positive and negative attitudes by the age of the businesses and the test regarding the relationship between these two variables are presented in Table 8. As a result of the analysis, there is no relationship between the age of businesses and the attitude developed toward virtual fairs. H_2 is rejected.

Table 8. Positive and Negative Clusters According to the Age of the Businesses

Attitudes Toward Virtual Fairs	Age of Business		
	<10	10-19	≥20
The group having a positive attitude	88	23	47
The group having a negative attitude	23	9	14
Total	111	32	61

Pearson Chi-Square: 3.692, Asymp. Sig. (2- sided) = 0.159
Linear-by-linear association: 1.888, Likelihood Ratio: 3.422

Table 9 presents the distribution of clusters with positive and negative attitudes by the size of the business and the Chi-square test results for testing the relationship between these two variables. As a result of the analysis, the H_3 hypothesis was rejected.

Table 9. Positive and Negative Clusters According to Sizes of the Businesses

Attitudes Toward Virtual Fairs	Number of Employees		
	<50	50-100	>100
The group having a positive attitude	88	23	47
The group having a negative attitude	23	9	14
Total	111	32	61

Pearson Chi-Square: 0.788, Asymp. Sig. (2- sided) = 0.674
Linear-by-linear association: 0.185, Likelihood Ratio: 0.763

5. CONCLUSION AND RECOMMENDATIONS

The spread of virtual trade fairs, a product of digitalization within the scope of the new economy, is gradually increasing both as the obligations arising from the COVID-19 pandemic and the necessity of the current age. Results of the study show that attitudes toward the virtual fairs seem to be positive and the organizers plan to increase the number of these activities in the future (Choi et al., 2023). However, the theoretical and empirical research on virtual fairs is somewhat premature and does not seem focused. Therefore, this research contributes to the formation of this literature by proposing an antecedent of virtual trade fair loyalty, which is the participants' attitudes and the dimensions which form this construct. The results obtained in the study are discussed below in terms of theoretical perspective and managerial implications, and suggestions are made for future research.

Considering the results of the study on a theoretical basis, the following evaluations can be made. The easiness and usefulness of the technology are essential factors in TAM and DI models.

However, in the present study, only the advantages and disadvantages are seen to be the factors playing a role in the development of the attitudes. The items related to the technology's easiness are excluded from the analysis. Variables of TAM and their significance vary in each context (Gangwar et al., 2014), so these results are parallel to the literature.

The physical fairs are more challenging to participate in. Because the physical transfer of the employees, products, and booths is required. In addition, accommodation, transportation, and fair participation fees bring high financial costs. Virtual trade fairs are easier to participate in when compared to physical ones. The participants are likely to determine their attitudes by only focusing on the advantages and disadvantages, rather than the ease of use. Secondly, in TAM, the advantages are handled as long- and short-term advantages. Likewise, the findings in this research support this model.

The advantages emphasized regarding the wider market scope and reach are in parallel with the study carried out by Sarmento and Simoes (2019). However, in their study, the cost was emphasized as an advantage. On the other hand, in the present research, the cost is considered as a disadvantage because of the overpricing. Governments may include virtual trade fairs in their incentive programs or regulate prices to eliminate this disadvantage. Among the disadvantages, "lack of physical contact" draws attention. This finding is also in parallel with the study carried out by Bathelt, H. and Schuldt, N. (2010), which underlines the disadvantageous position of virtual fairs regarding face-to-face interaction and observation.

The organizational factors that may impact technology acceptance seem to be irrelevant, except for the industry kind, in the case of virtual fairs. Previous studies which related the age and size of the business to the technology acceptance also have yet to reach a consensus about their relevance (Premkumar, 2003; Zimmerman (2018); Aydıner et al. (2019); King and Gribbins (2002); Daniel and Grimshaw, 2002). So, the theory extensions should be done very carefully.

The results achieved in the present study allow the following suggestions to be made in terms of managerial practice: For fair organizers, it is recommended to focus on improving the conditions regarding the disadvantages of virtual fairs. Virtual reality technologies such as Metaverse may be integrated into virtual fairs in the future. Most participants seem to prefer hybrid alternatives until technological improvements are made to virtual trade fairs and participants accept these technologies. Such technologies will improve virtual fair experiences and remove some disadvantages. These recommendations are also consistent with the findings of Gottlieb and Bianch (2017) which suggest that the future of virtual trade fairs depends on the development of virtual trade fair technologies. Likewise, businesses may focus on integrating the data obtained from virtual fairs into their customer database and use database marketing. Thus, the effectiveness of virtual fairs might be increased. Such developments will improve the position of virtual trade fairs in the future. In addition, companies participating in fairs are recommended to decide on participation in virtual fairs regardless of their size, and age. Also, it can

be thought that virtual fairs are not suitable for every sector, as reported in the study carried out by Duman and Ecevit (2021).

