
The Link Between Business Relations and Success of an Organization: A Research Study

Submitted 11/07/21, 1st revision 29/07/21, 2nd revision 23/08/21, accepted 15/09/21

Adam Wiśniewski¹

Abstract:

Purpose: Research in the field of business models is a challenge from the point of view of management science. Despite the increasing number of publications on this subject, attempts are still made to scrutinize the mechanisms of creating value by enterprises. An attempt was made to define an element of the business model which is the relationship with the measurable success of a sports club.

Design/Methodology/Approach: Twenty-four volleyball clubs from the two highest levels of competition in Poland were studied. There was used a survey questionnaire research. The collected results were analyzed using the basic statistical tools presented in the article. In effect there was possibility to estimate Coefficient of Sports Club Relations.

Findings: Main effect of the research was an indication of the correlation of the relationship element with the broadly defined success of the sports club, which as part of the conducted research, was defined as the market occupied position. Also, elements of relations have been identified that particularly imply the organization's success

Practical Implications: The article is a reference point for further research on the creation of values by sports organizations and is a contribution to the science of business models in general and, consequently, to the specific of the sports industry. The Coefficient of Sports Club Relations, developed as part of the research, provides an opportunity to explore collaboration with other organizations and determine the entity's market position and potential.

Originality/Value: The presented tool introduces an innovative way of thinking about newly-built relationships. It brings new insights into relationship management. The discussed issue has been taken up for the first time on the team sport market in Poland and constitutes one of the scarce scientific items on a global scale.

Keywords: Relationships, value, competitiveness, sport industry, management.

JEL codes: L21, M00.

Paper Type: Research article.

Funding: This research received no external funding.

Conflicts of Interest: The author declares no conflict of interest.

¹University of Warmia and Mazury in Olsztyn, Poland, ORCID ID: 0000-0003-0395-9308, e-mail: adam.wisniewski@uwm.edu.pl

1. Introduction

According to the classic approach to production, the value is the difference between the expected sum of benefits and the total cost incurred in relation to the offer in the counter to the offer of competing companies (Kotler, 2005). In a similar vein, the value is defined by Treacy and Wiersema (1995), who described it as the sum of benefits for the client less the costs incurred by him to purchase the product or service. An individual perspective is also emphasized by the statement that from the perspective of the client, any perception of personal benefits resulting from the client's relationship with the company's offer is a value (Woodal, 2003). At the same time, it should be remembered that according to the theory of Smith and Ricardo (Smith, 1993) the concept of "value" means that human work is the "creator" of value. Marx (1985) suggested that the additional value can be created only by means of work. Hence, he identified the labor cost with the value generated in the process of its consumption, looking from the perspective of the difference between them generated by the use process. In the literature, the role of the client gradually evolved from the position of the recipient of goods to the decisive side in the relational process of value creation (Heinonen, Strandvik, Mickelsson, Edvardsson, Sundström and Andersson, 2010). The value became a unique element and uniquely defined by the client (Vargo and Lusch, 2004).

Bican and Brem (2020) underlined the fact that value is not only a resource consumption but also is able to strengthen and deepen customer interaction. Therefore, the conclusion was made that value is best defined as use-value (Grönroos and Voima, 2012). The recipient determines the creation and shaping of it. As rightly pointed out, the supplier is a potential moderator and co-creator only due to the relational nature of the process of creating common solutions (Grönroos, 2008). Engaged client will finally manifest so called voluntary behaviors, such as helping other customers, providing feedback, and making recommendations (Hu, Huang, Yan, Liu, and Zhang, 2020).

2. Materials and Methods

The problem of creating and co-creating values is the source element of the concept of the business model. Brandenburger and Stuart (1996) stated that the business model determines the organization's approach to generating income at a reasonable cost and engages the principles of creating and capturing values. It can be said that the business model is the core logic of the organization about creating value (Linder and Cantrell, 2020). Some authors state that business models centers on the value proposition, source of revenue and the product and service delivery aspects (Asikin, Baker, Villano and Daryanto, 2020).

