

eSport in the digital era: exploring the moderating role of perceived usefulness on financial behavioral aspects on reward crowdfunding

Abstract

eSport is revolutionizing the video games and sport industry in the era of Digital Transformation. Applying the Theory of Planned Behaviour (TPB) and the Technology Acceptance Model (TAM), this study aims to investigate the links between the eSport individual motivation and financial behaviour in reward-crowdfunding. A survey has been conducted among 327 people to investigate their psychological and behavioural aspects related to eSport and their funding decisions. The results demonstrate a preponderant role of personal, non-financial, motivations in participating in reward-crowdfunding campaigns. The paper contributes to validating and applying TPB and TAM in the context of eSport and reward-crowdfunding.

Keywords

eSport, Crowdfunding, Theory of Planned Behaviour, Technology Acceptance Model Digital Transformation, Financial Behaviour

1. Introduction

eSport is becoming one of the most popular online entertainments in recent years. But what precisely is an eSport? A definition that fits the term perfectly was given by Segal (2014), and reported by authoritative research on the subject such as Jenny et al., (2017), *“A catchall term for games that resemble conventional sports insofar as they have superstars, playoffs, fans, uniforms, comebacks, and upsets.... But all the action in [eSports] occurs online, and the contestants hardly move”*. For instance, The Dota2 eSports tournament, called "The International", was, in 2021, the event with the highest prize pool in the history of eSports: 40 million USD. According to Newzoo, a leading company in the analysis of eSports data, there are 500 million "eSport enthusiasts" in the world, more than double compared to 2017. An increase that opens up more and more new business opportunities. There is no doubt that the era of competitive video games has begun.

However, not all video games are eSports. Funk et al. (2018) identifies the characteristics that videogames must have to be considered eSports: a well-defined structure of rules, an organization and being competitive, i.e., at the end of the game to have a winner and a loser.

It is easier to define eSports than to understand the dynamics and motives that push individuals to be so attracted to them. eSports can be seen as a consequence of the changes that digital transformation is having on humanity (Bertello et al., 2021; Bresciani et al., 2018; Scuotto et al., 2017; Scuotto et al., 2016). The digitalization of human life has seen an increase, and in part shifted (through the use of online platforms such as YouTube and Twitch to name a few) the attention of millions of people from real to digital sports.

The video games industry is part of the so-called "creative industries" (e.g., architecture, art, TV, publishing), characterized by a high rate of innovation linked to the digital age (Li, 2020). For instance, the art world is experiencing a digital revolution given by non-fungible tokens (NFT) and the associated blockchain technology.

Nevertheless, the main goal of any business is to be financially sustainable (Lazonick and Tulum, 2011). From this point of view, the company needs to find new opportunities and ways either to generate new revenues or to decrease its costs. The companies that deal with eSports, in addition to relying on partners and sponsors, need a certain level of revenue to ensure that the competitive world of video games can create value for the companies and the people involved. This revenue may be supported through reward crowdfunding campaigns that flow into prize pools for professional players. This allows companies operating in this sector to be assessed for their stakeholder credibility (Laplume et al., 2008).

However, to ensure that individuals (i.e., stakeholders) remain loyal and continue to support financially through crowdfunding campaigns, it is necessary that the motivations that drive them to be passionate about eSports do not fail. As pointed out by Li (2020), in creative industries, one of the methods to make people passionate and loyal may be the use of digital technologies. The use of digital technologies allows users to personalize their experience and can increase the sense of exclusivity of a given activity.

But what is most evident from a scientific point of view, regarding eSport in digital era, is well described by Cunningham et al. (2018): "most studies are atheoretical in nature". Hence, the needs to give solid theoretical foundations, in the development of studies that try to understand eSport as a transition phenomenon in the digital era, is the theoretical gaps that this study seeks to fill.

In particular, there are two aspects that are most overlooked in the current literature. The first is how eSports can be financially supported by "eSport enthusiasts", the second concerns their behavioural aspects.

In this study, we suggest reward-crowdfunding as the main financial source to support eSports.

Generally, crowdfunding can be defined as a form of project financing based on the collection of funds from multiple backers who participate with a small share (Belleflamme et al., 2014). While in equity crowdfunding the main objective of investors is to obtain a return on invested capital, in reward crowdfunding people are guided by different choices (Shneor and Munim, 2019), such as: helping others and personal gratification. Hence, based on the Theory of Planned Behavior (TPB) there are psychological reasons that can influence an individual to financially support a reward-crowdfunding campaign (Shneor and Munim, 2019).

Therefore, this study attempts to understand the relationship between the motivations that make people "eSport enthusiasts" and their behaviour in supporting eSports through reward-crowdfunding campaigns. Furthermore, to understand what can influence this relationship, based on the Technology Acceptance Model (TAM) (Davis, 1989), the role of individual's perceived usefulness is investigated (Davis et al., 1989; Venkatesh and Davis, 2000).

To achieve the objectives of this study, a survey was carried out on a sample of 327 people. The data obtained were analysed by developing multiple Ordinary Least Square (OLS) regression models. The results obtained confirmed that the psychological motives that lead people to be "eSport enthusiasts" can positively influence the financial behavioural aspects of reward crowdfunding. Furthermore, the results show that the personal perceived usefulness plays a moderator role in the relationship between motivations and financial behaviour.

Based on these original results this study contributes both from a theoretical and managerial point of view. First, we contribute on eSports literature (e.g., Funk et al., 2018; Jenny et al., 2017; Hallmann and Giel, 2018) investigating personal psychological aspects associated with them. In particular, as pointed out by Cunningham et al. (2018) we tried to fill the main gap that plagues the eSports literature: being devoid of solid theoretical foundations. Having positively tested the validity of two widely known theories is a first step to give important theoretical references for eSports.

Second, we contribute to crowdfunding literature exploring the emotional aspects that lead people to decide to participate in crowdfunding campaigns (Battisti et al., 2021; Vrontis et al., 2020). From this point of view, the results obtained, and the resulting implications are applicable to the specific case of reward crowdfunding and not to that of equity. We believe that the differences between the two types of crowdfunding, especially when analysing individual motivations, are completely divergent and must be clearly separated and studied individually.

Third, this research contributes to validating and applying TPB in the context of eSports and reward crowdfunding (Ajzen, 1991; Shneor and Munim, 2019). The reasons that push

individuals to be passionate about eSports seem to be the antecedents that push individuals to participate in crowdfunding campaigns connected to them.

Fourth, we contribute to the literature on digital transformation applying the theoretical constructs suggested by the TAM, investigating the role of perceived usefulness in the relationship of behavioral aspects of individuals in eSports and crowdfunding.

Finally, we present several managerial implications related to the creation of a financial system to support eSports based on crowdfunding.

The rest of the paper is organized as follows. In the first part we discuss the reference literature and develop hypotheses. In the second part we present the study sample and the methodology adopted. In the third part the results of the study are presented. The paper concludes with the presentation of the theoretical and managerial contributions and indicating the future lines of research based on the limits of this study.