The scarcity of academic studies on virtual fairs was frequently mentioned above. The following suggestions can be made for future studies on virtual fairs: The fair, which constitutes the sample of this study, includes many sectors and the pandemic period. Conducting studies on different samples and in normal economic periods to assess the generalizability and reproducibility of the results might bring new approaches to virtual fairs. In addition, future research may focus on an industrial study, which can add insight into which sectors are easier to adapt to virtual trade fairs and which are more difficult. Similarly, a future study may focus on the product characteristics rather than the industry of the businesses. Thus, it may be possible to draw conclusions by further examining the impact of the industry on virtual trade fairs by making multiple classifications, such as businesses operating in industrial or consumer markets, those selling durable or nondurable products, or those selling capital goods, raw materials, or intermediate products. Moreover, businesses underline the indispensability of physical without sacrificing the advantages of virtual. For this reason, expectations for hybrid fairs are higher than pure virtual ones. In this context, it is recommended that similar studies should be carried out focusing on hybrid fairs.

For the study, ethics committee permission document dated March 3, 2022 and numbered 113328 was obtained from the Sakarya University Ethics Committee.

The study has been crafted in adherence to the principles of research and publication ethics.

The authors declare that there exists no financial conflict of interest involving any institution, organization, or individual(s) associated with the article. Furthermore, there are no conflicts of interest among the authors themselves.

The authors contributed equally to the entire process of the research.

REFERENCES

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-T

Autry, C.W., Grawe, S.J., Daugherty, P.J. and Richey, R.G. (2010). The effects of technological turbulence and breadth on supply chain technology acceptance and adoption. *Journal of Operations Management, 28*(6), 522-536. https://doi.org/10.1016/j.jom.2010.03.001

Aydıner, A. S., Tatoglu, E., Bayraktar, E., and Zaim, S. (2019). Information system capabilities and firm performance: opening the black box through decision-making performance and business-process performance. *International Journal of Information Management*, *47*, 168-182. https://doi.org/10.1016/j.ijinfomgt.2018.12.015

Bartholomew, D., Knotts, M., and Moustaki, I. (2011). *Latent Variable Models and Factor Analysis: A Unified Approach*. (3rd ed.). John Wiley & Sons.

Bathelt, H., and Schuldt, N. (2010). International trade fairs and global buzz, Part I: Ecology of global buzz. *European Planning Studies*, *18*(12), 1957-1974. https://doi.org/10.1080/09654313.2010.515815

Bathelt, H., and Spigel, B. (2012). The spatial economy of North American trade fairs. *The Canadian Geographer, 56*(1), 18–38. https://doi.org/10.1111/j.1541-0064.2011.00396.x

Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., and Venkatraman, N. (2013). Digital business strategy: Toward a next generation of insights. *MIS Quarterly*, *37*(2), 471-482. http://www.jstor.org/stable/43825919

Biçimveren, L. (2017). *Pazar odaklılık, yenilik odaklılık, pazarlama inovasyonu ve uluslararası pazar performansı: Balıkesir ve Bursa illerinde dış ticaret yapan firmalara yönelik bir uygulama*. [Unpublished master's thesis]. Balıkesir University.

Bonoma, T. V. (1983). Get more out of your trade shows. *Harvard Business Review*, *61*(1), 75-83.

Cardon, P. W., Ma, H., and Fleischmann, C. (2021). Recorded business meetings and AI algorithmic Tools: negotiating privacy concerns, psychological safety, and control. *International Journal of Business Communication,* 1-28. https://doi.org/10.1177/23294884211037009

Choi, Y., Fernandes, A., Grover, A., Iacovone L. and Olarreaga, M. (2023). *Trade Promotion Organizations in the Pandemic World*. World Bank Policy Research Working Paper, no 10374. https://documents1.worldbank.org/curated/en/099724003232392542/pdf/IDU01a1528ce02d2404f7c09f4102d0e6fc3d6b2.pdf

Daniel, E. M., and Grimshaw, D. J. (2002). An exploratory comparison of electronic commerce adoption in large and small enterprises. *Journal of Information Technology*, *17*(3), 133-147. https://doi.org/10.1080/02683960220000184O

Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), 319-340. https://doi.org/10.2307/249008

Davis, F. D., and Venkatesh, V. (2004). Toward preprototype user acceptance testing of new information systems: implications for software project management. *IEEE Transactions on Engineering Management, 51*(1), 31-46. https://doi.org/10.1109/TEM.2003.822468

Duman, O., and Ecevit, M.Z. (2021*).* Sosyal bilimlerde güncel araştırmalar. S. İpek and C. Kılıç (Edt.), *Pazarlama alanındaki dijitalleşme çalışmaları ve Türkiye'deki fuar düzenleyicilerinin sanal fuarcılığa yatkınlıkları üzerine bir araştırma* (p. 94-103). Ekin Basım Yayın Dağıtım.