In addition to the prospect of creating and offering value, you can see the aspect of earning income or other benefits in the form of value capture for the enterprise. Chesbrough (2007) directly defines a two-pronged aspect, saying that the business model describes creating and gaining value. Weill and Vitale (2001) focusing on the

content of the business model, indicated that it contains a description of the roles and relationships between customers, contractors and suppliers of the company, which allows identification of the main streams of products, information and money and benefits for participants. Al-Debei and Avison (2010) assuming that the business model describes the way in which the organization creates value (Amit and Zott, 2001) presented a two-entry classification of value propositions:

- 1) An approach in which the organization together with suppliers and partners (business actors) creates value for recipients (Magretta, 2002; Osterwalder, Pigneur, and Tucci, 2005; Rajala and Westerlund, 2007).
- 2) An approach in which the organization together with shareholders creates value for every party involved in the business (Stahler, 2002; Andersson, Bergholtz, Edirsuriya, Ilayperuma, Johannesson, Gregoire, Schmitt, Dubois, Abels, Hahn, Gordijn, Weigand, and Wangler, 2006).

On the other hand, there is an important aspect of value creation. “Producing value for the customer will not benefit the company. Only capturing value in its favor will give the firm a tangible advantage. In the market, a plethora of companies compete for customers, therefore, capturing value takes place under conditions of competitive struggle” (Oliński and Szamrowski, 2016).

Brettel, Strese, and Flatten (2012) indicated that the organization should focus on relations with its key clients and the business model on enterprises. One of the more frequently appearing elements in the quoted definitions of values and the business models are the recipients. An important conclusion from the above statements is that without the recipient there is no value. It is logical to adopt a relationship as an element determining the success of a business. Since the recipient from the role of a passive observer becomes a co-designer of the products, the aspects related to the proper communication and the way of aggregating the acquired information become crucial. As Dankiewicz said “information about uncertain and changing surroundings can have a positive impact on the effectiveness of decisions” (Dankiewicz, Ostrowska-Dankiewicz and Bulut, 2020). Sikorski (2018) points out, creating the broadly understood offer should follow the pattern:

Figure 1. Scheme for building long-term value with clients [27]



Source: Sikorski and Brodnicki (2018).

According to this assumption, the customer interacting with the seller (e.g., by going to the bookstore to buy a book) must perform certain activities, which is the transaction and through subsequent visits to the store builds relationships that in turn convert into the form of relationships with their value. Another important aspect of relationship is that the possibility to develop future cooperation should be assured by the adopted

development strategy, which is in line with the environmental entities' expectations (Rudzewicz, 2018). Business models determines establishing direct communication with customers for better understanding their problems (Gupta *et al.*, 2020). Administrative relations are also important. They focus on the institutions with which sports organizations have to deal with. Their goals are focused around "four basic areas: identity, economic development, social welfare and community governance (Marks-Bielska, Lizińska, Wojarska, and Babuchowska, 2020).

Ng, Ding and Yip (2013) underlined the need to build the ability to cooperate with customers and determine the creation of value by the company and the implementation of contracts. The value of contracts and customer relationships form a related system (Norman and Ramirez, 1993). As emphasized by Morris, Schndehutte, Richardson, and Allen (2006), attempts to decompose the business model so far have brought little knowledge about the nature of relationships in this concept. At the same time, they point out that a sustainable strategic position can be maintained thanks to one of five bases, operational excellence, product capabilities (e.g.. quality, availability or features), innovation leader position, low costs or "intimate" relationships or experiences with clients. The process of peeling the position of an enterprise must be embedded in relations with "neighbors" in the value creation network (Dyer and Singh, 1998). Clear leadership position plays major role in holistic management approach. It is shown as a major factor of people controlling aspect in organization (Pisar and Bilkova, 2019). Business model is also defined in the method of "doing" business; emphasizes what it is to generate income (Rappa, 2004).

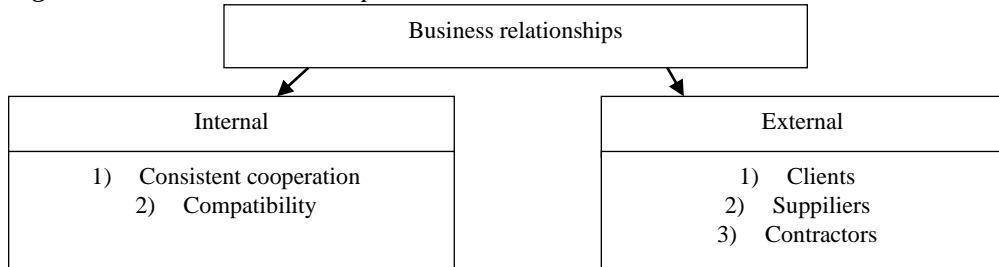
Accordingly, openness and digitization become the challenge for enterprises. Special relations with clients that build a unique position of the organization may no longer be sustainable, as the recipients may apply for offers from many other bidders via the Internet (Afuah and Tucci, 2000).