2. Literature review and Hps development

2.1 eSport: definition, reasons, and psychological aspects

It is fair to ask whether eSports can be defined as real sports (Cunningham et al., 2018). The applicability of certain theoretical constructs, more closely linked “classic” sports, is also to be found in the characteristics of eSports. For instance, are sports business management principles also applicable to eSports? Precisely, “classic” sports have 5 distinctive features (Morgan, 2007): (i) physical activity, (ii) requiring skills, (iii) competitive, (iv) some level of stability and (v) organizations that regulate activities.

Scholars agree that eSports are characterized by (e.g., Jenny et al., 2017; Hallmann and Giel, 2018) a necessary level of skills to compete, therefore they are competitive by nature. They are also characterized by stability, in fact the teams have sponsors, coaches, facilities and managers. Finally, there are institutions and organizations¹ that create rules and protect organization employees and players. However, a broader debate involves whether and how eSports are characterized by physical activity. The results provided by Funk et al. (2018) show that eSports have a motor and

¹ For instance, Eurogamer, at sports academy in London, in 1999 launched the Online Gamers Association. However, each state has its own rules. In fact, in some of them being considered sports allows access to funds to finance activities. For example, in Canada eSports are not considered real sports while in New Zealand there are organizations (e.g., New Zealand eSports Federation (NZESF)) that promote events and protect the interests of participants. In our research we focus on the characteristics of individuals, however, as will also be reported in future lines of research in the next pages, an institutional study approach could open new interesting lines of research.

psychological activity similar to sports, this may confirm the thesis that eSports could be considered in all respects as sports. There is no doubt that eSports are characterized by the static nature of playing competitively videogames, but it is also true that there are sports considered as such while remaining static in their nature (Cunningham *et al.*, 2018). An example is archery, characterized by a prevalent psychological component compared to the physical one. However, it is considered a sport like soccer, basketball, and volleyball. There are also sports that have an extreme physical and psychological component while remaining "seated", i.e., Formula 1.

Hence, the debate on whether activities related to the world of eSports are healthy is inevitable (Wattanapisit *et al.*, 2020). Staying in front of a screen for more than 10 hours, which translates into a sedentary lifestyle, may increase the risk of both physical and psychological illness (Ferguson, 2013; Leis and Lautenbach, 2020). But can they be a discriminating factor for not considering them as sports? These problems are capable of afflicting even the most traditional sports at high level of competition² (Hughes and Leavey, 2012). This makes the debate open, but one that must be addressed by authoritative colleagues in their field.

However, what can be questioned are the reasons and motivations that drive individuals to follow and compete in eSports. One of the reasons could be the search for greater satisfaction with the life you lead. Some preliminary studies have shown that participation in eSports, considering the social outcomes that they can generate, may have positive effects on social relationships (Powdthavee, 2008). They may translate into better psychological health and better life satisfaction (Orlowski and Wicker, 2015).

Another aspect that may be addressed is the possible effect of loneliness, a reason that could distance people from videogames and therefore from the world of eSports. Drawing from sport literature, it was highlighted that team sports allows people to identify themselves with a group increasing the individual social well-being (Pels and Kleinert, 2016), thereby reducing certain forms of loneliness. It may be possible to suggest that the same reasons that push people to participate in normal sports can push them to be eSport enthusiasts. For example, in the case of strategic eSports, participants can be expected to increase their social interactions by sharing and discussing the strategies implemented in that specific video game, exactly as it can happen in football.

² The practice of sporting activities, which is the basis of a healthy life, should not be confused with practicing sport at a competitive level. The studies reported refer exclusively to a competitive and professional level of sports.

Moreover, a consumer behavioral approach may help to better explain individuals' motivation for playing eSports (Pizzo et al., 2018). In sports literature, motivation is one of the most studied and debated topics to justify sport consumption (e.g., Funk et al., 2012; Wann, 1995). Several theoretical constructs have been developed around the topic of motivation in specific contexts of analysis, including psychological needs (Goldstein, 1989), psychological involvement (Funk and James, 2001) and Maslow's hierarchy of needs (Maslow, 1943). Studies on eSports underline that motivation seems to be particularly driven by the desire to compete, the challenges that players have to face and the development of unique set of skills (Weiss and Schiele, 2013). In particular, Pizzo et al. (2018) highlighted that such motivations in eSports are similar to those of traditional sports, allowing the application of similar theoretical constructs.

2.3 eSports Motivation and Crowdfunding through Planned Behaviour Theory

This study is mainly based on the psychological aspects of individuals. From this point of view, it has primary roots on Theory of Planned Behavior (TPB) (Ajzen, 1991) applied to motives that lead individuals to join crowdfunding campaigns related to eSports.

First of all, it is essential to define which type of crowdfunding our research is considering. Although largely treated in the literature, equity crowdfunding is not taken into consideration here (e.g., Battisti et al., 2021; Vrontis et al., 2020) but we consider the so-called reward crowdfunding (e.g., Troise et al., 2022). The reasons are essentially the following. In equity crowdfunding, the person is an investor who participates in the risk capital of a company (Troise et al., 2020). This aspect causes people to be driven by a profit logic when they join such campaigns. Instead, in reward crowdfunding, people do not invest their money with the aim of obtaining a financial return, but because they are driven by other motivations and objectives (Shneor and Munim, 2019). Three are the most common reasons that can be identified: community belonging, support causes, and above all helping others (Ryu and Kim, 2016).

These are logic and behavioral aspects closer to charity than to pure financial investment. Natural consequence of these contrasting aspects was the need for a comparative study between the two models. Therefore, Cholakova and Clarysse (2015) have highlighted that the financial return is the main reason that causes an individual to join a crowdfunding campaign. The other motivations, characterized by helping someone more than earning them financial profit, play a secondary role. However, this is an aspect inherent in the human behavior that is easily influenced by both culture and the income level of each individual. For instance, people with

higher annual income are more likely to spend helping others and seeing their overall happiness increase (Dunn et al., 2008).

In this regard, it is theoretically possible to position individuals, based on their attitudes and preferences, in specific categories. Therefore, Lukkarinen et al. (2017) identify 3 distinct categories. The first, the so-called donate oriented supporters, who, just like those who do charity, are driven only by motivations related to helping others. The second category, the so-called return-oriented supporters, who want to help others but also look to a possible financial return. Finally, the so-called pure investors, guided exclusively by profit logic.

However, one aspect is almost totally overlooked which is the passion for something. Passion is probably one of the chief motivations that drive people to become passionate about eSports and it may have a role in influencing their participation in reward crowdfunding campaigns related to them. The TPB requires individuals to make decisions taking into consideration key aspects that could influence their decisions (Ajzen, 1991). However, passionate people do not contribute to crowdfunding campaigns without considering the risks, the level of commitment, and the time period in which the financial return (in the case of equity crowdfunding) or the reward (in reward crowdfunding) will manifest itself.