Eren H. (2017). Firma büyüklüğü bağlamında yenilik, işbirliği ve bilgi kaynaklarından yararlanma. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 19*(1), 11-33. https://doi.org/10.16953/deusbed.79642

Gangwar, H., Date, H., and Raoot, A. D. (2014). Review on IT adoption: Insights from recent technologies. *Journal Of Enterprise Information Management*, *24*(4), 488-502. https://doi.org/10.1108/JEIM-08-2012-0047

Gani, M.O., Takahashi, Y., Faroque, A.R., Mortazavi, S. and Alam, M.Z. (2021). Virtual trade show: Past assessment, present status, and future prospects. *Journal For International Business and Entrepreneurship Development*, *13*(3/4), 286-310. https://doi.org/10.1504/JIBED.2021.120855

Gartner. (2018). *Digitalization*. Gartner. https://www.gartner.com/en/information-technology/glossary/digitalization.asp

Geigenmuller, A. (2010). The role of virtual trade fairs in relationship value creation. *Journal of Business & Industrial Marketing*, 25(4), 284-292. https://doi.org/10.1108/08858621011038243

González, J. L., and Ferencz, J. (2018). *Digital Trade and Market Openness*. OECD Trade Policy Papers, no 217. https://doi.org/10.1787/1bd89c9a-en

Gottlieb, U., and Bianch, C. (2017). Virtual trade shows: exhibitors' perspectives on virtual marketing capability requirements. *Electronic Commerce Research and Applications, 21*, 17-26. https://doi.org/10.1016/j.elerap.2016.12.004

Kourkouridis, D., Frangopoulos, I., and Salepaki, A. (2024). Post-pandemic trade fair dynamics: A longitudinal study of exhibitors' views on digital and hybrid trade fairs. *Geo Journal of Tourism and Geosites*, *55*(3), 1174-1185. https://doi.org/10.30892/gtg.55318-1290

King, R. C., and Gribbins, M. L. (2002), *Internet technology adoption as an organizational event: An exploratory study across industries* [Conference Paper]. Proceedings of the 35th Annual Hawaii International Conference on System Sciences, Big Island USA, 2683-2692. https://doi.org/10.1109/HICSS.2002.994205

Lacka, E., Chan, H., and Wang, X. (2020), Technological advancements and B2B international trade: A bibliometric analysis and review of industrial marketing research. *Industrial Marketing Management, 88*, 1-11. https://doi.org/10.1016/j.indmarman.2020.04.007

Lee-Kelley, L., Gilbert, D., and Al-Shehabi, N. F. (2004). Virtual exhibitions: An exploratory study of Middle East exhibitors' dispositions. *International Marketing Review*, *21*(6), 633-644. https://doi.org/10.1108/02651330410568051

Legris, P., Ingham, J., and Collerette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. *Information & Management*, *40*(3), 191-204. https://doi.org/10.1016/S0378-7206(01)00143-4

Li, W., Ye, Z. (2024). Cross-cultural design. HCII 2024. Lecture notes in computer science. Rau, PL.P. (Edt.), *Comparative Case Studies: Cross-cultural Communication Strategies of the Digital Platforms of Global Trade Fairs*. Springer, Cham. https://doi.org/10.1007/978-3-031-60901-5_7

Ling-yee, L. (2010). Antecedents and effect of internet implementation for trade shows. *Journal of Business & Industrial Marketing*, 25(4), 272-283. https://doi.org/10.1108/08858621011038234

Marangunić, N., and Granić, A. (2015). Technology acceptance model: A literature review from 1986 to 2013. *Universal Access in The Information Society*, *14*, 81-95. https://doi.org/10.1007/s10209-014-0348-1

Munzi, S., and Giovanetti, M. (2021). Wanted: virtual or live! How lichens are becoming part of mass internet culture. *Symbiosis*, *84*(3), 285–293. https://doi.org/10.1007/s13199-021-00780-6

Oti, E. U., Olusola, M. O., Eze, F. C., and Enogwe, S. U. (2021). Comprehensive review of k-means clustering algorithms. *International Journal of Advances in Scientific Research and Engineering*. *7*(8), 64-68. http://doi.org/10.31695/IJASRE.2021.34050

Palumbo, F. A. (2012). Trade shows and trade fairs meet the virtual world. *London Journal of Tourism, Sport and Creative Industries*, *6*(7). 4-14.