Business relationships are always carried out in two ways, as illustrated in Figure 2. The first turn of the company's relations is focused on internal relations. Second outside of the organization. In the case of internal relations, there are two priorities for the activities carried out (Falencikowski, 2012). Relationships of consistent cooperation are focused on ensuring a high positive correlation between internal components that ensure part cooperation for the success of the entire business. The priority of compatibility is focused on eliminating the gaps in the organization's elements and the processes taking place around value creation.

Enterprises run external relations with many "actors". The most frequently mentioned are clients, partners, suppliers, financial and government units (Ferreira, Proenca, Spencer, and Cova, 2013). The most important relationships from the point of view of creating value are relations with clients. Each "actor" shapes its own forms of relationship with the enterprise (Cantu, Corsaro, and Snehota, 2012), and through the existing relationships with clients, enterprises are looking for new forms of reaching buyers (Osterwalder and Pigneur, 2010). Cardeal, Höse, Rbeiro, and

Götze (2020) underlined the challenge to identify social and environmental-related relationships and its dependance on implemented business model.

Figure 2. Business relationships



Source: Own research.

3. Results

Volleyball clubs in Poland operate on market principles analogous to traditional enterprises. In the past two decades their role has changed. Nowadays sport organizations “are transforming into enterprises which have to ensure the economic efficiency of their operations” (Wyszyński, 2016). The distinguishing feature is sport activity, which is a key area for success in other areas of business. Clubs appearing on the two top levels are fully professional units. The rhythm and the schedule of functioning is imposed by the system of sport games managed by the Polish Volleyball Federation (PZPS SA) and the Professional Volleyball League (PLPS SA). For reporting and supervisory purposes, the clubs also cooperate with the Regional Volleyball Association and government offices. Clubs participating in competitions compete on the generally accepted rules of volleyball games and during the season they take part in league games, for the Polish Cup or in international competitions. In order to ensure the functioning, the players and the training staff responsible for the preparation of athletes in terms of sport are employed.

According to the results of the conducted research, volleyball clubs strive for business and sports success. Both of these goals are coupled together and cannot be achieved separately. This results in acceptance as a determinant of the success of the sports results achieved, because behind them “financial results” generated, *inter alia*, in the form of acquiring new business partners, including sponsors, “come”. Sports results in a cumulative way are presented in the form of a Table of competitions, where points for the results of the played matches and set balances of individual duels are taken into account. A graduation system of league matches enables their total imaging. In this way, in a hypothetical Table consisting of two successive leagues, the last team from the upper league will occupy the position in front of the first team of the lower league. It is also justified by the system of playoff games for promotion/drop from the league, in which the weakest teams of the upper league compete with the best of its backbone to remain in the competition.

During the period covered by the research, both sports leagues classifications has resulted with gradation of 28 volleyball clubs presented in Table 1. Analogous ranking for clubs of the 1st League presented itself according to the information contained in Table 2.

Consequently, to the presented information and adopted assumptions there is right to merge both league in gradual ranking that shows all clubs in presented population with preserved system of results achieved after season 2017/2018. It is presented in Table 3.

Table 1. *PlusLiga club rank after season 2017/2018*

Rank	Club
1.	PGE Skra Bełchatów
2.	ZAKSA Kędzierzyn-Koźle
3.	Trefl Gdańsk
4.	Indykpol AZS Olsztyn
5.	Jastrzębski Węgiel
6.	Asseco Resovia Rzeszów
7.	Cuprum Lubin
8.	Onico Warszawa
9.	Aluron VIRTU Warta Zawiercie
10.	Czarni Radom
11.	GKS Katowice
12.	Espadon Szczecin
13.	MKS Będzin
14.	Łuczniczka Bydgoszcz
15.	BBTS Bielsko-Biała
16.	Dafi Spółem Kielce

Source: PlusLiga rankings.

Table 2. *1st League club rank after season 2017/2018*

Rank	Club
1.	AZS Częstochowa
2.	KS Lechia Tomaszów Mazowiecki
3.	Ślepsk Suwałki
4.	Krispol Września
5.	AZS PWSZ Stal Nysa
6.	AGH AZS Kraków
7.	Exact System Norwid Częstochowa
8.	TSV Sanok
9.	KPS Siedlce
10.	Chełmiec Wałbrzych
11.	STS Olimpia Sulęcín
12.	SMS PZPS Spała

Source: PlusLiga rankings.