Hence, in our context of analysis, one of the first aspects to consider is the attitude that an individual has towards eSports. Considering the attitude as the innate disposition for certain activities, some studies have identified some motivation that can influence the attitude regarding crowdfunding campaigns: perceived risk, trust, commitment, and overall passion (Lukkarinen et al., 2017; Zhao et al., 2017). These are aspects that arise in a more or less evident way based on the information in their possession about the game (Shneor and Munim, 2019). In this regard, the credibility of game developers concerns the trust that investors have in the developer's promise to organize and deliver a thrilling eSport event and satisfying reward (Courtney et al., 2017).

Individuals who have a passion and motivations for eSports are more likely to have all necessary information about the game and the eSport event that they are funding (Kaiser et al., 2007). The passion for eSports, the main reason why people is thrilled with them, is potentially able to influence the attitude they have towards the crowdfunding campaigns to finance related events. Based on these considerations, it is possible to hypothesize that:

HP1: Individual motivation on eSports positively impact individual attitude on crowdfunding campaign.

Another psychological aspect that may affect the individual decision-making process is the intention to participate in a crowdfunding campaign. Intention can be defined as anything that people want and plan to do in their day life. Drawing on self-presentation theory (Schlenker and Leary, 1982), an individual may intend to contribute to crowdfunding campaigns to give someone else a positive image of itself. In eSports this aspect arises when an individual participates in a campaign and the more he donates, the more rewards he is given. These “gifts” can be shown to other users by increasing their recognition within a community. Psychological aspects that are also confirmed by Bretschneider and Leimeister (2017) which show that the intention to invest in certain projects is driven by the desire to improve individual's image. Moreover, Ryu and Kim (2014) have highlighted others several motivations that could raise intentions to contribute financially through crowdfunding campaigns: relationship with other people, playfulness, interest, being part of a group, receiving something in return (the reward), and having fun. Based on these considerations we hypothesize that:

HP2: Individual motivation on eSports positively impact financial intention on crowdfunding campaign.

Closely connected to intentions is the behavior that an individual has towards a phenomenon. While the two appear extremely similar, there is a difference that sets them apart. As underlined by Shneor and Munim (2019) sometimes the intentions do not automatically result in a behavior that leads to the fulfillment of an action, that is the behavior. For instance, a person would have the intention to invest in a certain project but does not have enough information, so its behavior is to refuse to financially support that project. As highlighted by Deci and Ryan (1985) “motivation is the energizations of behavior”. Many researchers have dealt with motivation and behavior connections (e.g., Sheeran, 2002; Gupta and Thomas, 2019; Magni et al., 2020; Rossi et al., 2020), and one of the main motivations that may influence individual's behavior is being passionate. Being passionate about eSports can influence the financial behavior related with decisions to participate in the crowdfunding campaigns. Furthermore, what can also influence individual behavior are personal interconnections between individuals (Agrawal et al., 2015). For example, it is possible to expect that in a group of friends playing the same video game if one spends some money on it then individuals of the same group will also have the same behavior. Based on these considerations, we assume the following:

HP3: Individual motivation on eSports positively impact financial contribution behavior on crowdfunding campaign.

2.4. Perceived Usefulness of digital technologies as moderator in the eSport individual motivation and crowdfunding

At the beginning of digital technology entering people' life, there was a rising needs for understanding psychological reasons on why a new technology may be accepted or declined (Marangunić and Granić, 2015). Based on Technology Acceptance Model (TAM) (Davis, 1989), people believe that the adoption of a technology can increase their performance in any activities, and it can influence individual physiological characteristics (Davis *et al.*, 1989; Venkatesh and Davis, 2000). Personal behavior in accepting a technology is influenced by perceived usefulness and perceived ease of use. In particular the perceived usefulness, i.e. person's belief using a particular technology, will be helpful in improving performance in certain activities (Lee, 2009). While the perceived ease of use is the individual's belief that using a technology does not involve any effort and can produce the required benefits. As underlined by Davis (1989) "*Although certainly not the only variables of interest in explaining user behavior, they do appear likely to play a central role*", observation confirmed also by more recent studies (e.g., Shneor and Munim). In fact, studies on web and mobile-based adoption behavior have highlighted that ease of use and the perceived usefulness help as reliably effective predictors of technology adoption in different context, such as: online banking services (Ewe et al., 2015), Web portals (Shih, 2008), online payment transactions (Wu and Wang, 2005).

Scholars have established that the purpose to adopt a technology is connected with the expected outcomes (Roh and Park, 2019). In particular, the perceived usefulness affects the behaviors of individuals (Karahanna et al., 2006). Hence, when eSports enthusiasts perceive that crowdfunding is useful to support the events and the video game, they are passionate about, then they are more and more inclined to use it and their motivations and behavior will be influenced by these perceptions.

Hence, contextualizing the relationship between eSports and crowdfunding, it is conceivable that the more an individual has an aptitude to accept a technology due to perceived usefulness, the more its motivations and psychological aspects (i.e., attitudes, intentions and behaviors) on being eSports enthusiastic and support them with crowdfunding campaigns are more likely to happen. Based on these conceptual and theoretical considerations we hypothesize that:

HP4: The perceived usefulness positively moderates the relationship between individual motivations in eSports and the Attitude on Crowdfunding Contribution (ACC)

HP5: The perceived usefulness positively moderates the relationship between individual motivations in eSports and the Financial Contribution Intention (FCI)

H6: The perceived usefulness positively moderates the relationship between individual motivations in eSports and the Financial Contribution Behavior (FCB)

[Figure 1 here]

3.Methodology

3.1 Study Sample

To understand the relationship between individual motivation, funding intention, financial behaviour and perceived usefulness a survey was conducted through the Prolific platform in December 2021(Palan and Schitter, 2018). To recruit the sample, we paid 1 \$ per participant and the average time to complete the survey stood at 6 minutes. This is in line with payments made by studies that have previously used Prolific (e.g., Kappes et al., 2020).

Moreover, Prolific allows users to apply some inclusion or exclusion criteria to decide who the questionnaire will be submitted to. An "eSport" filter was used in this study, which made it possible to identify people who have knowledge on electronic sports and not get results skewed by a lack of knowledge on the subject.

The questionnaire was briefly introduced to the participants through an introduction that explained the phenomenon of eSports, crowdfunding and, in general, digital technology and digital transformation. The questionnaire consists of 45 questions, all based on previous studies (AppendixA), in order to properly identify the items necessary to measure the variables used in the econometrics models. The questions that were included are based on the literature described above and 7-likert was used as a measurement scale. The time to obtain all the answers that then make up the final sample was 5 hours. The respondents were 326.

To avoid non-response bias (Rialti et al., 2019) one month before uploading to Prolific, November 2021, the questionnaire was submitted to 10 academics to make sure there were no unambiguous questions, clearly structured, easy to complete and we measured the time it takes to complete it. A too long time to complete it would have risked leading to distortions of the

results given by a decrease in the attention of the participants. Once this test was verified and passed, the questionnaire was validated and no longer modified.

Moreover, one of the main criticisms leveled at survey-based studies is the "bias findings" (Czarnitzki and Kraft, 2009). For example, studies based on multiple sectors risk being plagued by this issue. However, it can be argued that, by focusing exclusively on a single sector, this study should not suffer from this issue. In addition, individual psychological aspects are considered in this study, making the presence of such a bias even more unlikely (Santoro *et al.*, 2021).

