

What makes consumers see an activity as sporty? Conceptualization, measurement and preliminary effects of perceived sportivity

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Abstract

People allocate more time and resources to their leisure and hobbies than ever. One of the preferred activities refers to watching sports, as evidenced by the impressive audiences of lived sports worldwide. While the degree of sportivity might explain individual's engagement in the watching of the activity, extant literature has left unexamined the conceptualization and measurement of the sportivity of an activity, preventing a clear examination of its effects. Therefore, this research aims to define and develop a measure of the concept of "perceived sportivity". Specifically, after a literature review on the notion of sportivity, we present five different qualitative and quantitative studies that develop an 11-item scale of perceived sportivity. Results show that perceived sportivity is a reflexive second order construct composed of three dimensions – physicality, commerciality, and equipment– that has broad effects on consumer engagement and behaviour.

Keywords: Sportivity, Scale, Leisure

Track: Consumer behavior

1. Introduction

The sport industry represents one of major cultural and economic importance, as evidenced by its worldwide annual revenues that exceed \$1.5 trillion per year (Devlin, 2020). Beyond the economic interest of sports, brands may find another interest of being associated with sports: consumers often value perceived sportivity, and activities perceived as sporty are fertile grounds for building communities (Hedlund, 2014). These communities consume more actively than other communities (Gantz et al., 2006), making sport-related branded entertainments appealing opportunities for successful long-term relationships between consumers and brands.

However – and although some institutions like the International Olympic Committee (IOC) exist that state what activities can institutionally be considered as sports –, when it comes to specifying what perceived sportivity actually means for consumers, no definition exists. One potential reason might be that sportivity represents a multi-meaning concept, which encompasses a multitude of leisure activities and practices, making its definition debatable and its measure problematic. The recent development of activities associated with sports – such as esports, or multiplayer sport video games played competitively for spectators, typically by professional gamers (Seo, 2013) – may represent another source of confusion when it comes to defining sportivity. Such activities bring back the interrogations regarding the requirements needed for an activity to be classified as a sport (Andrews & Ritzer 2018; Seo, 2013). For instance, it is widely believed that for an activity to be sporty, some physicality must be involved (Elias & Dunning, 1986; Guttmann, 1978). Even in the context of esports – yet not truly be considered as a sport (Hamari & Sjöblom, 2017) –, physicality appears essential to performance, exactly as in traditional sports (Hilvoorde & Pot, 2016; Witkowski, 2012). Although no debate seems to exist around physical requirements, some other potential components of sportivity are still a source of discussion, with for instance the need for the development of mental abilities through sports (Wagner, 2006).

Given this lack of a clear conceptualization of perceived sportivity – that is, the extent to an activity can be considered as sporty in consumers' mind –, this research aims to reach three goals. First, we aim to provide a clear conceptualization of what makes an activity considered sporty. Second, after examining what elements in leisure activities help consumers to categorize them as sporty, we follow Churchill's (1979) procedure and address the pressing need for a scale of perceived sportivity with strong psychometric qualities. Such a scale is needed for any brand that may be interested in a sporty positioning, or for any researcher

interested in the effects of perceived sportivity. Building such a scale, we aim to reach a third goal, which refers to the preliminary identification of the effects of perceived sportivity on consumers' responses.

2. Conceptual Background on Perceived Sportivity

From an experiential standpoint, perceived sportivity relates to consumers' perception of the degree of sportiness associated with a leisure activity. The concept seems to have emerged mostly from and investigated by the sociological (Elias & Dunning, 1986; Guttmann, 1978; Pfister, 2003) and historical (Ulmann, 1965) sport literatures. However, because not yet defined, the concept of perceived sportivity remains to be clearly conceptualized. Importantly, the construct must be clearly distinguished from that of sport – which finds some definitions from legal, recognized international and local institutions – and may be referred to as the extent to which an activity is associated with a sport in consumers' mind.