As a result of the considerations, the following hypotheses were put forward:

- 1) There is a significant relationship between the relationship element and the success (measured by the position of the volleyball club).
- 2) Internal relations have a stronger correlation with the position of the volleyball club than external relations.

Table 3. Merged club rank for Plusliga and 1st League clubs after 2017/2018 season

Rank	Club
1.	PGE Skra Bełchatów
2.	ZAKSA Kędzierzyn-Koźle
3.	Trefl Gdańsk
4.	Indykpol AZS Olsztyn
5.	Jastrzębski Węgiel
6.	Asseco Resovia Rzeszów
7.	Cuprum Lubin
8.	Onico Warszawa
9.	Aluron VIRTU Warta Zawiercie
10.	Czarni Radom
11.	GKS Katowice
12.	Espadon Szczecin
13.	MKS Będzin
14.	Łuczniczka Bydgoszcz
15.	BBTS Bielsko-Biała
16.	Dafi Społem Kielce
17.	AZS Częstochowa
18.	KS Lechia Tomaszów Mazowiecki
19.	Ślepsk Suwałki
20.	Krispol Września
21.	AZS PWSZ Stal Nysa
22.	AGH AZS Kraków
23.	Exact System Norwid Częstochowa
24.	TSV Sanok
25.	KPS Siedlce
26.	Chełmiec Wałbrzych
27.	STS Olimpia Sulęcín
28.	SMS PZPS Spała

Source: Own research.

4. Research Methodology

The research was carried out in years 2017-2018. The conducted research was aimed at the full population of volleyball clubs appearing in the two top classes in Poland. Of the 28 clubs, four refused to participate in the study. The final group analyzed is therefore 24 clubs, 85.71% of the population. Fourteen clubs played in the highest class - PlusLiga, ten at the lower level - 1st League. Respondents were Presidents of clubs or persons indicated by them. Participation in the study was voluntary. Respondents were asked to assess the level of each of the features listed in the questionnaire on a six-point scale, from 0 - "not applicable", 1- "very low" to 5 - "very high". Higher results indicate a higher assessment of the level of implementation of a given element of the relationship. The questions concerned the issue of internal and external relations. Internal relations focused on the following areas: management, employees of the training staff, young players, experienced players², foreign players, clubs' other employees. External relations were grouped in the following areas: relationships with suppliers, with competitors, with the federation, administrative, with clients. This way all determinants were classified in a scheme presented in Table 4.

Table 4. External relationships of a sports club

Category of relationship	Object of relationship
Relationships with suppliers	Match service
	Transport
	Hotels
	Alimentation
	Medical services
	Suppliers of medical accessories and nutrients
	Suppliers of sports equipment
	Sports clothing suppliers
	Entities renting sports facilities
	Suppliers of office articles
	Energy and media suppliers
Relationships with competitors	Other volleyball clubs
Relationships with the federation	PLS SA
	Regional volleyball federation
	PZPS SA
Administrative relationships	City Hall
	Provincial office
	Courts
	Others
Customer relationships	Business
	Organized groups
	Individual customer

² The division into young and experienced players was carried out on the basis of the criterion: played two or fewer seasons at the level of PlusLiga / 1.Liga or equivalent. Players who played more than two seasons at this level were classified as "experienced".

On the other hand, each organization conducts internal relationships that could be crucial for its final success. Therefore, the study also took into consideration this problem. Based on earlier description the survey provided classification presented in the Table 5.

Table 5. *Internal relationships of a sports club*

Category of relationship	Object of relationship
Relationships between the staff employees	
Relationships between players	Relationships between foreign and young players
	Relationships between foreign and experienced players
	Relationships between experienced and young players
Relationships between foreign players and staff employees	
Relationships between experienced players and staff employees	
Relationships between young players and staff employees	
Relationships between other employees and staff employees	
Relationships between other employees and young players	
Relationships between other employees and foreign players	
Relationships between other employees and experienced players	
Relationships between the board members and staff employees	
Relationships between the board members and other employees	
Relationships between the board members and young players	
Relationships between the board members and experienced players	
Relationships between the board members and foreign players	

Source: Own research.