In the construction of the variables, we decided to use a single respondent and include the questions referring to both the dependent and independent variables in a single questionnaire. This choice, other choices would have led to other problems, may generate common method variance issues (Lindell and Whitney, 2001). To reduce this problem, the following steps were followed based on previous studies. First, as performed by Bullough *et al.* (2014), all items are collected following methodological approach adopted by previous studies, allowing a comparison in the answer obtained. Second, the questionnaire is anonymous, eliminating the problems of possible non-anonymity, which makes the participants more likely to lie (Santoro *et al.*, 2021). Finally, all questions were constructed without including ambiguous or difficult terms which could confuse the participants.

3.2 Variables

3.2.1 Dependent variable: Attitude on Crowdfunding Contribution (ACC)

Attitude can be defined as the innate disposition for certain activities, even as an object of evaluation for the purpose of orientation in certain activities. To measure the aptitude of individuals to participate in crowdfunding campaigns we have relied on the study by Shneor and Munim (2019). It consists of 6 different items (AppendixA) adapted to the needs of our study. In particular, the items, and therefore the questions that were submitted to the participants, were developed with specific reference to eSports and the use of crowdfunding as a financing method to support the sector.

Confirmatory factor analysis (CFA) was used to confirm the reliability of the items. It allowed us to confirm that the variable thus constructed can reflect our conceptualization. Furthermore, Cronbach's Alpha for the variable "attitude" was found to be 0.91, higher than the accepted threshold of 0.7 (Bagozzi and Yi, 1988). Parameter that allows to further confirm the reliability of the measure used.

3.2.2 Dependent variable: Financial Contribution Intention (FCI)

To construct the "Financial Contribution Intention" variable we followed the methodology and definition of Shneor and Munim (2019). They define it as: "Individual's intention to provide monetary backing to a crowdfunding campaign". The variable is based on 5 different items (AppendixA). As with the "attitude" variable, the questions were adapted by including the term eSport in their wording. Also, both CFA and Cronbach's Alpha were used to determine the reliability of the construct. The use of the CFA confirmed that the items used correctly reflect our conceptualization. Cronbach's Alpha has a value of 0.89, less than the value obtained from the "attitude" variable but still higher than the 0.7 necessary. Hence, the use of this variable does not risk destabilizing the reliability and validity of the developed models.

3.2.3 Dependent variable: Financial Contribution Behavior (FCB)

To understand the behavior of individuals, with reference to crowdfunding campaigns, we used the approach of Shneor and Munim (2019). In this case the items used were 2 (AppendixA) and adapted again for our research by including the term eSport in the development of the questions. As for the dependent variables described above, also in this case we proceeded to use the CFA and the Cronbach's Alpha test (0.78). The Cronbach's Also the one with the lowest value of the 3 dependent variables, however the minimum value is exceeded, resulting in any issues in the development of the model. In this case the analyzes also allowed to confirm the reliability and validity of the constructs used.

3.2.4 Independent variable: eSports Motivation

The independent variable "motivation", that is the motivations that push people to be interested in eSports, is based on the study by Pizzo et al. (2018). They compared the motivations that push fans to follow sports and the motivations of those who follow eSports instead. The questions have been adapted by replacing only the word "sport" with the word "eSport". For example, Pizzo et al. (2018) used "I consider myself a fan of Sport", we adapted it to "I consider myself a fan of eSport". The practice of adapting questions is widespread in the literature and allows to expand certain concepts in similar searches (e.g., Shneor and Munim, 2019, Jaspers and Pearson, 2022). 7 different items were used that allow an important level of reliability and validity compared to the use of a single item. Details on the "motivation" variable are reported in Appendix A.

3.2.4 Moderator variable: perceived usefulness (PU)

To measure perceived usefulness an individual level, we relied on the study by Jaspers and Pearson (2022). It was necessary to adapt the questions of each individual item to make them consistent with our study. For example, their study focused on the internet of things (IOT) and one of their questions asks participants if "Using IOT devices enable me to accomplish my tasks more quickly", in our study it has been adapted as follows: "Using digital technology enable me to accomplish my tasks more quickly ". The other 3 items (3 in total) that make up the variable are listed in appendix A. To confirm the reliability and validity of the data collected, the CFA and Cronbach's Alpha were carried out, both giving positive results.

4. Analysis

4.1. Descriptive statistics

Table 1 shows the descriptive statistics, the reliability (Cronbach alpha) and the Variance Inflation Factor (VIF) of each variable and table 2 shows the correlation matrix.

Regarding the dependent variables, the aptitude (ACC) showed an average value of 3.71 with a standard deviation of 1.47. The "intention" variable has a smaller value than aptitude and has an average value of 2.52 and a standard deviation of 1.57. The last dependent variable, the Financial Contribution Behavior, has average values of 1.89 with a standard deviation of 1.55. As far as the independent variable motivation is concerned, the average value among the respondents stands at 4.80 with a standard deviation of 1.55. Finally, the perceived usefulness variable, i.e., the interaction term, has average values of 5.89 and a standard deviation of 0.97. To avoid any multicollinearity problems, the Variance Inflation Factor (VIF) of each variable was calculated. The results obtained range from a minimum of 1.56 for the control variable age to a maximum of 2.21 for the FCB. As suggested by Hair (1995), the limit value to avoid possible multicollinearity problems, which would lead to an invalidity of the regression models applied, is 10. Some theorists are even more rigorous and establish the limit at 5. Taking valid, and shareable, both values defined by the literature it is possible to affirm, with a certain degree of certainty, that this research is not afflicted by any problem of multicollinearity.

[Table 1 near here]

[Table 2 near here]

4.2 Regression Results

To test the hypotheses of our study, we used the Ordinary Least Square models (e.g., Nirino et al., 2021; Santoro et al., 2020). In models 1,3 and 5 the effects of motivation on the three variables related to crowdfunding were tested. The results that emerged are positive and significant for all three models. In model 1 the motivations have a positive and significant impact ($b = 0.229$; $p < 0.01$) on the attitude (ACC) that individuals have on possible crowdfunding campaigns linked to eSports. In model 3, in which the effect of motivations on the intentions of individuals linked to campaigns was tested, the results remain positive and significant ($b = 0.568$; $p < 0.01$). Finally, model 5 tested motivations on the behavior of individuals. In the latter model the results were also positive and significant ($b = 0.222$; $p < 0.01$). On the basis of what has been obtained, it is possible to state that the first 3 hypotheses of this study (Hp1, Hp2 and Hp3) are supported by empirical analysis. More in-depth discussions and analysis of the implications are reported in the next paragraph.