Originating from the United-Kingdom in the 19th Century, sporty activities find their origin also in the industrialization process (Elias & Dunning, 1986). Such activities emerged as alternatives to newly routinized lives of English citizens, as a way for people to physically release their feelings. Then extending to the rest of Europe to become a global phenomenon, those activities underwent a professionalization process, being institutionalized as a global entertainment product after World War II (Maguire, 1999). Sporty activities became a massive entertainment all around the world, ruled at first by national and international institutions (Pfister, 2003) but then appropriated by people, cultures and medias (Carlson, 2018). It is that appropriation, according to Carlson (2018), which explains the constant emergence and development of new sporty activities.

Therefore, the sport product could today be considered as an entertainment product designed by institutions or federations for consumers, containing a physical component due to its historical nature. However, and although the sport status can only be obtained through institutionalisation, this status does not define perceived sportivity in consumer's mind. Hence, a gap still exists between the status of an activity as a sport and its perception by the consumers. The following scale aims to reduce this gap by highlighting the elements that influence consumers' perceptions of perceived sportivity in activities.

3. Developing the Perceived Sportivity Scale

We follow Churchill (1979) and conduct five empirical studies (one qualitative and four quantitative) to develop and validate the scale of perceived sportivity. Data collection for the qualitative study was performed through in-depth individual interviews. The data for the quantitative interviews were collected online, via Prolific and Norstat.

3.1. Study 1: Item generation and face validity

A sociological and historical literature review of the concept (Elias & Dunning, 1986; Guttmann, 1978; Pfister, 2003; Ulmann, 1965) concluded to nine possible dimensions of perceived sportivity. In order to have a clear understanding of all the components of the construct, 24 (12 women, 12 men; from 18 to 80 years of age) qualitative individual semi-directed interviews were performed, ranging from 25 minutes to 1 hour 15 minutes in length. The interviews took place in respondents' homes and included both projective techniques (i.e., showing pictures of activities that differed in some potential dimensions) and open questions that focused on the different dimensions identified in the literature. We then concluded the interviews with an open question on the respondent's perception of sports in general.

Two content analyses were performed, one with the software Nvivo, and one manually. The content analyses revealed ten possible dimensions of perceived sportivity, respectively physicality, mentality, commerciality, institutions, performance, health, science, social, play and atmosphere. All these dimensions but "atmosphere" reflected themes that were mentioned in the literature. Some of the dimensions (physicality, mentality, health, play, performance) directly pertained to the people engaging in sports, while others (institutions, science...) related to the institutionalization and practices of sports. Finally, three dimensions referred to surrounding components of sports, such as marketing, finance, or fans (commerciality, atmosphere, social). These ten dimensions lead to the development of a pool of 130 items.

Five marketing professors and sports specialists were contacted to evaluate the items. After discussion, some of the items were reformulated to be more appropriate or clear. Once reframed, all the items were then tested for scale reduction and purification. They all were phrased using a seven-point Likert scale, ranging from "1: fully disagree" to "7: fully agree".

3.2. Study 2: Purification of the measurement scale through exploratory analysis

In this first quantitative data collection, we solicited input from 319 online respondents (49.2% women, $M_{Age} = 29.7$, $SD = 12.5$). Due to the length of the questionnaire, we included

an attention check to make sure of the quality of the data. Participants were exposed to a randomized picture of an institutional sport, chosen from a pool of twelve pictures of distinct sports that were believed to differ in the potential dimensions. Participants then had to answer to the 130 statements (Likert scale, “1 = Fully disagree” to “7 = Fully agree”).

An exploratory factor analysis (EFA) with a Varimax rotation revealed 4 dimensions – respectively “physicality”, “commerciality”, “equipment” and “well-being” –, all with Eigenvalues greater than 1 (Hair et al., 2014). These dimensions comprised 26 items and accounted for 61.43% of the total variance. After discussion with experts who unanimously saw the dimension “well-being” as an outcome of the perceived sportivity, and not as one of its components, the decision was made to remove it from the construct. The scale was thus composed of the three dimensions of physicality, commerciality, and equipment. Physicality refers to the observable physical effort needed for an activity to be categorized as sporty. Commerciality refers to the economics and marketing aspects needed for an activity to be considered as sporty, more commerciality leading to more perceptions of sportivity. Finally, equipment refers to the need of specific tools to practice the activity.