5. Instruments

The first aspect resulting from the conducted research was the possibility of estimating the Coefficient of Sports Club Relations. The surveys using the questionnaire included assessing elements on a six-point scale. In the conducted research, the reliability of the questionnaire, measured by Cronbach's alpha factor, amounted to 0.746.

Coefficient of Sports Club Relations has been estimated as the quotient of the intensity of external and internal relations. The equation is as follows:

$$CSCR = \frac{IER}{IIR}$$

Note:

CSCR – coefficient of sports club relations;

IER – intensity of external relations;

IIR – intensity of internal relations.

Calculation of the Coefficient of Sports Club Relations allows to estimate the model implemented and carried out by the club. To this end, the following assumptions were made: CSCR > 1 - external relations model; CSCR = 1 - balanced model; CSCR < 1

- internal relations model. The external relations model focuses on the organization's contacts with the market environment entities. The accents are shifted towards maintaining good relations with clients, suppliers and other stakeholders. In turn, the model of internal relations means that the club pays attention to the cooperation and compatibility of the internal entities of the sports club. The presented factor was estimated for the clubs participating in the study. The results are presented in Table 6.

Table 6. Coefficient of volleyball clubs' relationships

Club	CSCR	Model	Club	CSCR	Model
P1	0,90	IRM	P13	0,97	IRM
P2	1,08	ERM	P14	1,08	ERM
P3	0,98	IRM	L15	1,07	ERM
P4	1,12	ERM	L16	1,19	ERM
P5	0,62	IRM	L17	0,91	IRM
P6	1,06	ERM	L18	1,17	ERM
P7	0,90	IRM	L19	1,07	ERM
P8	0,74	IRM	L20	0,97	IRM
P9	0,94	IRM	L21	1,23	ERM
P10	0,94	IRM	L22	1,28	ERM
P11	0,89	IRM	L23	0,89	IRM
P12	0,85	IRM	L24	0,67	IRM

Source: Own research.

Clubs presented in Table 6 were coded according to the following key: the club of the higher division was marked with the symbol "P", while the 1st League with the symbol "L". The higher the competitive position the club took after the end of the games in the sports season 2017/2018, the higher number received in the ranking. According to the previous discussion, the clubs of both leagues have been consolidated into one, common ranking in a logical way. Hence the summary list of 24 clubs covered by the survey. Ten clubs implemented a model of external relations, 4 of them at PlusLiga level. In the remaining stress the relationship was based on internal relations.

The descriptive statistics as well as the results of the Kolmogorov-Smirnov test for the variables under study are presented in Table 7. For the examined group, the frequency of higher grades referred to external relations (from 39 to 99) than internal relations (from 30 to 75). The basic descriptive statistics used together with the Kolmogorov-Smirnov test, which examines the so-called normality of distribution for all variables (Stephens, 1992).

For two variables - relations with competitors and relations with clients - the test turned out to be statistically significant, which means that the distributions of the tested variables significantly differ from the normal distribution. That was due to widely accepted $p < 0,05$.

Table 7. Basics descriptive statistics of the studied variables with the Kolmogorov-Smirnov test

Coefficient – element of relationships	descriptive statistics								
	<i>M</i>	<i>Me</i>	<i>SD</i>	<i>Sk.</i>	<i>Kurt.</i>	<i>Min.</i>	<i>Maks.</i>	<i>K-S</i>	<i>P</i>
Relationships – general indicator	139,71	145,50	23,29	-1,24	2,75	70,00	179,00	0,14	0,200**
Relationships with suppliers	40,00	40,00	6,51	-0,12	0,79	25,00	55,00	0,11	0,200**
Relationships with direct competitors	3,58	4,00	1,02	-2,00	6,05	0,00	5,00	0,33	<0,001*
Relationships with federation	10,83	11,50	2,99	-0,33	-0,59	4,00	15,00	0,16	0,105**
Administrative relations	13,38	14,00	5,27	-0,68	-0,68	3,00	20,00	0,17	0,068**
Customer relations	11,83	12,00	2,48	-1,32	3,28	4,00	15,00	0,20	0,013*
External relations	79,63	14,06	14,05	-1,26	1,83	39,00	99,00	0,15	0,180**
Internal relations	56,54	57,00	11,70	-0,32	0,22	30,00	75,00	0,16	0,094**

Note: * $p \leq 0,05$ which indicates the significance of the Kolmogorov-Smirnov test; ** $p > 0,05$ which indicates the lack of significance of the Kolmogorov-Smirnov test.