In models 2,4 and 6 the moderating effect of PU was tested from an individual point of view. Starting from model two, on aptitude, the results are generally positive ($b = 0.038$; $p < 0.1$). The interaction term in addition to being positive, even if with a significance level of 10%, increases the coefficient of the independent variable which goes from 0.229 to 0.460. Therefore, it is possible to confirm hypothesis 3. In model 4 we see a completely similar effect; the interaction term is positive and significant ($b = 0.033$; $p < 0.1$) and its inclusion in the model causes an increase in the coefficient of the variable motivation. Based on these results it is possible to accept hypothesis 5 of our study. Finally, in the last model presented in table 3, we inserted the interaction term of the PU in the relationship between motivation and financial contribution behavior, and also in this case the results were positive and significant ($b = 0.021$; $p < 0.1$). Furthermore, the coefficient of motivation increases from 0.222 of model 5 to 0.289 of model 6. Therefore, it is also possible to accept hypothesis 6.

Finally, some considerations on the control variables. Income is positive and significant in all 6 models, which is not surprising considering it is plausible that at higher income the tendency to invest and spend money is higher. As far as education is concerned, it is significant and positive only in models 3,4,5 and 6. This result could be given by the fact that education is able to influence only certain behaviors and psychological aspects. On the other hand, as regards the gender and age of the individuals involved in the study, they did not show any significance.

[Table 3 near here]

5. Discussion and conclusions

Theoretical and managerial contributions

Our study aims to investigate the relationships between eSports, financial behaviour and reward crowdfunding in the digital transformation era. Based on the Planned Behaviour Theory and Technology Acceptance Model (TAM), the psychological aspects that lead people to be passionate about eSports and the role that crowdfunding could play in this industry were investigated. The research used a quantitative approach based on 326 individuals with knowledge about the world of eSports.

The cognitive and behavioural aspects are the focus of this research and have led to interesting results with important theoretical and practical implications. First, the individual motivations that lead people to be passionate about eSports seem to be able to influence their attitude, their intentions and their behaviour in participating in crowdfunding campaigns. More generally, this would suggest that people who are motivated and passionate about something are more likely to financially support certain activities. The second aspect is the role that perceived usefulness of digital technology has in the relationship described above. In particular, based on the Technology Acceptance Model (TAM) it was possible to verify that individuals with a greater digital aptitude are more involved in the world of eSports and consequently more likely to support them through reward crowdfunding. It is possible to assume that from a financial point of view the eSports sector can be financed by their followers guaranteeing a financial balance with respect to whom the video game develops. This creates an inbound cash flow that allows you to support developers, players and event organizers. Furthermore, it is possible to assume that "financial backers" see their passion increased once they financially support an eSports. Based on these results, the theoretical contributions are manifold.

First, this research contributes to the emerging literature on eSports (e.g., Funk et al., 2018; Jenny et al., 2017; Hallmann and Giel, 2018). Specific studies seeking to investigate the individual characteristics of people who are passionate about eSports were and will still be needed. In particular, our contributions are to be identified on the psychological motivations of individuals that lead to being attracted about such activities. Furthermore, adopting a behavioural approach (Pizzo et al., 2018) the motivations that drive people to become passionate seem to be able to influence even potential activities connected to them, in our case the reward crowdfunding campaigns. Based on the results obtained, motivations appear to be able to influence: (i) Attitude on Crowdfunding Contribution (ACC); (ii) Financial Contribution Intention (FCI) and Financial Contribution Behavior (FCB). It is possible to hypothesize that the motivations that lead to being passionate about eSports are also able to

influence the attitude, intentions, and behaviours of other activities, including non-financial ones, related to eSports.

Moreover, as underlined by Cunningham et al. (2018), eSport literature suffers from a big problem creating an important gap to fill: "most studies are atheoretical in nature". From this point of view, we believe we have enriched the literature on eSports by giving important theoretical bases of reference on the motivations and implications that eSports have on individuals. In particular, our effort focused on behavioural and financial aspects, testing two reference theories such as the TPB and the TAM.

The second main contribution is on the crowdfunding literature (Battisti et al., 2021; Vrontis et al., 2020), on the behavioral and psychological aspects of individuals. In particular, our research considers specifically the reward crowdfunding, topic overlooked in the current literature. From this point of view, people participate in reward crowdfunding companies if they are passionate about the activity that crowdfunding is trying to finance. However, the passion for something does not always have to be considered in its positive sense. What we are unable to say is whether they participate in a reward crowdfunding to help others, to increase their gratification or because they are addicted (in a negative sense) to the game.

It is possible to believe that reward crowdfunding follows different theoretical logics from equity crowdfunding. It is characterized by a strong component either altruistic (considering it a tool to help someone) or selfish (considering it a tool to be more recognized in a community). We believe that reward crowdfunding has different characteristics based on what are the purposes for which an individual uses it. Being detached from a profit-oriented perspective, typical of equity crowdfunding, probably the theories applicable to study the phenomenon are to be found in the behavioral sciences.

The third contribution is on the Theory of Planned Behavior (Ajzen, 1991; Shneor and Munim, 2019), in particular on the attitude, intention and behavior of individuals regarding financial decisions related to reward crowdfunding. The paper also contributes to validating and applying TPB in the context of eSport and reward-crowdfunding. The reasons that push individuals to be passionate about eSports seem to be the antecedents that push individuals to participate in crowdfunding campaigns connected to them. In particular, Shneor and Munim (2019) were the first to validate and apply the TPB to the context of reward crowdfunding. We have applied the TPB identifying the motivations and the passion towards a specific event or activity as the cause of the financial decisions of individuals in reward crowdfunding. Finally, with our work we have contributed to the literature on digital transformation (Bertello et al., 2021; Bresciani et al., 2018; Scuotto et al., 2017; Scuotto et al., 2016). In particular,

considering the perceived usefulness of individuals as moderator in the motivational and behavioral aspects of individuals, in the context of eSports and reward crowdfunding.

The results also made it possible to obtain important managerial contributions. It is important to point out that not all eSports are supported through crowdfunding campaigns (a successful example is Dota2, which leads this eSport to have the highest prize pool in a video game competition, over 40 million dollars), it is therefore possible to suggest that crowdfunding could be a useful tool to support professional players and employees of the companies involved. What we suggest from a practical point of view, given the results obtained, is that all eSports should try to adopt a funding system based on crowdfunding to support developers, professional players and therefore the teams and all other actors who participate in this sector. An individual who financially supports an eSports may be more loyal. In addition, its financial support, compared to other sources of funding, is almost at no cost.

Having a solid financial system for eSports is a key aspect for their growth and for expanding development possibilities. Giving financial stability to professional players is essential and it creates many business opportunities (e.g., events, merchandising etc.) the lack of this feature threatens to disaffect many professional players and with them thousands of fans. In fact, the players have fans following them, and the fans are the potential financial backers of the eSports that these players are involved in. We suggest that practitioners in this sector pay particular attention to these aspects.

Limits and future research lines

This research is not limitless. First, it does not consider the cultural characteristics of individuals. For example, certain cultures appear to be more digital than others (e.g., Japanese) and aspects such as religion could have influences in certain contexts. In this regard, we believe that future studies should be carried out on individuals from multiple states to validate and underline the differences potentially obtained with compared to our study (Ferraris et al., 2020). Furthermore, as the main motivation for being "eSport enthusiast" we have considered almost exclusively the passion. However, there may be other psychological aspects, both positive and negative, that could push individuals to participate in reward crowdfunding campaigns. Future studies should investigate these other psychological aspects.