Pearlman, M.D., and Gates, A.N. (2010). Hosting business meetings and special events in virtual worlds: A fad or the future? *Journal of Convention & Event Tourism, 11*, 247-265. https://doi.org/10.1080/15470148.2010.530535

Pecherskaya, M. D., Mamatkulov, S. I., and Butanov, H. T. (2019). Virtual fairs as a modern tool of marketing. *Marketing*, *9*(3), 2.

Porpiglia, F., Checcucci, E., Autorino, R., Amparore, D., Cooperberg, M. R., Ficarra, V., and Novara, G. (2020). Traditional and virtual congress meetings during the covid-19 pandemic and the post-covid-19 era: Is it time to change the paradigm? *European Association of Urology*, *78*(3), 301–303. https://doi.org/10.1016/j.eururo.2020.04.018

Premkumar, G. (2003). A Meta-analysis of research on information technology implementation in small business. *Journal of Organizational Computing and Electronic Commerce*, *13*(2), 91-121. https://doi.org/10.1207/S15327744JOCE1302_2

Rogers, E., and Agarwala-Rogers, R. (1976*). Communication in organizations*. The Free Press.

Sarmento, M., and Simões, C. (2018). The evolving role of trade fairs in business: A systematic literature review and a research agenda. *Industrial Marketing Management*, 73, 154-170. https://doi.org/10.1016/j.indmarman.2018.02.006

Sarmento, M., and Simões, C. (2019). Trade fairs as engagement platforms: The interplay between physical and virtual touch points. *European Journal of Marketing*, *53*(9), 1782-1807. https://doi.org/10.1108/EJM-10-2017-0791

Schneider, S., and Kokshagina, O. (2021). Digital transformation: What we have learned (thus far) and what is next. *Creativity and Innovation Management*, *30*(2), 384-411. https://doi.org/10.1111/caim.12414

Shereni, N. C., Ncube, F. N., and Mazhande, P. (2021). Exhibitors' preference at trade fairs: The case of zimbabwe international trade fair. *Journal of Convention & Event Tourism*, 1-22. https://doi.org/10.1080/15470148.2021.1893241

Silva, S. C., and Elo, M. (2019). New digital layers of business relationships – experiences from business-to-business. *International Business in the Information and Digital Age*, *13*(1), 217-241. https://doi.org/10.1108/S1745-886220180000013010

Silva, P. M., Paço, A. F., and Moutinho, V. F. (2023). The trend of omnichannel trade fairs. are B2B exhibitors open to this challenge? A study on portuguese exhibitors. *Journal of Business-to-Business Marketing*, *30*(1), 15-31. https://doi.org/10.1080/1051712X.2023.2174825

Tabachnick, B. G., and Fidell, L. S. (2007). *Using Multivariate Statistics* (5th ed.). Allyn & Bacon.

Tafesse, W. and Skallerud, K. (2017). A systematic review of the trade show marketing literature: 1980-2014. *Industrial Marketing Management*, *63*, 18-30. https://doi.org/10.1016/j.indmarman.2016.11.001

Tornatzky, L. G., and Klein, K. J. (1982). Innovation characteristics and innovation adoption-implementation: A meta-analysis of findings. *IEEE Transactions on Engineering Management*, 29(1), 28-45. https://doi.org/10.1109/TEM.1982.6447463

UFI (2022a), *28th UFI Global Exhibition Barometer*. UFI. https://www.ufi.org/wp-content/uploads/2022/02/28th_UFI_Global_Barometer_february_2022.pdf

UFI (2022b), *29th UFI Global Exhibition Barometer*. UFI. https://www.ufi.org/wp-content/uploads/2022/07/29th_UFI_Global_Barometer_july_2022.pdf

Wu, W. W. (2011). Developing an explorative model for SAAS adoption. *Expert Systems with Applications*, *38*(12), 15057-15064. https://doi.org/10.1016/j.eswa.2011.05.039

Vik, Å. S., Nørbech, B. C., and Jeske, D. (2018). Virtual career fairs: Perspectives from norwegian recruiters and exhibitors. *Future Internet*, *10*(2), 19. https://doi.org/10.3390/fi10020019

Vitali, V., Bazzani, C., Gimigliano, A., Cristani, M., Begalli, D., and Menegaz, G. (2022). Trade show visitors and key technological trends: From a literature review to a conceptual framework. *Journal of Business & Industrial Marketing*, *37*(13), 142-166. https://doi.org/10.1108/JBIM-10-2021-0461

Zimmerman, V. (2018). Determinants of Digitalisation and Innovation Behaviour in the SME Sector. KFW Research, (236) https://www.kfw.de/PDF/Download-Center/Konzernthemen/Research/PDF-Dokumente-Fokus-Volkswirtschaft/Fokus-englische-Dateien/Fokus-2018-EN/Focus-No.-236-December-2018-Determinants-of-digitalisation-and-innovation.pdf