M - medium; *Me* - median; *SD* - standard deviation; *Sk.* - skewness; *Kurt.* - kurtosis; *Min* and *Max* - the lowest and highest value of the indicator; *K-S* - Kolmogorov-Smirnov test result; *p* - significance of the K-S test

Source: Own research.

Additionally, none of the presented variables was characterized by a symmetrical distribution, which was verified using the skewness index (Sobczyk, 2007). In all cases left-sided asymmetry occurred.

In order to verify the hypotheses, put forward in the research, a correlation analysis using the rho-Spearman coefficient was used (Devlin, Gnanadesikan and Kettering, 1975). Its detailed results are presented in Table 8. The value of *p* assumes a threshold of 0.10 above which the results achieved are negligible. A *p*-value lower than 0.01 means a very significant result. Aczel, in turn, postulates that the result will be considered significant if $p < 0.05$ is reached (Aczel, 2000).

Table 8. Correlation of competitive position with individual elements of sports club relationships

Coefficient – element of relationship	Competitive position	
	Correlation coefficient (r)	Significance coefficient (p)
Relationships – general indicator	0,66	<0,001
Relationships with suppliers	0,40	0,050
Relationships with direct competitors	0,07	0,750
Relationships with federation	0,63	0,001
Administrative relations	0,15	0,470
Customer relations	0,66	<0,001
External relations	0,48	0,018
Internal relations	0,60	0,002

Source: Own research.

The research showed that the position of the club correlates statistically significantly with the overall ratio ($r = 0.66$, $p < 0.001$) as well as relations with the federation ($r = 0.63$, $p = 0.001$), with suppliers ($r = 0.40$, $p = 0.050$), with clients ($r = 0.66$, $p < 0.001$), external ($r = 0.48$, $p = 0.018$) and internal relations ($r = 0.60$, $p = 0.002$). This means that the higher the position of the club, the above-mentioned relationship elements are more important for the organization's success.

Such analysis allows to positively verify the first hypothesis (H1) that there is a significant relation between the relationship element and the position of the volleyball club. This is concerned about six from eight elements of relation. What is most important from the scope of the research that all major dimensions are significantly correlated with the club competitive position. This was verified for general indicator and both internal and external relations. Second hypothesis (H2) hypothesis was also positively verified. It postulated that internal relations have a stronger relationship with the position of the volleyball club than external relations. As the analysis shows, internal relations correlate statistically significantly with the correlation coefficient $r = 0.60$, while external relations have $r = 0.48$.

6. Conclusions

The conducted research indicates the important role of relationships in achieving success by sports clubs. The main elements here are relations with the federation (including with regional volleyball associations), relations with clients within business, organized groups and individual clients have been specified. Another important area are relations with suppliers for which eleven types of them have been specified.

The conducted studies, apart from the answers to questions related to the significance of the elements of relations, bring potential issues for further research. In subsequent stages, worth from the point of view of the science of sports organization management, it is possible to use the Coefficient of Club Sport Relations to explore the ability to cooperate with other clubs. Will the clubs using the external relations model have greater ability to cooperate with their rivals? How does time variability affect your relationships? Do clubs with an established position make changes in their relations? At the same time, some shortcomings related to the presented research were noticed.

First of all, the disadvantage is the ineffectiveness in reaching the full population of volleyball clubs. Building an image of all units would increase the value of the research carried out. Secondly, the selection of features in the questionnaire survey was subjective, burdened with experiences and potential cognitive gaps of the research team. Another limitation is the orientation of the study to representatives of one sport discipline which imposed the adoption of the culture prevailing in this environment and, in a sense, filtering research from the perspective of this industry.

The implementation of comparative research with other sports representatives will certainly bring additional benefits in subsequent stages of research. Some authors

consider the aspect of informal relations as their separate type. In the present study, they were co-present in each area and no separate filter was used. With such a small population, the importance of informal relations is growing, which may be an additional stimulus to move towards the External Relations Model.

Despite the presented limitations, the research strengthens knowledge about the relationships carried out by sports clubs. The presented elements introduce an innovative way of thinking about the relationships being built and allow to increase awareness of their use. The application of the Coefficient of Club Sports Relations may also support management decision making for building strategies and business models of sports organization.