From a theoretical point of view, in this study we tested two theoretical constructs, expanding the theories tested in the same context of analysis would broaden the knowledge available to scholar and practitioners.

Regarding the moderating effect, we considered the individual "perceived usefulness", but other effects could influence the main relationship. For example, how does eSports communication affect the behavior of individuals? Moreover, it cannot be ruled out that the passion for a particular eSport may only be momentary or vary over time. This is something that should be investigated in the future. In fact, a change in the motivations that lead a person to be passionate about an eSport could see her choices regarding whether or not to finance an eSports event change. The development of a longitudinal study with primary and / or secondary data would advance the knowledge in our possession, opening the way to new interesting lines of research.

Appendix

Appendix A: Variables, Items and sources

<i>Variables</i>	<i>Items</i>	<i>References</i>
<i>Attitude on crowdfunding contributions (ACC) (Dependent 1)</i>	I think I would like contributing to eSport crowdfunding campaigns.	Adapted and added eSport in the question (Shneor and Munim, 2019)
	I am likely to feel good about contributing to eSport crowdfunding campaigns.	Adapted and added eSport in the question (Shneor and Munim, 2019)
	I think contributing to eSport crowdfunding campaigns is good for me	Adapted and added eSport in the question (Shneor and Munim, 2019)
	I think contributing to eSport crowdfunding campaigns is appropriate for me.	Adapted and added eSport in the question (Shneor and Munim, 2019)
	I think contributing to eSport crowdfunding campaigns is beneficial for me.	Adapted and added eSport in the question (Shneor and Munim, 2019)
	I have a positive opinion about contributing to eSport crowdfunding campaigns.	Adapted and added eSport in the question (Shneor and Munim, 2019)
<i>Financial contribution intention (FCI) (Dependent 2)</i>	Given the chance, I intend to financially contribute to eSport crowdfunding campaigns.	Adapted and added eSport in the question (Shneor and Munim, 2019)
	Given the chance, I predict that I would financially contribute to eSport crowdfunding campaigns in near future.	Adapted and added eSport in the question (Shneor and Munim, 2019)

	It is likely that I will financially contribute to eSport crowdfunding campaigns in the near future	Adapted and added eSport in the question (Shneor and Munim, 2019)
	I have the intention to financially contribute to eSport crowdfunding campaigns.	Adapted and added eSport in the question (Shneor and Munim, 2019)
	I intend to actively contribute to eSport crowdfunding campaigns financially.	Adapted and added eSport in the question (Shneor and Munim, 2019)
<i>Financial contribution behaviour (FCB) (Dependent3)</i>	I frequently contribute financially to crowdfunding campaigns.	Shneor and Munim, 2019
	I spend much effort in financially contributing to crowdfunding campaigns.	Shneor and Munim, 2019
<i>eSport Motivation (Motivation) (Independent)</i>	I consider myself a fan of eSport	Adapted and modified “sport” in “eSport” (Pizzo <i>et al.</i> , 2018)
	I feel a sense of accomplishment when my favorite eSport team/player wins	Adapted and modified “sport” in “eSport” (Pizzo <i>et al.</i> , 2018)
	I find eSport matches very exciting	Adapted and modified “sport” in “eSport” (Pizzo <i>et al.</i> , 2018)
	The main reason I attend eSport matches is to cheer for my favorite player/team	Adapted and modified “sport” in “eSport” (Pizzo <i>et al.</i> , 2018)
	Successful plays and strategies performed by the players are an important component of eSport being enjoyable	Adapted and modified “sport” in “eSport” (Pizzo <i>et al.</i> , 2018)
	eSport players inspire me	Adapted and modified “sport” in “eSport” (Pizzo <i>et al.</i> , 2018)
	I can increase my understanding of strategy by watching eSport matches.	Adapted and modified “sport” in “eSport” (Pizzo <i>et al.</i> , 2018)
<i>Perceived usefulness (Moderator)</i>	Using digital technologies enable me to accomplish my task more quickly	Adapted and modified the question by replacing “IOT” with “digital devices” (Jaspers and Pearson, 2022)
	Using digital technologies improve my productivity in my daily life	Adapted and modified the question by replacing “IOT” with “digital technologies” (Jaspers and Pearson, 2022)
	Using digital technologies enhance my effectiveness in daily tasks	Adapted and modified the question by replacing “IOT” with “digital technologies” (Jaspers and Pearson, 2022)

	Using digital technologies make my life easier	Adapted and modified the question by replacing “IOT” with “digital technologies” (Jaspers and Pearson, 2022)
<i>Gender</i>	Dummy variable (0=man; 1=woman)	Santoro et al. (2021)
<i>Age</i>	Respondent’s age	Santoro et al. (2021)
<i>education</i>	Respondent’s education dummy (1 = bachelor or master degree; 0= less than bachelor’s degree)	Santoro et al. (2021)
<i>Income</i>	Respondent’s monthly income (1= higher than 1499 Euro; 0= less than 1499 Euro)	

References

- Agrawal, A., Catalini, C. and Goldfarb, A. (2015), “Crowdfunding: Geography, Social Networks, and the Timing of Investment Decisions”, *Journal of Economics & Management Strategy*, Vol. 24 No. 2, pp. 253–274.
- Ajzen, I. (2011), “The theory of planned behaviour: Reactions and reflections”, *Psychology & Health*, Vol. 26 No. 9, pp. 1113–1127.
- Bagozzi, R.P. and Yi, Y. (1988), “On the evaluation of structural equation models”, *Journal of the Academy of Marketing Science*, Vol. 16 No. 1, pp. 74–94.
- Battisti, E., Graziano, E.A. and Christofi, M. (2021), “Equity crowdfunding platforms and social media: a Twitter analysis”, *International Journal of Entrepreneurial Behavior & Research*, Vol. ahead-of-print No. ahead-of-print, available at: <https://doi.org/10.1108/IJEBR-01-2021-0081>.
- Belleflamme, P., Lambert, T. and Schwienbacher, A. (2014), “Crowdfunding: Tapping the right crowd”, *Journal of Business Venturing*, Vol. 29 No. 5, pp. 585–609.
- Bertello, A., Ferraris, A., Bresciani, S. and De Bernardi, P. (2021), “Big data analytics (BDA) and degree of internationalization: the interplay between governance of BDA infrastructure and BDA capabilities”, *Journal of Management and Governance*, Vol. 25 No. 4, pp. 1035–1055.
- Bresciani, S., Ferraris, A. and Del Giudice, M. (2018), “The management of organizational ambidexterity through alliances in a new context of analysis: Internet of Things (IoT) smart city projects”, *Technological Forecasting and Social Change*, Vol. 136, pp. 331–338.
- Bretschneider, U. and Leimeister, J.M. (2017), “Not just an ego-trip: Exploring backers’ motivation for funding in incentive-based crowdfunding”, *The Journal of Strategic Information Systems*, Vol. 26 No. 4, pp. 246–260.