To further purify the scale, items with unsatisfactory psychometric qualities (i.e., loadings below .50 and cross-loading items – were dropped (Hair et al., 2014). Out of the 22 remaining items, 20 exhibited factor loadings greater than .70. In terms of reliability, the respective Chronbach’s alpha for the three dimensions of physicality, commerciality, and equipment, were respectively .95, .84 and .86, and judged satisfactory. Hence, after EFA, the final scale contained 22 items and was reliable.

3.3. Study 3: Confirmation of the measurement scale

In order to confirm the three-dimension factorial structure of the scale, a confirmatory factor analysis (CFA) was performed. Using the same procedure as in study 2, we collected online data from 440 respondents (52.7% women, $M_{Age} = 47.17$, $SD = 15.81$). Respondents were randomly exposed to a picture of a sporty activity (e.g., tennis, horse riding...) out of the same set of twelve activities used in study 2, and asked to rate the perceived sportivity of the activity. The CFA (AMOS; 5000 bootstraps) tested perceived sportivity as a second order reflexive construct formed by physicality, commerciality and equipment. The correlations across the dimensions (from .12 to .26) supported this approach.

The CFA was performed following Bagozzi and Yi’s procedure (1988). While no issue with the preliminary fit criteria was observed, the overall model fit and the internal structure fit criteria were just acceptable. The decision was made to remove the items with high (> 2)

standardized residuals (Hoelter, 1983), before retesting our model fit. After removal of the problematic items, we ended up with 11 items, 5 reflecting physicality, 3 reflecting commerciality, and 3 for equipment (Table 1). The resulting Chronbach's alphas were all acceptable, respectively .93 for physicality, .86 for commerciality and .84 for equipment.

Regarding the model fit, because of the controversy surrounding the Goodness of Fit Index due to its sensitivity to sample size (Hu & Bentler, 1999), we examined indicators, such as the TLI, the CFI, the SRMR and the RMSEA. Importantly, we compared results from a CFA testing perceived sportivity as a second-order construct (TLI =.988, CFI =.991, SRMR =.057, RMSEA =.040) and those from another CFA that tested the construct as first-order (TLI =.988, CFI =.991, SRMR =.057, RMSEA =.040). No difference in the resulting model fit indices was observed when switching from a first-order to second-order construct, providing support for perceived sportivity as a higher-order construct.

Table 1

Results of the confirmatory factor analysis (loadings and t-statistics)

Item	Study 3		Study 4		Study 5	
Physicality (CR; AVE): "This activity..."	(.928; .789)		(.919; .758)		(.945; .820)	
Requires a certain physical condition	.883	-	.872	-	.931	-
Requires a lot of energy	.833	23.39	.811	15.13	.767	20.17
Requires a good physical preparation	.886	26.41	.888	17.78	.909	30.52
Demands a good physical shape	.847	24.15	.746	13.21	.833	24.06
Requires endurance	.854	24.54	.846	16.64	.951	35.57
Commerciality (CR; AVE): "This activity..."	(.857; .790)		(.889; .811)		(.871; .794)	
Has marketing interests	.860	-	.851	-	.775	-
Is generally very sponsored	.860	17.69	.853	14.11	.873	16.60
Generates a lot of related merchandise	.766	19.46	.854	13.86	.847	16.36
Equipment (CR; AVE): "This activity..."	(.835; .772)		(.833; .743)		(.923; .870)	
Requires a specific equipment	.816	-	.909	-	.955	-
In this activity there is a dedicated equipment	.853	17.53	.790	11.11	.898	28.23
Cannot be practiced without adequate equipment	.766	16.39	.661	9.64	.850	24.25

Notes: CR = composite reliability; AVE = average variance extracted. All factor loadings are significant at $p < .001$. In each column, the loading appears on the left and the associated t-statistic is on the right.