References:

- Aczel, A.D. 2000. *Statystyka w zarządzaniu*. Wydawnictwo Naukowe PWN, Warszawa.
- Afuah, A., Tucci, C. 2000. *Internet business models and Strategies: text and cases*. McGraw Hill, Boston.
- Al-Debei, M., Avison, D. 2010. Developing a unified framework of the business model concept. *European Journal of Information Systems*, 19(3). DOI: 10.1057/ejis.2010.21.
- Amtt, R. Zott, C. 2001. Value Creation in eBusiness. *Strategic Management Journal*, 6-7(22), 493-520.
- Andersson, B., Bergholtz, M., Edirsuriya, A., Ilayperuma, I., Johannesson, P., Gregoire, B., Schmitt, M., Dubois, E., Abels, S., Hahn, A., Gordijn, J., Weigand, H., Wangler, B. 2006. Towards a reference ontology for business models. In *Proceedings of the 25th International Conference on Conceptual Modeling 2006 (ER2006)*, 6-9 November, Tucson, USA, 1-16. DOI: 10.1007/11901181_36.
- Asikin, Z., Baker, D., Villano, R., Daryanto, A. 2020. Business Models and Innovation in the Indonesian Smallholder Beef Value Chain, *Sustainability*, 12.
- Bican, P.M., Brem, A. 2020. Digital Business Model, Digital Transformation, Digital Entrepreneurship: Is There A Sustainable “Digital”? *Sustainability*, 12 (13), 5239.
- Brandenburger, A.M., Stuart H. 1996. Value-Based Business Strategy, *Journal of Economics and Management Strategy*, 5, 5-25. DOI: 10.1111/j.1430-9134.1996.00005.x.
- Brettel, M., Strese, S., Flatten, T.C. 2012. Improving the performance of business models with relationship marketing efforts – An entrepreneurial perspective. *European Management Journal*, Elsevier, 30(2), 85-98.
- Cantu, C., Corsaro, D., Snehota, I. 2012. Roles of actors in combining resources into complex solutions. *Industrial Marketing Management*, 81(4). DOI: 10.1016/j.jbusres.2011.05.013.
- Cardeal, G., Höse, K., Ribeiro, I., Götze, U. 2020, Sustainable Business Models–Canvas for Sustainability, Evaluation Method, and Their Application to Additive Manufacturing in Aircraft Maintenance, *Sustainability*, 12, 9130. DOI: 10.3390/su12219130.
- Chesbrough, H. 2007. Business model innovation, it’s not just about technology anymore. *Strategy and Leadership*, 35. DOI: 10.1108/10878570710833714.
- Dankiewicz, R., Ostrowska-Dankiewicz, A., Bulut, C. 2020. The attitudes of entrepreneurs of the small and medium-sized enterprises sector in Poland to key business risks. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 15(3), 511-536. DOI: 10.24136/eq.2020.023.