Bullough, A., Renko, M. and Myatt, T. (2014), “Danger Zone Entrepreneurs: The Importance of Resilience and Self-Efficacy for Entrepreneurial Intentions”, *Entrepreneurship Theory and Practice*, Vol. 38 No. 3, pp. 473–499.

Cholakova, M. and Clarysse, B. (2015), “Does the Possibility to Make Equity Investments in Crowdfunding Projects Crowd Out Reward-Based Investments?”, *Entrepreneurship Theory and Practice*, Vol. 39 No. 1, pp. 145–172.

Courtney, C., Dutta, S. and Li, Y. (2017), “Resolving Information Asymmetry: Signaling, Endorsement, and Crowdfunding Success”, *Entrepreneurship Theory and Practice*, Vol. 41 No. 2, pp. 265–290.

Cunningham, G.B., Fairley, S., Ferkins, L., Kerwin, S., Lock, D., Shaw, S. and Wicker, P. (2018), “eSport: Construct specifications and implications for sport management”, *Sport Management Review*, Vol. 21 No. 1, pp. 1–6.

Czarnitzki, D. and Kraft, K. (2009), “Capital control, debt financing and innovative activity”, *Journal of Economic Behavior & Organization*, Vol. 71 No. 2, pp. 372–383.

Davis, F.D. (1989), “Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology”, *MIS Quarterly*, Vol. 13 No. 3, p. 319.

Davis, F.D., Bagozzi, R.P. and Warshaw, P.R. (1989), “User Acceptance of Computer Technology: A Comparison of Two Theoretical Models”, *Management Science*, Vol. 35 No. 8, pp. 982–1003.

Dunn, E.W., Aknin, L.B. and Norton, M.I. (2008), “Spending Money on Others Promotes Happiness”, *Science*, Vol. 319 No. 5870, pp. 1687–1688.

Ewe, S.Y., Yap, S.F. and Lee, C.K.C. (2015), “Network externalities and the perception of innovation characteristics: mobile banking”, *Marketing Intelligence & Planning*, Vol. 33 No. 4, pp. 592–611.

Ferguson, C.J. (2013), “Violent video games and the Supreme Court: Lessons for the scientific community in the wake of *Brown v. Entertainment Merchants Association*.”, *American Psychologist*, Vol. 68 No. 2, pp. 57–74.

Ferraris, A., Giudice, M.D., Grandhi, B. and Cillo, V. (2020), “Refining the relation between cause-related marketing and consumers purchase intentions: A cross-country analysis”, *International Marketing Review*, Vol. 37 No. 4, pp. 651–669.

Funk, D.C., Beaton, A. and Alexandris, K. (2012), “Sport consumer motivation: Autonomy and control orientations that regulate fan behaviours”, *Sport Management Review*, Vol. 15 No. 3, pp. 355–367.

- Funk, D.C. and James, J. (2001), “The Psychological Continuum Model: A Conceptual Framework for Understanding an Individual’s Psychological Connection to Sport”, *Sport Management Review*, Vol. 4 No. 2, pp. 119–150.
- Funk, D.C., Pizzo, A.D. and Baker, B.J. (2018), “eSport management: Embracing eSport education and research opportunities”, *Sport Management Review*, Vol. 21 No. 1, pp. 7–13.
- Goldstein, J.H. (1989), *Sports, Games, and Play: Social and Psychological Viewpoints*, L. Erlbaum Associates, Hillsdale, N.J., available at: <http://site.ebrary.com/id/10639196> (accessed 20 January 2022).
- Gupta, G. and Bose, I. (2019), “Strategic learning for digital market pioneering: Examining the transformation of Wishberry’s crowdfunding model”, *Technological Forecasting and Social Change*, Vol. 146, pp. 865–876.
- Gupta, V. and Thomas, A. (2019), “Fostering tacit knowledge sharing and innovative work behaviour: an integrated theoretical view”, *International Journal of Managerial and Financial Accounting*, Vol. 11 No. 3/4, p. 320.
- Hair, J.F. (Ed.). (1995), *Multivariate Data Analysis with Readings*, 4th ed., Prentice Hall, Englewood Cliffs, N.J.
- Hallmann, K. and Giel, T. (2018), “eSports – Competitive sports or recreational activity?”, *Sport Management Review*, Vol. 21 No. 1, pp. 14–20.
- Hughes, L. and Leavey, G. (2012), “Setting the bar: athletes and vulnerability to mental illness”, *British Journal of Psychiatry*, Vol. 200 No. 2, pp. 95–96.
- Jaspers, E.D.T. and Pearson, E. (2022), “Consumers’ acceptance of domestic Internet-of-Things: The role of trust and privacy concerns”, *Journal of Business Research*, Vol. 142, pp. 255–265.
- Jenny, S.E., Manning, R.D., Keiper, M.C. and Olrich, T.W. (2017), “Virtual(ly) Athletes: Where eSports Fit Within the Definition of ‘Sport’”, *Quest*, Vol. 69 No. 1, pp. 1–18.
- Kaiser, S., Müller-Seitz, G., Pereira Lopes, M. and Pina e Cunha, M. (2007), “Weblog-Technology as a Trigger to Elicit Passion for Knowledge”, *Organization*, Vol. 14 No. 3, pp. 391–412.
- Kappes, H.B., Gladstone, J.J. and Hershfield, H.E. (2021), “Beliefs about Whether Spending Implies Wealth”, edited by Inman, J.J. and Monga, A. *Journal of Consumer Research*, Vol. 48 No. 1, pp. 1–21.
- Karahanna, Agarwal, and Angst. (2006), “Reconceptualizing Compatibility Beliefs in Technology Acceptance Research”, *MIS Quarterly*, Vol. 30 No. 4, p. 781.

Laplume, A.O., Sonpar, K. and Litz, R.A. (2008), “Stakeholder Theory: Reviewing a Theory That Moves Us”, *Journal of Management*, Vol. 34 No. 6, pp. 1152–1189.

Lazonick, W. and Tulum, Ö. (2011), “US biopharmaceutical finance and the sustainability of the biotech business model”, *Research Policy*, Vol. 40 No. 9, pp. 1170–1187.

Leis, O. and Lautenbach, F. (2020), “Psychological and physiological stress in non-competitive and competitive esports settings: A systematic review”, *Psychology of Sport and Exercise*, Vol. 51, p. 101738.

Li, F. (2020), “The digital transformation of business models in the creative industries: A holistic framework and emerging trends”, *Technovation*, Vol. 92–93, p. 102012.

Lindell, M.K. and Whitney, D.J. (2001), “Accounting for common method variance in cross-sectional research designs.”, *Journal of Applied Psychology*, Vol. 86 No. 1, pp. 114–121.

Lukkarinen, A., Wallenius, J. and Seppälä, T. (2017), “Investor Motivations and Decision Criteria in Equity Crowdfunding”, *SSRN Electronic Journal*, available at: <https://doi.org/10.2139/ssrn.3263434>.