3.4. Study 4: Convergent and discriminant validity

With study 4, we test for convergent and discriminant validity. We used the same procedure as in studies 2-3 with 217 online participants (37.8% women, $M_{Age} = 29.74$, $SD = 9.51$). After being randomly assigned to one of the twelve pictures of a sporty activity, participants were asked to rate their degree of agreement with the 11 items of the scale. For discriminant validity purposes, we considered the theoretically related constructs (perceived

physical-efficacy, competence, marketing metacognition, use-of-equipment). Specifically, because physicality is recognized as a means for physical efficacy (Ryckman et al., 1982), we included an adapted 10-item (Ryckman et al., 1982; $\alpha = .77$). We then included a 2-item marketing metacognition scale (Yoo et al., 2000; $r = .87$) to test the discriminant validity of the commerciality dimension. Finally, our equipment dimension led us to include the 3-item use-of-equipment scale (Morgeson & Humphrey, 2006; $\alpha = .72$).

Convergent validity was appraised using Chronbach's Alpha and the Average Variance Extracted (AVE). Cronbach's Alphas were all satisfying (.92 for physicality, .88 for commerciality, and .82 for equipment), and AVEs were all greater than .50 (.76 for physicality, .81 for commerciality, and .74 for equipment), bringing support for the convergent validity of the scale. Turning to discriminant validity, the AVEs for perceived physical efficacy (.58), competence (.56), marketing metacognition (.93), and use-of-equipment (.64) were all greater than their respective squared correlations with the dimensions of perceived sportivity, establishing discriminant validity.

3.5. Study 5: Testing nomological validity

In study 5, we test the nomological validity of the scale. From prior research on sport consumption (Mason, 1999; Mullin et al., 2007), we identify some outcomes of perceived sportivity. Specifically, because of research showing that consumers derive great value from sport products (Kunkel et al., 2017), we anticipate that perceived sportivity could predict the overall perceived value of an activity. From Fox (1999), we also believe well-being could represent an outcome of perceived sportivity.

We also identified possible outcomes for every dimension of the scale. Based on research on efforts, we predicted physicality to prompt engagement intentions (Passyn & Sujana, 2012; Leung et al., 2020). For our second dimension, because commerciality is recognized as detrimental for perceived authenticity (Beverland & Farrelly, 2010), we expected the commerciality dimension of an activity to be negatively associated with authenticity. Finally, drawing on research on art and design, we expected equipment to have a positive influence on pleasure and escapism (Pullman & Gross, 2004).

To test these predictions, we recruited 401 online participants. After checking for attention and level of comprehension, the final sample was composed of 367 participants (44.1% women, $M_{Age} = 30.19$, $SD = 10.69$). After being randomly exposed to a 45 seconds soundless video of an activity chosen, respondents had to rate their agreement with the scale of perceived sportivity as well as those measuring its predicted outcomes. Specifically, our

previous 4-item dimension of well-being ($\alpha = .89$) was included in the questionnaire, as well as a 6-item global value scale (Williams et al., 2020; $\alpha = .87$). Then, following Sutton (1998), a 3-item measure of engagement intention was included ($\alpha = .86$), as well as an adapted 2-item perceived authenticity measure (Cinelli & Laboef, 2019; $r = .48$). Further, a 3-item measure of escapism (Russell et al., 2004; $\alpha = .90$) and a 4-item measure of emotion (Lawler et al., 2000; $\alpha = .89$) were included. The paths coefficients supported the predicted effects of the perceived sportivity scale and its dimensions (p 's $< .05$; Table 2), supporting the nomological validity of the scale.

Table 2: The test of the nomological validity of the scale

	Path Coefficient	<i>t</i> value
Physicality → Engagement Intention	.149	2.725 ***
Commerciality → Peceived Authenticity	-.207	-4,038 ***
Equipment → Escapism	.147	2.837 ***
Equipment → Emotions (4)	.222	4.346 ***
Perceived sportivity → Well-being	.398	5.418 ***
Perceived sportivity → Global value	.297	4.247 ***

4. Discussion

The proposed scale contributes to the service and branding literatures by offering a clear conceptualization and measure of what sportivity means in consumer mind. Perceived sportivity appears as a second order reflexive formed by the three dimensions of physicality, commerciality and equipment. Because the perceived sportivity scale can be applied to any leisure activity, brands and marketers of the leisure activities industry might find interests in using this scale to help them assess their positioning and brand their offer as sporty. Moreover, because perceived sportivity has been linked to authenticity, value and engagement intention, it could help predict consumer behaviour regarding leisure activity and sports.

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