- Devlin, S.J., Gnanadesikan, R., Kettinger, J.R. 1975. Robust estimation and outlier detection with correlation coefficients. *Biometrika*, 62, 531-545. DOI: 10.1093/biomet/62.3.531.
- Dyer, J., Singh, H. 1998. The relational view: cooperative strategy and source of interorganizational competitive advantage. *Academy of Management Review*, 23(4). DOI: 10.5465/amr.1998.1255632.
- Falencikowski, T. 2012. Strategia a model biznesu. Podobieństwa i różnice, [in:] Kaleta, A., Moszkowicz, K. (et. al.), *Zarządzanie strategiczne w praktyce i teorii*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław.
- Ferreira, F.N.H., Proenca, J.F., Spencer, R., Cova, B. 2013. The transition from products to solutions: External business model fit and dynamics. *Industrial Management*, 42.
- Grönroos, C., Voima, P. 2012. Critical service logic: Making sense of value creation and co-creation, *Journal of the Academy of Marketing Science*, 41(2), 133–150. DOI: 10.1007/s11747-012-0308-3.
- Grönroos, C. 2008. Service logic revisited: Who creates value? And who co-creates?. *European Business Review*, 20(4), 298-314.
- Heinonen, K., Strandvik, T., Mickelsson, K.-J., Edvardsson, B., Sundström, E., Andersson, P. 2010. A customer-dominant logic of service. *Journal of Service Management*, 21(4), 531-548. DOI: 10.1108/09564231011066088.
- Hu, B., Huang, W., Yan, S., Liu, G., Zhang, T. 2020. Business Model Design and Customer Loyalty: The Mediating Role of Customer Citizenship Behavior, *Sustainability*, 12, 7047.
- Kotler, Ph. 2005. *Marketing*. Rebis, Poznań, 232.
- Linder, J., Cantrell, S. 2020. *Changing Business Models: Surveying the Landscape*. Accenture Institute for Strategic Change.
- Magretta, J. 2002. Why business models matter?. *Harvard Business Review*, 80(5), 86-92.
- Marks-Bielska, R., Lizińska, W., Wojarska, M., Babuchowska, K. 2020. Institutional efficiency versus stability of local governments in basic areas of activity: the case of Poland. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 15(3), 463–487. DOI: 10.24136/eq.2020.021.
- Marx, K. 1985. *Capital*. Essays 1-3, 23-25.
- Morris, M., Schindehutte, M., Richardson, J., Allen, J. 2006. Is the business model a useful strategic concept? Conceptual, theoretical and empirical insights. *Journal of Small Business Strategy*, 17(1).
- Ng, I.C.L., Ding, D.X., Yip, N. 2013. Outcome-based contracts as new business model: role of partnership and value-driven relational assets. *Industrial Marketing Management*, 42(5). DOI: 10.1016/j.indmarman.2013.05.009.
- Norman, R., Ramirez, R. 1993. From value chain to value constellation. *Harvard Business Review*, 71(4).
- Oliński, M., Szamrowski, P. 2016. The Impact of EU Funds on the Development of a Business Model for Small and Medium-Sized Enterprises. *Olsztyn Economic Journal*, 11(2). DOI: 10.31648/oej.2918.
- Osterwalder, A., Pigneur, Y. 2010. *Business Model Generation*. John Wiley and Sons Inc., New Jersey. DOI: 10.1111/j.1540-5885.2012.00977_2.x.
- Osterwalder, A., Pigneur, Y., Tucci, C.L. 2005. Clarifying business models: origins, present and future of the concept. *Communications of the AIS*, 15(may), 2-40.
- Pisar, P., Bilkova, D. 2019. Controlling as a tool for SME management with an emphasis on innovations in the context of Industry 4.0. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 14(4), 763-785. DOI: 10.24136/eq.2019.035.

- Rajala, R., Westerlund, M. 2007. Business models – a new perspective of firms' assets and capabilities: observations from the Finnish software industry. *The international Journal of Entrepreneurship and Innovation*, 8(2), 115-126. DOI: 10.5367/000000007780808039.
- Rappa, M.A. 2004. The utility business model and the future of computing service. *IBM Systems Journal*, 43. DOI: 10.1147/sj.431.0032.
- Rudzewicz, A. 2018. Trust measurement in an enterprise, A conceptual approach. *Olsztyn Economic Journal*, 13(4). DOI: 10.31648/oj.2742.
- Sikorski, M., Brodnicki, K. 2018. Wpływ usług on-line na budowanie pozytywnych relacji i lojalności klienta. *Roczniki Kolegium Analiz Ekonomicznych*, 52, 232.
- Smith, A. 1993 *Anthology of Economic Classics.*: Smith, A., Ricardo, D., Moscow, Economy, 175.
- Sobczyk, M. 2007. *Statystyka*. Wydawnictwo Naukowe PWN, Warszawa, 57.
- Stahler, P. 2002. Business models as a unit of analysis for strategizing. In *Proceedings of 1st International Workshop on Business Models*, Lausanne, Switzerland, Available online: <http://www.business-model.innovation.com/english/definitions.html>.
- Stephens, M.A. 1992. Introduction to Kolmogorov On the Empirical Determination of a Distribution. [in:] Kotz, S. Johnson, N.L. 1992. *Breakthroughs in Statistics*. Springer Series in Statistics (Perspectives in Statistics). Springer, New York.
- Treacy, M., Wiersemy, F. 1995. *The Discipline of Market Leaders*, Addison-Wesley.
- Vargo, S. L., Lusch, R.F. 2004. Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1–17. DOI: 10.1509/jmkg.68.1.1.24036.
- Weill, P., Vitale, M.R. 2001. *Place to space*. Harvard Business School Press, Boston.
- Woodall, T. 2003. Conceptualising 'Value for the Customer': An Attributional, Structural and Dispositional Analysis, *Academy of Marketing Science Review*, 1.
- Wyszyński, A. 2016. Efficiency of football clubs in Poland. *Olsztyn Economic Journal*, 11(1). DOI: 10.31648/oj.2902.