Magni, D., Pezzi, A. and Vrontis, D. (2020), “Towards a framework of students’ co-creation behaviour in higher education institutions”, *International Journal of Managerial and Financial Accounting*, Vol. 12 No. 2, p. 119.

Marangunić, N. and Granić, A. (2015), “Technology acceptance model: a literature review from 1986 to 2013”, *Universal Access in the Information Society*, Vol. 14 No. 1, pp. 81–95.

Maslow, A.H. (1943), “A theory of human motivation.”, *Psychological Review*, Vol. 50 No. 4, pp. 370–396.

Morgan, W.J. (Ed.). (2007), *Ethics in Sport*, 2nd ed., Human Kinetics, Champaign, IL.

Nirino, N., Santoro, G., Miglietta, N. and Quaglia, R. (2021), “Corporate controversies and company’s financial performance: Exploring the moderating role of ESG practices”, *Technological Forecasting and Social Change*, Vol. 162, p. 120341.

Orlowski, J. and Wicker, P. (2015), “The monetary value of social capital”, *Journal of Behavioral and Experimental Economics*, Vol. 57, pp. 26–36.

Palan, S. and Schitter, C. (2018), “Prolific.ac—A subject pool for online experiments”, *Journal of Behavioral and Experimental Finance*, Vol. 17, pp. 22–27.

Pels, F. and Kleinert, J. (2016), “Loneliness and physical activity: A systematic review”, *International Review of Sport and Exercise Psychology*, Vol. 9 No. 1, pp. 231–260.

- Pizzo, A., Baker, B., Na, S., Lee, M.A., Kim, D. and Funk, D. (2018), "http://fitpublishing.com/articles/influence-emotions-game-and-service-satisfaction-and-behavioral-intention-winning-and", *Sport Marketing Quarterly*, Vol. 27 No. 2, available at: <https://doi.org/10.32731/SMQ.272.062018.04>.
- Powdthavee, N. (2008), "Putting a price tag on friends, relatives, and neighbours: Using surveys of life satisfaction to value social relationships", *The Journal of Socio-Economics*, Vol. 37 No. 4, pp. 1459–1480.
- Rialti, R., Zollo, L., Ferraris, A. and Alon, I. (2019), "Big data analytics capabilities and performance: Evidence from a moderated multi-mediation model", *Technological Forecasting and Social Change*, Vol. 149, p. 119781.
- Roh, M. and Park, K. (2019), "Adoption of O2O food delivery services in South Korea: The moderating role of moral obligation in meal preparation", *International Journal of Information Management*, Vol. 47, pp. 262–273.
- Rossi, M., Festa, G., Papa, A., Kolte, A. and Piccolo, R. (2020), "Knowledge management behaviors in venture capital crossroads: a comparison between IVC and CVC ambidexterity", *Journal of Knowledge Management*, Vol. 24 No. 10, pp. 2431–2454.
- Ryu, S. and Kim, Y.-G. (2016), "A typology of crowdfunding sponsors: Birds of a feather flock together?", *Electronic Commerce Research and Applications*, Vol. 16, pp. 43–54.
- Santoro, G., Bertoldi, B., Giachino, C. and Candelo, E. (2020), "Exploring the relationship between entrepreneurial resilience and success: The moderating role of stakeholders' engagement", *Journal of Business Research*, Vol. 119, pp. 142–150.
- Santoro, G., Messeni-Petruzzelli, A. and Del Giudice, M. (2021), "Searching for resilience: the impact of employee-level and entrepreneur-level resilience on firm performance in small family firms", *Small Business Economics*, Vol. 57 No. 1, pp. 455–471.
- Santoro, G., Vrontis, D., Thrassou, A. and Dezi, L. (2018), "The Internet of Things: Building a knowledge management system for open innovation and knowledge management capacity", *Technological Forecasting and Social Change*, Vol. 136, pp. 347–354.
- Schlenker, B.R. and Leary, M.R. (1982), "Audiences' reactions to self-enhancing, self-denigrating, and accurate self-presentations", *Journal of Experimental Social Psychology*, Vol. 18 No. 1, pp. 89–104.
- Scuotto, V., Ferraris, A. and Bresciani, S. (2016), "Internet of Things: applications and challenges in smart cities. A case study of IBM smart city projects.", edited by Al-Mashari, M. and Del Giudice, M. *Business Process Management Journal*, Vol. 22 No. 2, available at: <https://doi.org/10.1108/BPMJ-05-2015-0074>.

- Scuotto, V., Santoro, G., Bresciani, S. and Del Giudice, M. (2017), “Shifting intra- and inter-organizational innovation processes towards digital business: An empirical analysis of SMEs”, *Creativity and Innovation Management*, Vol. 26 No. 3, pp. 247–255.
- Sheeran, P. (2002), “Intention—Behavior Relations: A Conceptual and Empirical Review”, *European Review of Social Psychology*, Vol. 12 No. 1, pp. 1–36.
- Shih, H.-P. (2008), “Continued use of a Chinese online portal: an empirical study”, *Behaviour & Information Technology*, Vol. 27 No. 3, pp. 201–209.
- Shneor, R. and Munim, Z.H. (2019), “Reward crowdfunding contribution as planned behaviour: An extended framework”, *Journal of Business Research*, Vol. 103, pp. 56–70.
- Troise, C., Matricano, D., Candelo, E. and Sorrentino, M. (2022), “Entrepreneurship and fintech development: comparing reward and equity crowdfunding”, *Measuring Business Excellence*, Vol. 26 No. 1, pp. 52–63.
- Troise, C., Tani, M. and Jones, P. (2020), “Investigating the impact of multidimensional social capital on equity crowdfunding performance”, *International Journal of Information Management*, Vol. 55, p. 102230.
- Venkatesh, V. and Davis, F.D. (2000), “A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies”, *Management Science*, Vol. 46 No. 2, pp. 186–204.
- Vrontis, D., Christofi, M., Battisti, E. and Graziano, E.A. (2020), “Intellectual capital, knowledge sharing and equity crowdfunding”, *Journal of Intellectual Capital*, Vol. 22 No. 1, pp. 95–121.
- Wann, D.L. (1995), “PRELIMINARY VALIDATION OF THE SPORT FAN MOTIVATION SCALE”, *Journal of Sport and Social Issues*, Vol. 19 No. 4, pp. 377–396.
- Wattanapisit, A., Wattanapisit, S. and Wongsiri, S. (2020), “Public Health Perspectives on eSports”, *Public Health Reports*, Vol. 135 No. 3, pp. 295–298.
- Weiss, T. and Schiele, S. (2013), “Virtual worlds in competitive contexts: Analyzing eSports consumer needs”, *Electronic Markets*, Vol. 23 No. 4, pp. 307–316.
- Wu, J.-H. and Wang, S.-C. (2005), “What drives mobile commerce?”, *Information & Management*, Vol. 42 No. 5, pp. 719–729.

Zhao, Q., Chen, C.-D., Wang, J.-L. and Chen, P.-C. (2017), “Determinants of backers’ funding intention in crowdfunding: Social exchange theory and regulatory focus”, *Telematics and Informatics*, Vol. 34 No. 1, pp. 370–384.